A FORCE FOR GOOD

INTEGRATED ANNUAL REPORT 2023-24
HINDALCO INDUSTRIES LIMITED

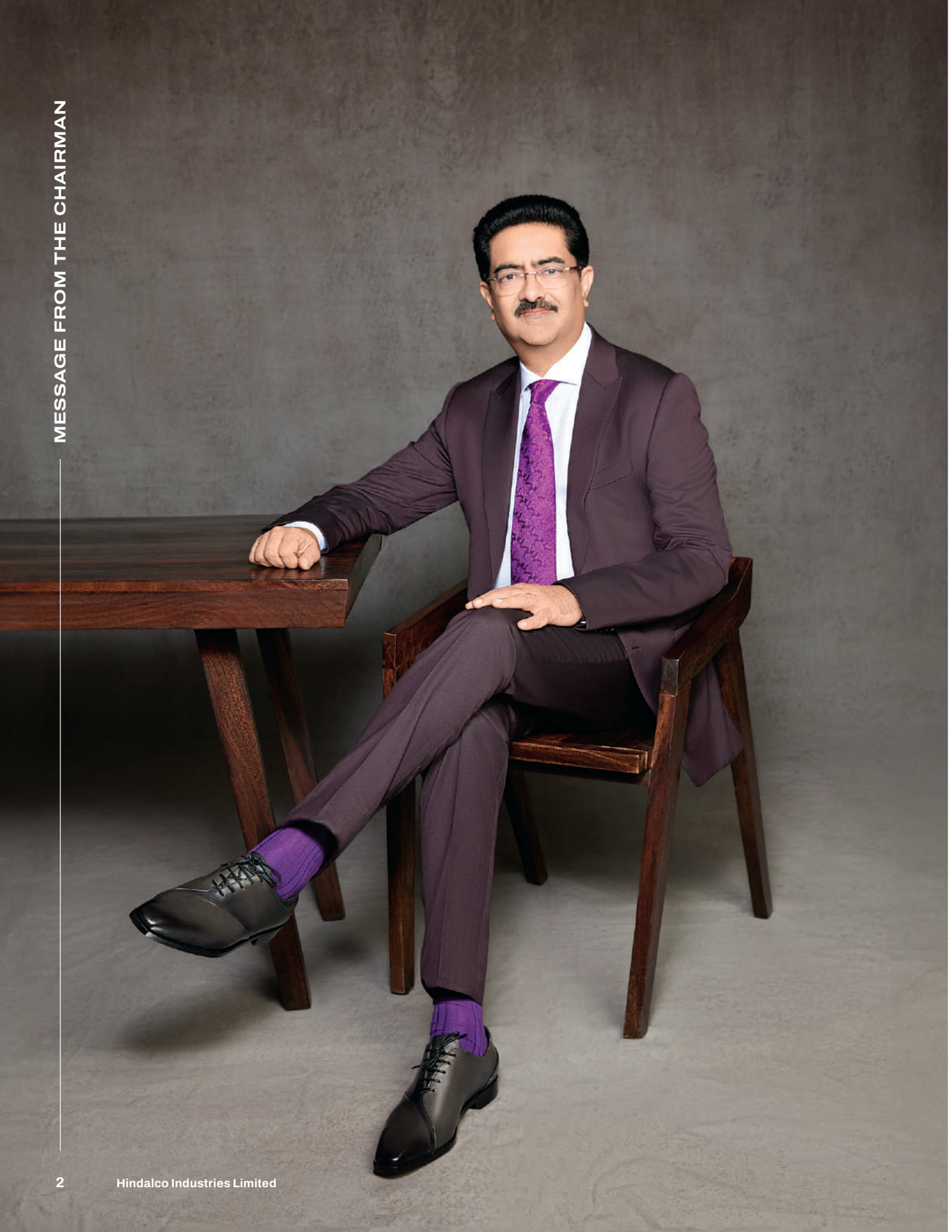
Mr. Aditya Vikram Birla

14.11.1943 – 01.10.1995

WE LIVE BY HIS VALUES.
INTEGRITY, COMMITMENT, PASSION, SEAMLESSNESS, SPEED

Our Group Purpose Statement

To enrich lives, by building dynamic and responsible businesses and institutions, that inspire trust.



Dear Shareholders,

In an era marked by unprecedented global challenges, the imperative for businesses to transcend conventional paradigms has never been more pressing. At the Aditya Birla Group, we recognise that our success is intrinsically tied to the well-being of society and the planet we inhabit. As custodians of progress and stewards of sustainable growth, we embrace the ethos of being a force for good in all facets of our operations. At the heart of our philosophy lies the conviction that business can and must serve as a catalyst for positive change. Beyond the pursuit of profit margins, we envision a world where economic prosperity harmonises with social welfare and environmental stewardship.

This vision guides our strategic decisions, propelling us to harness the transformative power of business to create collective prosperity. Being a force for good entails a multifaceted approach that extends across our entire value chain. From fostering inclusive growth and empowering local communities to mitigating environmental impact and creating prosperity for our nation and its people, our commitment to operating responsibly is woven into the fabric of our business endeavours. It is part of our DNA and our legacy. It defines who we are.

By creating value for all stakeholders – shareholders, employees, customers, and society at large – we aim to nurture an ecosystem of mutual benefit and collective advancement. This philosophy underpins our unwavering dedication to ethical governance, transparent communication, and responsible business practices. As we navigate the complexities of a rapidly evolving world, we remain steadfast in our commitment to being agents of positive change.

Guided by our Purpose 'To enrich lives, by building dynamic and responsible businesses and institutions, that inspire trust', and by leveraging our resources, expertise, and influence, we aspire to be a catalyst for meaningful impact, shaping a future where business serves as a force for good in everything that we touch and do.

Global Economy: Resilience in Motion

The global economy exhibited remarkable resilience and divergence during 2023, defying fears of stagflation and recession. Increased government spending, notable labour force participation, and continued household consumption growth supported global economic growth last year. Despite substantial interest rate hikes by central banks, economic activities worldwide grew steadily, buoyed by household demand fuelled by pandemic savings and supportive policies in mortgage and housing markets. These growth drivers mitigated the impact of policy rate increases. Major central banks, led by the US Federal Reserve, have likely reached their peak rate hikes. Expectations are for rate cut initiations during the latter part of 2024, signalling cautious optimism for the global economy and financial markets. Global economic growth is estimated at 3.2 percent in 2023 and projected to continue at the same pace in 2024 and 2025, albeit these growth rates are at historically low levels.

The US economy was a standout in 2023, with GDP growth exceeding long-run averages at 4.9% in Q3 and 3.4% in Q4, driven by robust services growth and a resurgence in manufacturing activity.

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Simultaneously, as the Fed raised rates and supply constraints eased, inflation declined to 1.7% in Q4, undershooting the 2% target. This "miracle" of strong growth and low inflation defied the recessionary predictions of most economists.

In contrast, Europe slowed to just 0.4% GDP growth in 2023, weighed down by reduced household spending from elevated energy costs tied to the Russia-Ukraine conflict and tighter monetary policy. Prospects for 2024 remain subdued at 0.8% growth, constrained by strained fiscal positions limiting any growth impetus.

China experienced a 5.2% growth rate in 2023 and is projected to expand by 5% in 2024 and 4.5% in 2025, bolstered by policy support measures. However, a protracted property crisis remains a major drag on growth.

Global economic prospects have improved as major economies have averted a severe downturn, reducing inflation without raising unemployment. However, the outlook remains cautiously optimistic. Persistent challenges include prolonged high interest rates, debt sustainability issues, ongoing geopolitical tensions, and escalating climate risks, all of which continue to impede growth.

India: Leading the Way

Yet, for India, the picture is promising amidst a globally uncertain macroeconomic environment. India's economy has shown resilience, with real GDP growth of 8.2% in FY 2023-24, making it the fastest-growing major economy and the fifth largest globally. Structural reforms and domestic household demand are key drivers of India's growth. Inflation has eased, supported by monetary policy actions and supply-side interventions. India is expected to grow at 7.2% in FY 2025.

The banking sector has seen improvements in earnings, governance, and balance sheets. Non-banking financial companies (NBFCs) also show sound performance, contributing to credit growth in the private sector. Prudent policies and regulatory measures aim to safeguard financial stability in India. The Indian rupee has managed relative stability supported by improved external balances, including a moderation in the current account deficit and robust forex reserves. Increased services exports have been supportive of the external balance. India's FinTech ecosystem, supported by initiatives like the Unified Payments Interface (UPI), has transformed financial services, promoting inclusion and digitisation.

Hence, despite global challenges, the Indian economy is poised for sustained growth. We believe collective actions and focused measures by the government have helped overcome past challenges and will realise India's growth potential in the future. To summarise, the Indian economy has demonstrated resilience, supported by reforms, low core inflation, and a sound financial sector. Continued focus on reforms will see India emerge as a key global growth engine.

Aditya Birla Group: In Perspective

Amid this economic backdrop, the Aditya Birla Group's strong performance in FY 2023-24 stands as a testament to our unwavering commitment to purpose-driven growth, driving sustained value creation for stakeholders across our diverse business portfolio.

This success is underpinned by our exceptional talent pool, whose dedication and entrepreneurial spirit are the true catalysts for our sustained achievements.

This year, we have advanced our purpose-driven approach to business by integrating our purpose in every stage of the employee life cycle: hiring, induction, learning, performance appraisal and continuous employee connect.

Being the force for good for ABGites: By enabling employees to develop capabilities and achieve their true potential. 186 learning events covering 4700+ ABGites were held by Gyanodaya, our Learning and Leadership Development Center. In addition, 14000+ ABGites were covered through outreach programmes, done closer to the employees in our Units / offices all over the globe. Robust digital learning, enabled 81% of the employees to learn at their convenience around topics of interest and need.

> *Aditya Birla Group stands at an exciting juncture. Many of our businesses are poised for transformational growth, while new ventures are emerging with a lot of promise. We are not just expanding in size but also diversifying in scope across various industries and regions.*

Our leaders play a crucial role in strengthening the succession pipeline. Through Business and Functional Talent Councils, they set the vision for their respective areas, identify the future capabilities needed for success, review the availability of talent, and agree on actions to enhance the talent pipeline.

This year, over 12,000 employees (99% of the eligible population) underwent potential assessments, enabling us to identify high-potential talent across all levels and prepare them for leadership succession. As a result, 56% of critical mid and senior-level positions were filled through our internal pipeline. Additionally, the internal and external hiring ratio for senior management roles has improved from 59:41 to 75:25 over the past three years.

Our strong employer brand enabled us to attract high-quality talent for three new businesses built grounds-up: Birla Opus, Birla Pivot and Novel Jewels. We hired 14800+ employees across levels in the management cadre, 75% of whom are millennials and Gen Z.

We have maintained our focus on strengthening gender diversity, ensuring more women are in mainstream roles and leading strategic responsibilities across various functions and regions. Currently, women make up 15.6% of our management cadre, with 277 women holding senior and top leadership positions. We are also making a special effort to increase the representation of women in technical roles. For example, we have appointed our first female unit head for the battery enclosure plant, enrolled 25 women in a one-year apprenticeship programme in core mining who will be placed in UltraTech, and have women serving as Territory Sales Managers at Birla Opus.

We strive to enrich the lives of our employees through integrated healthcare solutions that focus on their physical and emotional well-being, as well as that of their families. Our Digital Health and Wellbeing app, AB Multiply, has enrolled 26,000 employees for holistic wellness services. Additionally, over 9,000 employees have benefited from company-sponsored annual physical health check-ups. We have made significant efforts to reduce the stigma associated with mental health, ensuring that employees and their families can access professional and confidential counselling services when needed. Last year, over 1,000 employees or their family members sought help, marking an increase of more than 25%.

The results of ABG Vibes 2023, our annual engagement survey, reflect our commitment to being a force for good for our employees. The scores have improved in all areas across employee segments compared to the previous cycle: 91% of employees are proud to be associated with the Group, 93% would recommend the Group as a great place to work, and 87% see themselves working with the Group two years from now (an 8% increase from the last cycle). Additionally, 89% of employees find a sense of meaning and purpose in their work, and 91% are optimistic about the future of the business.

Indeed, the Aditya Birla Group stands at an exciting juncture. Many of our businesses are poised for transformational growth, while new ventures are emerging with a lot of promise. We are not just expanding in size but also diversifying in scope across various industries and regions.

Your Company's Performance

Your Company delivered an outstanding financial and operational performance across all business segments in FY 2023-24, despite a challenging business environment. This robust performance was propelled by record results in the Copper business and Aluminium India Upstream business, and a strong recovery in Novelis. Despite headwinds, your Company registered a consolidated EBITDA of ₹25,728 crore on a turnover of ₹2,15,962 crore.

Your Company's India Aluminium Upstream business reported industry-best EBITDA margins driven by higher volumes and strategic cost optimisation. Our Aluminium Downstream business experienced promising growth in EBITDA per tonne in the reporting year, reflecting our strategic focus on enhancing this segment. Novelis showcased improved EBITDA per tonne driven by stronger demand for beverage packaging and record automotive shipments.

₹215,962 crore
Consolidated turnover

₹25,728 crore
Consolidated EBITDA

Your Company's Copper business achieved an all-time high EBITDA, backed by record sales volumes, an enhanced product mix, and reliable operations. Copper metal sales reached a record 506 KT in FY 2023-24 versus 439 KT while CCR sales also touched a record 389 KT this year versus 347 KT in the previous year.

Novelis reported shipments of 3,673 KT, an adjusted EBITDA of $1.9 billion, and an adjusted EBITDA/tonne of $510 in the reporting year. Novelis continued to improve its product mix with the share of beverage can sheet constituting 56%, automotive body sheets at 22%, specialties at 19%, and aerospace at 3%. Novelis retained its position as the world's largest aluminium recycler, reporting a 63% share of recycled content compared to 61% in the previous fiscal year.

Your Company continues to execute its well-structured capital allocation plan, directing free cash flow towards organic growth, deleveraging, and dividend distribution. Despite repaying ₹5,145 crore of debt in the Hindalco India business during the year, your Company maintained a strong balance sheet and solid liquidity. This positions us well to drive our future organic growth plans through prudent capital allocation.

Your Company's value enhancing growth strategy remains on track to deliver organic growth projects totalling $6.9 billion over the next 3 to 5 years in Novelis and Hindalco India.

> *As a result of these efforts, we ranked among the top 1% in the aluminium industry in the S&P global (DJSI) Sustainability Yearbook of 2024 for the third time in a row.*

Novelis is pacing its growth capex spends, prioritising $4.9 billion of projects that are underway. Among these projects, Novelis' Bay Minette in North America is the most significant. The highly efficient facility is being built to serve the growing demand for sustainable aluminium solutions.

In the Hindalco India business, we are investing in enhancing technologies and processes to design multiple products and solutions for a sustainable future. We are collaborating with our customers to co-create critical components like battery enclosures, motor housings, busbars, structural and safety components, and lightweight load bodies. Many of these components, crafted with our engineered alloys and precision manufacturing capabilities, mark a first for India.

Your Company continues to focus on value-added products in copper as well, and is setting up a copper and e-waste recycling facility, and an Inner Grooved Tubes project in Gujarat, India.

On the ESG front, your Company is making good progress on its climate action targets. Our first-of-its-kind energy transition initiative is on track to begin the ramp-up of 100 MW of round-the-clock carbon-free power for our Odisha smelter. This project was recognised with the 'Energy Transition Changemaker' award at COP28, underscoring the significance of this transformative initiative.

Your Company's recent global recognitions are testimony to our differentiated ESG approach which includes targeted initiatives to achieve net zero, zero waste to landfill, no net-loss to biodiversity, and water positivity, by 2050. As a result of these efforts, we ranked among the top 1% in the aluminium industry in the S&P global (DJSI) Sustainability Yearbook of 2024 for the third time in a row.

These affirmations signify our commitment to design pioneering solutions for a greener, stronger and smarter future, driven by our belief that business can and must serve as a catalyst for positive change.

Conclusion

Your Company's multidimensional achievements underscore what has been a foundational philosophy of our group— that true corporate success is measured by the enduring value we create for all our stakeholders. And that is our legacy, our promise, and our future.

Kumar Mangalam Birla
Chairman

Aditya Birla Group (ABG), a global conglomerate with a turnover of $66 billion*, is in the league of Fortune 500 companies.

While headquartered in India, the Group has a well-diversified business portfolio with presence across 40 countries, 15 industry sectors, and employing more than 1,87,000 people.

The Group has achieved global and national market leadership in several sectors like metals, cement, pulp and fibre, chemicals, textiles, carbon black, financial services, fashion retail, telecom, real-estate, renewables amongst others. All the Group companies are driven by five core values – Integrity, Commitment, Passion, Seamlessness and Speed.

ABG strongly believes in building sustainable business models, guided by principles of responsible stewardship, stakeholder engagement and future-proofing as the core three pillars. This emanates from the Group's stated Purpose 'To enrich lives, by building dynamic and responsible businesses and institutions, that inspire trust'.

Aditya Birla Group Presence

Map not to scale.

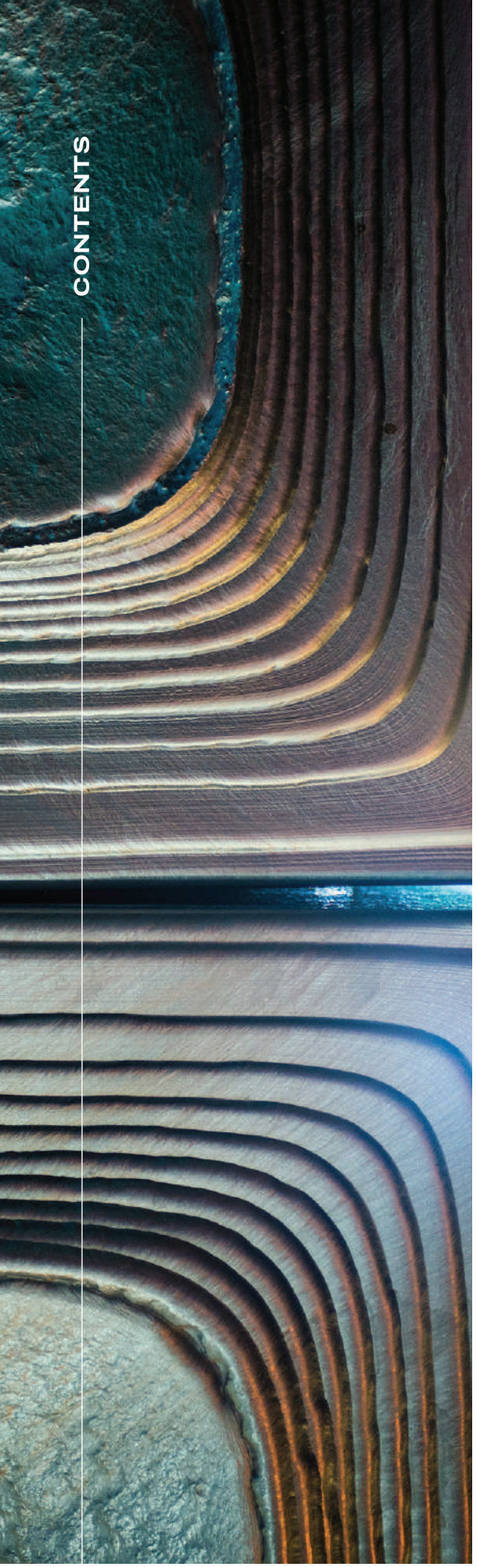
ADITYA BIRLA GROUP

15 Industry sectors

1,87,000+ Employees

40 Countries

For more details visit: **www.adityabirla.com**



CONTENTS

10

A Force for Good

12

Corporate Overview

12 Our ESG Performance
14 Hindalco at a Glance
16 Our Businesses at a Glance
18 Our Capitals and their Interlinkages
20 Our Business Model
22 Our Value Chain
24 Markets Served
26 Our Global Footprint
28 Board of Directors
30 Our Leadership Team
32 Message from the Managing Director

36

Strategic Overview

36 Our Strategic Priorities
40 Risk and Opportunities
50 Stakeholder Engagement
52 Materiality Assessment
56 Our Key Associations and Memberships

58

Creating and Sustaining Value

58 Financial Capital
66 Manufactured Capital
84 Human Capital
124 Intellectual Capital
138 Natural Capital
178 Social and Relationship Capital

210

Awards and Recognition

212

Standards and Frameworks

240

Statutory Reports

240 Report of the Board of Directors
272 Annexure
300 Social Report
306 Business Responsibility & Sustainability Report
334 Corporate Governance Report
396 Financial Highlights

400

Financial Statements

402 Consolidated Financial Statements
572 Standalone Financial Statements
718 Independent Assurance Statement on Integrated Report

About the Report

We are pleased to present Hindalco's Integrated Annual Report for FY 2023-24 which showcases our commitment to be a global force for building an inclusive and greener world. The report provides information about the connection between our strategy, operating context, policies, and governance structures to cascade performance across material aspects in the short-, medium-and long-term.

Prepared in alignment with IFRS Foundation's Integrated Reporting <IR> Framework, we have reported on the 6 capitals, Financial, Manufactured, Human, Intellectual, Natural, Social and Relationship. Through this report, we provide insights on how these capitals are employed in tandem to propel value-creation and sustainable development.

Reporting Principles

This report has been prepared in accordance with Global Reporting Initiative (GRI) 2021 standards while also abiding by the guiding principles and content elements of the Integrated Reporting <IR> Framework. The requirements of United Nations Global Compact (UNGC) principles, Business Responsibility and Sustainability Reporting (BRSR) framework of the Securities and Exchange Board of India (SEBI), IFRS Sustainability Disclosure Standards, Sustainability Accounting Standards Board (SASB), Aluminium Stewardship Initiative (ASI), World Economic Forum Metrices on Stakeholder Capitalism and United Nations Sustainable Development Goal (UN SDGs) are further mapped across the report.

The financial statements comply in all material aspects with the Indian Accounting Standards ("Ind-AS") as prescribed under section 133 of the Companies Act 2013 ("the Act"), other relevant provisions of the Act as notified under the Companies (Indian Accounting Standards) Rules, 2015, (including subsequent amendments) and other accounting principles generally accepted in India.

Reporting Period

This report presents an integrated and comprehensive overview for the period, 1 April 2023 to 31 March 2024. We intend to disclose our sustainability progress with valuable insights into key Environmental, Social and Governance (ESG) priorities in our annual integrated reporting cycle.

Scope and Boundary

The report provides holistic insights into our business strategy, risks and opportunities, challenges, performance, as well as our future outlook. The scope of the report covers financial and non-financial information regarding Hindalco Industries Limited's operations in Aluminium, Copper and Specialty Alumina businesses. The report presents information for Hindalco Industries Limited (Standalone) and Subsidiaries – Utkal Alumina International Limited, Birla Copper Asoj Private Limited, Hindalco Almex Aerospace Limited, and Novelis Inc. The data for the Bhiwadi unit has been considered only till the site was operational, i.e., February 2024. The data included in the Business Responsibility and Sustainability Report (BRSR) pertains to Hindalco India (Standalone) operation only.

Independent Assurance

The consolidated and standalone financial statements enclosed in this report have been audited by Price Waterhouse & Co. Chartered Accountants LLP. The non-financial data has been assured by Bureau Veritas (India) Private Limited. The assurance is based on the International Standard on Assurance Engagements (ISAE) 3000 (Revised) and Accountability's AA1000 Assurance Standard (AA1000AS v3). The assurance statements represent the type of assurance and indicators covered under the same. The report has been further reviewed by our senior management to ensure alignment with principles of clarity, reliability, and accuracy.

Forward-looking Statement

The Integrated Annual Report presents a comprehensive overview of our business operations, encompassing historical and forward-looking perspectives. These future reflections and risks are underpinned by projected outcomes and industry patterns. Our actual results could differ materially from our projected results due to a variety of factors. Our strategic approaches, risk mitigation plans, and objectives fall under the aegis of this disclosure.

Feedback

With annual public disclosures, our Integrated Annual Reports for previous years can be accessed on our website. The report for FY 2022-23 was released in July 2023. We value all suggestions, views, and opinions on this report which allow us to further improve our reporting and operations. We encourage you to share your views and insights regarding our performance or report by writing to us at hilinvestors@adityabirla.com or contacting us at +91 22 69477000 / 69477150.

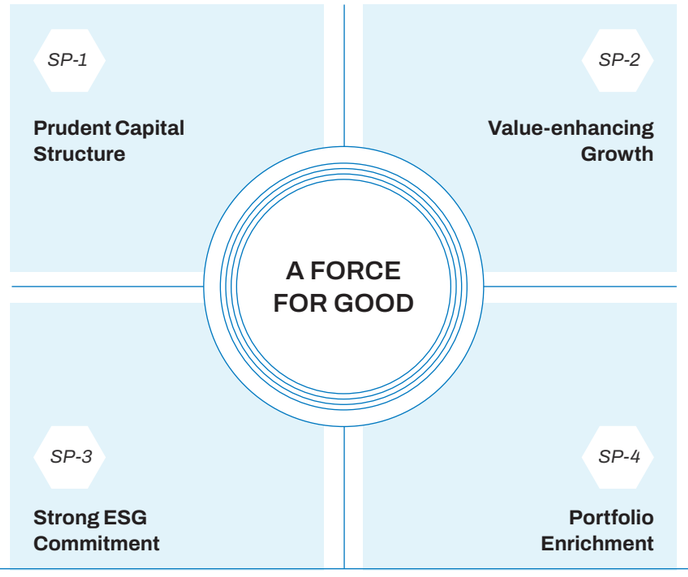
Restatement of Information

The report comprises certain restatements due to change in approach and methodology. The effects and reasons for the restatement of the data are included in the respective sections of the report. The restatements would enable consistency and comparability of information for the reporting year and previous years.

A Force for Good

Against the backdrop of the global climate crisis and economic knockouts, businesses must push the boundaries of conventional thinking and redefine their approach to driving positive change. We recognise that our success is intrinsically linked to the well-being of society and the planet. Ingrained in our DNA is the profound conviction that business can and must be a transformative **'Force for Good'**, fostering a world where economic prosperity and social welfare are harmoniously balanced with environmental stewardship. Through our responsible operations, we aim to create a legacy that inspires future generations to leave a greener and sustainable footprint.

At Hindalco, our 4 strategic priorities are the catalyst for this transformation. By prioritising Prudent Capital Structure, we create a solid foundation for sustainable growth and responsible investing. We further harness our capabilities to achieve Value-enhancing Growth that benefits our stakeholders and the environment. Through our Strong ESG Commitment we create a positive ripple effect that extends far beyond our business operations. Our Portfolio Enrichment Strategy enables us to seek new opportunities to expand our business and create value for all stakeholders. By harmonising these 4 strategic priorities, we accelerate our purpose of being a 'Force for Good'.



At Hindalco, we are dedicated to making a meaningful difference in the lives of all stakeholders including our employees, customers, and the communities we serve. A robust governance structure and people-centric policies enable us to nurture a safe and inclusive culture for our employees to thrive. Our investments in innovation and the areas of healthcare, education, sustainable livelihood, infrastructure development, and social change across communities transform lives for 'good'. As a sustainability champion, we are focused on reducing water consumption, and waste generation, and promoting renewable energy sources. Our recycling capabilities at Novelis reduce our ecological footprint by maximising the recycling potential of materials and minimising waste.

Through these collective efforts, we create sustainable products and solutions that make the world greener, stronger and smarter.

Measuring our Success

Environment

60% ↑
Installed renewable capacity (without storage) from FY 2022-23*

19.54% ↓
In specific greenhouse emissions for aluminium from base year FY 2011-12*

5 Mines
Certified for Water Positivity and 15 plants ZLD*

85%
Recycling of non-hazardous and hazardous waste

17
Biodiversity Management Plans (BMPs) for high priority areas*

Social

71,000+
Global workforce**

5% ↓
In LTIFR from FY 2022-23**

2.5 million+
Beneficiaries supported**

₹154.16 crore
Community expenditure**

86.1
Customer satisfaction score achieved (Novelis)

Governance

₹215,962 crore
Revenue from operations**

₹848 crore
R&D spend**

1.33 million MT
Highest ever primary aluminium metal production*

560
Patents granted**

53
New products and applications developed**

** Hindalco India*
*** Global Operations: Includes Hindalco India and Novelis*

ZLD – Zero Liquid Discharge
LTIFR – Lost Time Injury Frequency Rate

The wetland in Kathautia mining pit is home to several species of birds. Hindalco is committed to create and preserve all critical habitats in accordance with our No Net Loss to Biodiversity commitments

Connecting Industries for Transformative Progress

Hindalco Industries Limited, the metals flagship of the Aditya Birla Group, is one of the largest aluminium rolling and recycling companies across the globe, a major copper player, and a leading player in specialty alumina.

Our integrated business model encompasses the entire value chain from bauxite mining, alumina refining, coal mining, captive power generation, and aluminium smelting, to downstream value-added products and solutions. Our position in the global metals market is underscored by our status as one of the largest producers of primary aluminium in Asia and one of the largest manufacturer of copper cathode rods (excluding China).

Our copper division operates one of Asia's largest custom copper smelters at a single location with a captive jetty in Dahej, Gujarat. It caters to some of India's refined copper requirements. Our Specialty Alumina business is one of the leading players in India and has established its position as a global player in specialty alumina and hydrates.

A modern extrusions line at Renukoot plant

52
Manufacturing Units

23
Mines (Bauxite and Coal)

₹215,962 crore
Revenue *(FY 2023-24)*

₹25,728 crore
Consolidated EBITDA *(FY 2023-24)*

₹125,945 crore
Market Capitalisation *(31 March 2024)*

Vision

To be a premium metals major, global in size and reach, excelling in everything we do, and creating value for our stakeholders.

Mission

To relentlessly pursue the creation of superior shareholder value, by exceeding customer expectations profitably, unleashing employee potential, while being a responsible corporate citizen, adhering to our values.

Values

Integrity
Honesty in every action

Commitment
On the foundation of integrity, doing what it takes to deliver, as promised

Passion
Missionary zeal arising out of an emotional engagement with work

Seamlessness
Thinking and working together across functional silos, hierarchy levels businesses and geographies

Speed
Responding to stakeholders with a sense of urgency

Hindalco's wholly-owned subsidiary, Novelis, is the World's largest recycler of aluminium and a leading producer of flat-rolled aluminium products. It offers innovative solutions to diverse industries, including beverage cans, automobiles, aerospace, and specialty markets such as foil packaging, transportation products, and architectural, industrial, and consumer durables.

Our wholly-owned subsidiary, Novelis, is the World's largest recycler of aluminium and a leading producer of flat-rolled aluminium products.

Our operations span 20 plants and 23 mines in India as well as 32 plants overseas belonging to Novelis. Out of these 32 plants overseas, 14 have recycling capabilities.

We are dedicated to optimising our operations and resources, utilising new technologies, expanding our portfolio of value-added products, enhancing our renewable energy portfolio, and building distinct B2B and B2C business models.

A Vantage Point

Aluminium

One of Asia's largest producers of primary aluminium and a global leader in aluminum flat rolled products.

UPSTREAM

OPERATIONS

- Bauxite Mining
- Alumina Refining
- Smelting

PRODUCTS

- Alumina
- Primary Aluminium in the form of ingots, billets and wire rods

DOWNSTREAM

- Manufacturing of value-added products

- Flat rolled products, including foils
- Extrusions

PRODUCTION CAPACITY

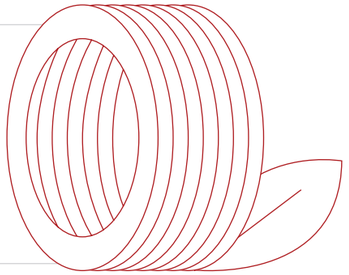
1.34 million MT
Primary Aluminium

0.43 million MT
Aluminium VAP

4.2 million MT
Aluminium Rolling (Novelis)

Copper

Products known for high purity and quality in domestic as well as global markets.



PRODUCTION CAPACITY

0.42 million MT
Copper Cathode

0.54 million MT
Copper Rods

OPERATIONS

- Custom copper smelters
- Refineries
- Rod plants
- Captive power plant
- Captive oxygen plant
- Precious metal recovery plant
- Captive jetty and other utilities

PRODUCTS

- LME grade copper cathodes
- Continuous cast copper rods
- Precious metals – gold and silver

PRODUCTION CAPACITY

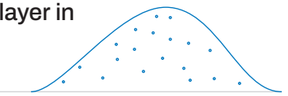
3.74 million MT
Total Alumina*

0.46 million MT
Specialty Alumina

** including 0.46 million MT of Specialty Alumina at Belagavi and Muri*

Specialty Alumina

Recognised as a prominent global player in specialty alumina and hydrates.



OPERATIONS

- Manufacturing of chemicals

PRODUCTS

- Coarse alumina hydrate
- Metallurgical alumina
- Specialty alumina and alumina hydrate

Synergising Resources

Financial Capital

The financial resources that we deploy in manufacturing and enabling, developing our products and strategy.

Manufactured Capital

The infrastructure, technology, and processes that we use while manufacturing and developing our products.

Human Capital

The pool of talented and diversified employees that assist us in the development of our products and strategies.

Intellectual Capital

It signifies our collaborations, partnerships and efforts towards research and development to integrate innovation into our products.

Natural Capital

The business resources that we derive from the ecosystem.

Social and Relationship Capital

Our relationship with stakeholders to build a thriving society, maintain our brand and develop strong financial fundamentals.

Capitals Impacted

Financial Capital	Manufactured Capital	Human Capital	Intellectual Capital	Natural Capital	Social and Relationship Capital
M, I, H, S, N	F, I, H, S, N	F, I, S	F, M, N	F, H, I, M, S	F, H, M

Key Strategic Priorities

Financial Capital	Manufactured Capital	Human Capital	Intellectual Capital	Natural Capital	Social and Relationship Capital
SP-1 Prudent Capital Structure	SP-2 Value-enhancing Growth	SP-2 Value-enhancing Growth	SP-2 Value-enhancing Growth	SP-3 Strong ESG Commitment	SP-2 Value-enhancing Growth
SP-2 Value-enhancing Growth	SP-3 Strong ESG Commitment	SP-3 Strong ESG Commitment	SP-3 Strong ESG Commitment		SP-3 Strong ESG Commitment
	SP-4 Portfolio Enrichment		SP-4 Portfolio Enrichment		

Key Risks

Financial Capital	Manufactured Capital	Human Capital	Intellectual Capital	Natural Capital	Social and Relationship Capital
R4, R6, R8	R2, R4, R5, R8	R6	R3, R10	R1, R5, R6, R7, R9	R2

Key Stakeholders

Financial Capital
- Workforce
- Investors and shareholders

Manufactured Capital
- Investors and shareholders
- Suppliers/Vendors
- Regulatory Authorities/ Industry Associations
- Media

Human Capital
- Workforce
- Regulatory Authorities/ Industry Associations
- Media

Intellectual Capital
- Media
- Consumers
- Investors and shareholders
- Suppliers/Vendors

Natural Capital
- Investors and shareholders
- Customers
- Regulatory Authorities/ Industry Associations
- Media
- Consumers

Social and Relationship Capital
- Customers
- Suppliers/Vendors
- Regulatory Authorities/ Industry Associations
- Media

SDGs Impacted

Financial Capital	Manufactured Capital	Human Capital	Intellectual Capital	Natural Capital	Social and Relationship Capital
8 Decent Work and Economic Growth	8 Decent Work and Economic Growth; 9 Industry, Innovation and Infrastructure; 12 Responsible Consumption and Production	4 Quality Education; 5 Gender Equality; 8 Decent Work and Economic Growth; 10 Reduced Inequalities	9 Industry, Innovation and Infrastructure; 12 Responsible Consumption and Production	6 Clean Water and Sanitation; 7 Affordable and Clean Energy; 9 Industry, Innovation and Infrastructure; 12 Responsible Consumption and Production; 13 Climate Action; 15 Life on Land	1 No Poverty; 2 Zero Hunger; 3 Good Health and Well-Being; 4 Quality Education; 5 Gender Equality; 6 Clean Water and Sanitation; 7 Affordable and Clean Energy; 8 Decent Work and Economic Growth; 9 Industry, Innovation and Infrastructure; 10 Reduced Inequalities; 11 Sustainable Cities and Communities; 12 Responsible Consumption and Production; 15 Life on Land

Risks and Opportunities

R1 Increased focus on decarbonisation
R2 Supply chain risks
R3 Cyber security and data protection risks
R4 Price volatility of commodities (Aluminium, Copper)
R5 Changes in the regulatory requirements
R6 Stakeholders' focus on ESG
R7 Solid waste management
R8 Increased import of aluminium
R9 Depletion of natural resources
R10 Product development strategy risks

Aligning Vision and Strategy

INPUTS

Financial Capital
₹106,146 crore Equity
₹54,501 crore Gross debt
₹24,056 crore Operating cash flow

Manufactured Capital
52 Manufacturing plants
23 Mines*

Production Capacity
3.74 million MT of Total Alumina
(including **0.46 million MT** of Specialty Alumina)**
1.34 million MT Primary Aluminium
0.43 million MT Aluminium Downstream VAP (FRP, Extrusions & Foils)
0.42 million MT of Copper Cathodes
0.54 million MT of Copper Downstream VAP (CCR)
4.2 million MT of Novelis Rolling capacity

Human Capital
71,000+ Total workforce
₹28.24 crore Investment in trainings & development*
Organisational effectiveness calendar

Intellectual Capital
₹848 crore R&D expenditure
311 Number of patents filed
15 Number of R&D and Innovation centres
New collaborations and associations

Natural Capital
12.82 million MT Material consumption*
97.62 million m³ Water consumption
63.10% Recycled input material for Novelis
320.91 million GJ Energy consumption
2.12 million GJ Renewable energy consumption
₹ 2,054.58 crore Environmental investments
Biodiversity risk assessment and technical standards for all operating sites*

Social and Relationship Capital
₹ 154 crore Community expenditure
12,182 tier-1 supplier base*
₹ 159,093 crore Procurement spend

** Represents data for India operations*
*** Includes specialty alumina at Belagavi and Muri*

GUIDED BY OUR VISION AND VALUES

ALIGNED WITH OUR STRATEGIC PRIORITIES

We manufacture materials that make the world Greener, Stronger, Smarter

Mining

Resources *(Raw Material)*

Products

Aluminium
- **Primary** *(Ingots, Billets, Wire rods)*
- **VAP** *(FRP, Extrusion, Foil)*

Copper
- **Primary** *(Cathodes)*
- **VAP** *(CCR)*

Specialty Alumina *(Chemicals)*
- **End-use VAP** *(Refractory, Electronics, Solid-Surface Application, Flame Retardants, Advanced Ceramics and Catalysts)*

SUPPORTED BY OUR STAKEHOLDERS ACROSS VALUE CHAIN

OUTPUTS

Planet-friendly and future focused metals

Aluminium
Primary Aluminium
1.33 million MT
Flat-Rolled Products produced
0.30 million MT
Extrusions
0.07 million MT
Foils
0.03 million MT

Copper
Cathodes
0.37 million MT
Rods
0.49 million MT

Alumina
Metallurgical and chemical alumina
3.66 million MT

Novelis
FRP
3.67 million MT

Emissions
GHG emissions (Scope 1 & 2)
29.96 million tCO_2e
NOx emissions
42.03 '000 MT
SOx emissions
90.33 '000 MT
PM emissions
15.91 '000 MT

Waste
Waste generated
13.08 million MT
Waste disposed to landfills
0.27 million MT
Bauxite residue & ash utilised*
9.34 million MT

OUTCOMES

Financial Capital
₹215,962 crore Revenue
₹25,728 crore EBITDA
₹10,155 crore PAT
10.1% Return on Equity
1.21x Consolidated net debt to EBITDA
Net Debt-Free Hindalco India operations*
11.37% Return on Capital Employed

Manufactured Capital
Highest-ever primary aluminium metal production
3.97% Y-o-Y growth in alumina production*
19.31% Y-o-Y growth in copper cast rods production*
100% IT systems **ISO 27001-certified**
Integrated Management System Certification
(ISO 9001, ISO 14001, ISO 45001) at corporate and all locations

Human Capital
12.92% Total female workforce
3.43 million hours of trainings provided
7.87% Employee turnover rate*
92% Employee engagement score*
2,874 Employees hired
5% Reduction in LTIFR

Intellectual Capital
560 Number of patents granted
53 new products and applications developed
Net Zero Lab in Sierre, Valais canton, Switzerland

Natural Capital
2.24 million GJ Energy savings
19.54% Reduction in specific GHG emissions from FY 2011-12*
8.46% Reduction in specific freshwater consumption for aluminium (baseline FY 2018-19)*
21 (sites and mines) with biodiversity management plans and 15 with green belt management plans*
85% Waste utilisation
4.48% Increase in cumulative green cover*
Carbon sequestration study completed for **11 sites***

Social and Relationship Capital
2.5 million+ Lives touched
80% NPS Score for Copper*
75% NPS Score for Specialty Alumina*
86.1 Customer Satisfaction Score for Novelis
56% of significant tier-1 suppliers assessed*

The Path to Excellence

Our manufacturing processes are driven by innovation and sustainability throughout our value chain

1 **MINING**

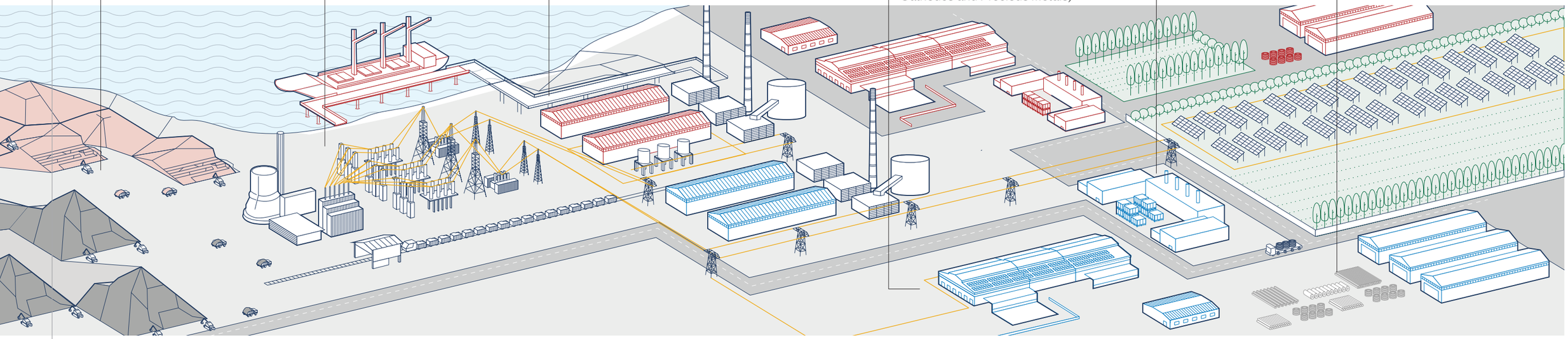
2 **RESOURCES** *(Raw Materials)*

3 **PRODUCTION**

4 **SPECIALTY ALUMINA & PRIMARY METAL** *(Aluminium, Copper Cathodes and Precious Metals)*

5 **CASTING & RECYCLING**

6 **VALUE-ADDED PRODUCTS**



Our Offerings

Aluminium

Primary Applications
Ingots, EC wire rods, Billets

Flat Rolled Applications
ACP stock, Circles, Closure stock, Clad and Finstock, Foil stock, Litho stock, Hard alloys, HR plates, Building sheets, General engineering product

Foil Applications
Flexible packaging, Pharmaceutical, House foil/Semi Rigid containers

Extrusion Applications
Automotive, Industrial machinery, Defence, White goods, Electronics, Constructions

Transport Solutions
Light-weighting applications and solutions in commercial and personal mobility segments, Automotive applications

Precision Fabricated Applications
Building and construction

Copper

Power Industry
Conductors for transformer, Generators and power equipment, House wire cable and power cable

Automotive Industry
Wiring harness, Casting components, Motors

Electronics Industry
Specialised wires, Copper foil, Circuit boards

Consumer Goods
Winding wires, Cable and home appliances, Pumps and motors

Construction
Piping, Earthing, Plumbing, Building wires

Specialty Alumina

Calcined Alumina
Ceramics
Refractories
Polishing
Flame retardants

Alumina Hydrate
Coarse alumina hydrate
Fine alumina hydrate

Aluminium (A)

+ Automotive and Transport
+ Building and Construction
+ Defence
+ Electricals and Electronics
+ Industrial Applications
+ Pharmaceuticals and Packaging
+ Consumer Durables
+ Alternate Energy
+ Commercial Vehicle Offerings
+ Personal Mobility

Copper (C)

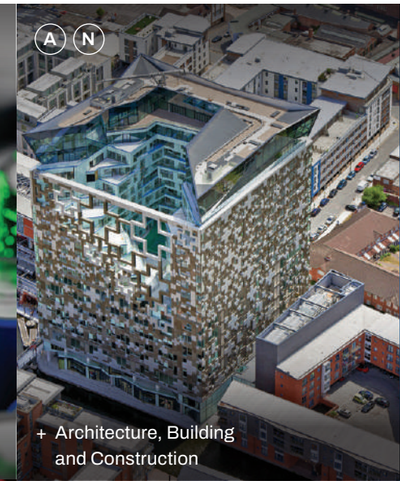
+ Automotive and Transport
+ Electrical Equipment
+ Railways
+ Wire and Cable

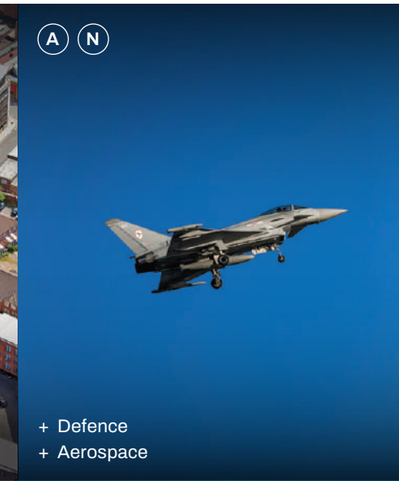
Specialty Alumina (S)

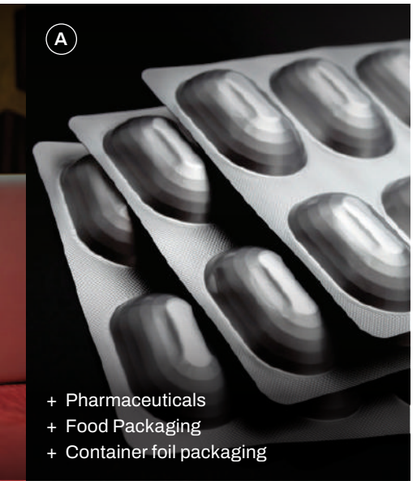
+ Ceramics
+ Refractories
+ Polishing
+ Flame Retardants
+ Coarse Alumina Hydrate
+ Fine Alumina Hydrate

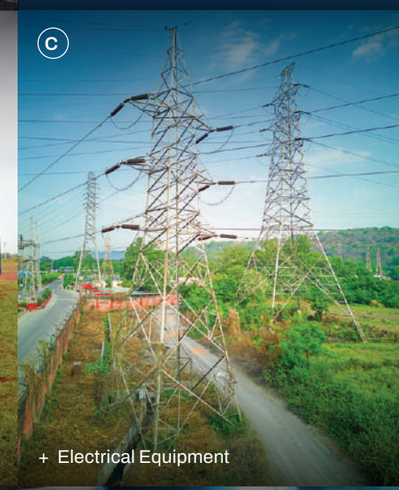
Novelis (N)

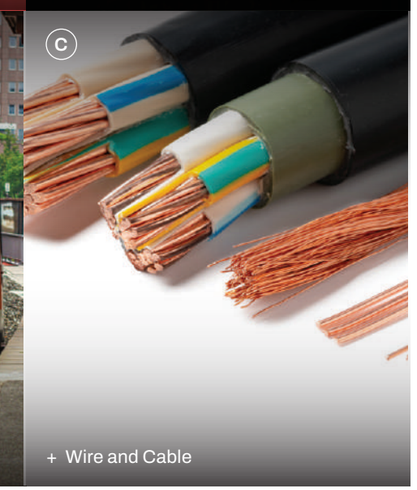
+ Beverage and Food Packaging
+ Automotive Structures and Body Panels
+ Electric Vehicle Battery Enclosure
+ Heat Exchangers
+ Commercial Transportation Applications
+ Aerospace Fuselage and Wing Structure Components
+ Industrial Goods
+ Container Foil Packaging
+ Painted Products
+ Electronics
+ Technical Foil Products
+ Commercial Plate
+ Architecture, Building & Construction
+ Signage

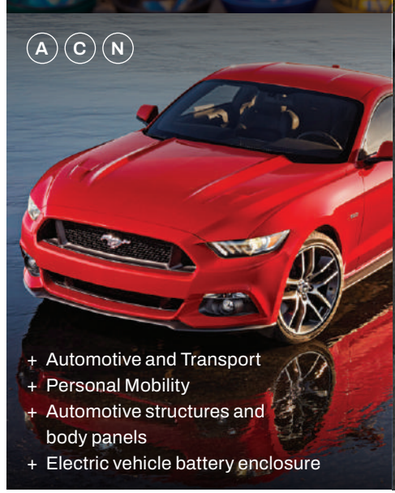












Our products cater to a multitude of industrial and commercial requirements – from aerospace and automotive components to pharmaceuticals and packaging.

Setting Standards Worldwide

We are primarily involved in the business of aluminum, copper and specialty alumina operating across 10 countries with 52 Manufacturing units. Our operational footprint across India has been indicated on the map.

52
Manufacturing units

10
Countries

DOMESTIC OPERATIONS

Bauxite
Chhattisgarh
+ Samri

Jharkhand
+ Lohardaga
+ Netarhat

Odisha
+ Baphlimali

Coal
Chattishgarh
+ Gare Palma

Jharkhand
+ Chakla
+ Kathautia

CPP
Gujarat
+ Dahej

Jharkhand
+ Muri

Madhya Pradesh
+ Mahan

Odisha
+ Aditya Aluminium
+ Hirakud S&P
+ Utkal Alumina

Uttar Pradesh
+ Renukoot
+ Renusagar

Refinery
Jharkhand
+ Muri

Karnataka
+ Belagavi

Odisha
+ Utkal Alumina

Uttar Pradesh
+ Renukoot

Smelter
Madhya Pradesh
+ Mahan

Odisha
+ Aditya Aluminium
+ Hirakud S&P

Uttar Pradesh
+ Renukoot

Copper
Gujarat
+ Asoj
+ Dahej

Rajasthan
+ Bhiwadi

Extrusion/FRP/Foil
Andhra Pradesh
+ Kuppam

Kerala
+ Alupuram

Maharashtra
+ HAAL
+ Mouda
+ Taloja
+ Chakan (Pune)

Dadra & Nagar Haveli and Daman & Diu
+ Silvassa

Odisha
+ Hirakud FRP

Uttar Pradesh
+ Renukoot

West Bengal
+ Belur works

Note: The map is not to scale and an artistic representation only.

NOVELIS' GLOBAL OPERATIONS

Novelis is a leading sustainable aluminium solutions provider and global leader in aluminium rolling and recycling. With a network of advanced facilities across North America, Europe, Asia, and South America, Novelis delivers high-quality products worldwide.

R&D/Technology Centre
+ Germany
+ South Korea
+ Switzerland
+ UK
+ USA

Cold Rolling
+ Brazil
+ Germany
+ Italy
+ South Korea
+ Switzerland
+ USA

Casting
+ Brazil
+ China
+ Germany
+ Italy
+ South Korea
+ Switzerland
+ USA

Automotive Finishing
+ Canada
+ China
+ Germany
+ UK
+ USA

Finishing Lines
+ Brazil
+ Germany
+ Italy
+ South Korea
+ Switzerland
+ USA

Hot Rolling
+ Brazil
+ China
+ Germany
+ South Korea
+ Switzerland
+ USA

BOARD OF DIRECTORS

Dr. Vikas Balia
Independent Director
AC RM&ESG
I F R T S C E G

Mr. Praveen Kumar Maheshwari
Whole-Time Director & CFO
RM&ESG FC
I F R H T S C E G

Mr. Kumar Mangalam Birla
Non-Executive Director, Chairman
NRC
I F M R H T S C E G

Mr. Satish Pai
Managing Director
SRC CSR RM&ESG PIT FC
I F M R H T S C E G

Mr. Sudhir Mital
Independent Director
SRC CSR
I F H S C E G

Mr. Arun Adhikari*
Non-Executive Director
AC NRC RM & ESG
F M R H T S C E G

Mr. Kailash Nath Bhandari
Independent Director
AC NRC SRC RM&ESG
I F R H S C E G

Ms. Alka Bharucha
Independent Director
I F R S C E G

Mrs. Rajashree Birla
Non-Executive Director
CSR
I C E G

Mr. Askaran Agarwala
Non-Executive Director
SRC CSR RM&ESG FC
I F M R H T S C E G

Mr. Sushil Agarwal*
Non-Executive Director
AC SRC RM & ESG
I F M R H T S C E G

Mr. Yazdi Dandiwala
Independent Director
AC NRC CSR PIT
I F R S C E G

Committees:

AC	*Audit Committee*
NRC	*Nomination and Remuneration Committee*
SRC	*Stakeholders Relationship Committee*
CSR	*Corporate Social Responsibility Committee*
FC	*Finance Committee*
RM&ESG	*Risk Management & ESG Committee*
PIT	*Prevention of Insider Trading (PIT) Regulations Committee*

Chairperson Member

Board's Collective Skill Set:

92% I Industry Knowledge *(Metals & Mining)*	42% M Marketing	67% H Human Resource	92% S Strategic Expertise	100% E Environmental and Social Sustainability
92% F Financial Literacy	83% R Risk Management	58% T Innovation, Technology and Digitisation	100% C Corporate Governance, Legal and Compliance	100% G General Management

Note:
** Appointed w.e.f 1 May, 2024*
Data as on date of this Report
For Directors' entire profile, please refer the Corporate Governance Report pg. no. 334 and on the website of the Company at www.hindalco.com

11.65 years
Average Board Tenure

OUR LEADERSHIP TEAM

Sitting *(left to right):*
Mr. Samik Basu *Chief Human Resources Officer*, **Ms. Kopal Agrawal** *Chief Procurement Officer*
Mr. Saurabh Khedekar *CEO – Chemicals Business*, **Mr. Aniruddha Kulkarni** *Chief Strategy Officer*
Mr. Satish Pai *Managing Director*, **Mr. Praveen Kumar Maheshwari** *Chief Financial Officer*
Mr. N Nagesh *Head – Renukoot Cluster*, **Mr. Mazharullah Beig** *Unit Head – Utkal Alumina*
Mr. Anil Mathew *Head – Policy Advocacy and Chief Risk Officer*, **Mr. Kailash Pandey** *Head – Sambalpur Cluster*

Standing *(left to right):*
Mr. Sukanta Das *Chief Logistics Officer*, **Mr. Chandan Agrawal** *CEO – Eternia Business*
Mr. Nilesh Koul *CEO – Downstream Aluminium Business*, **Mr. VR Shankar** *Chief Legal Officer*
Mr. S Kanakanand *Head – Manufacturing Centre of Excellence*, **Ms. Geetika Anand** *Company Secretary*
Mr. Rohit Pathak *CEO – Copper Business*, **Mr. Rajesh Kumar Gupta** *Head – Mining & Minerals*

SATISH PAI

Charting a Collective Future

Dear Stakeholders,

As a $26 billion company in metals and mining, Hindalco Industries' focus is constantly on accountability and responsibility – to investors, employees, customers, end-users, communities, and society at large. We believe that there is a deep responsibility associated with being a manufacturing powerhouse – an unwritten social contract that inspires the Company to build a collective future centered on value creation for all its stakeholders. Much of Hindalco's journey has been to this end. Our partnerships, business associations, products, innovations, initiatives, etc. underscore value creation, not just for the economy but also for individuals and communities.

With climate change and social inequality looming as global challenges, Hindalco has focused on creating models for sustainable and responsible growth. On the product side, we have innovated new alloys and crafted cutting-edge solutions that deliver on our customers' decarbonisation agenda.

Digitalisation and automation have enabled us to consistently transform operations into higher levels of efficiency and productivity, consuming lesser resources and delivering greater value. Safety, learning, wellness, culture, purpose – these are the fundamentals of our people experience. Our ESG initiatives go a long way to preserve and rejuvenate the environment and uplift local communities.

India today is poised at an economic and industrial turning point. Your Company is proud to be a part of this inspiring ride, delivering metals and materials that enable the nation's vision of progress and prosperity for all.

It's a matter of collective pride that our mantra of striving for sustainable growth has delivered strong results.

Stewards of Sustainable Growth

In a year marked by geopolitical stress and volatile macros, your Company's strong performance across all business segments stood out. Consolidated EBITDA reached ₹25,728 crore in FY 2023-24, marking a 7% growth over the previous year, driven by lower input costs, increased volumes and higher margins across all businesses.

The Copper business once again delivered an exceptional performance as demand for the strategic metal in India surged, crossing 800 KT for the first time. The Copper business showcased its highest-ever EBITDA of ₹2,616 crore in FY 2023-24, a 16% increase over the previous year. The India Aluminium Upstream business concluded the year with industry-best EBITDA margins of 32% in the fourth quarter, supported by record volumes and lower input costs. The India Aluminium Downstream business also showcased a 15% year-on-year growth in EBITDA per tonne in the fourth quarter, backed by higher volumes.

Our overseas subsidiary, Novelis, demonstrated an improved EBITDA per tonne driven by lower operating costs, favourable metal benefits and market recovery. Consolidated Net Profit rose to ₹10,155 crore in FY 2023-24, bolstered by robust sales and lower input costs across businesses.

Despite prepaying long-term debts of ₹4,495 crore and redeeming debentures of ₹700 crore in India, our liquidity position remains robust, with a consolidated treasury balance of ₹22,965 crore. Consequently, our gross debt has reduced from ₹58,337 crore to ₹54,501 crore on a consolidated basis.

> *India today is poised at an economic and industrial turning point. Your Company is proud to be a part of this inspiring ride, delivering metals and materials that enable the nation's vision of progress and prosperity for all. It's a matter of collective pride that our mantra of striving for sustainable growth has delivered strong results.*

₹10,155 crore
Consolidated Net Profit

Our net debt to EBITDA improved to 1.21x, from 1.39x last year, underscoring our strong balance sheet, and positioning us favourably for future growth.

We are in the midst of an ambitious investment cycle and are on course to execute our strategic capex of $4.9 billion for Novelis and $2 billion for Hindalco India over the next 3 to 5 years.

State-of-the-art Solutions

Your Company is committed to drive growth by fostering closer relationships with our customers while making our operations more efficient and sustainable.

In the Downstream business, we are actively developing an ecosystem that promotes sustainability across various industries, including building and construction, automotive, and packaging. Through our innovative and sustainable practices, we are transforming our own operations and empowering our partners to achieve their sustainability goals more effectively.

Our approach includes designing new aluminium alloys, co-creating, and developing components for new applications, and establishing fabrication facilities for key growth sectors for higher value-addition. This is how we bring cutting-edge technologies to India, ensuring that we remain at the forefront of industry advancements and contribute to a more sustainable future for all.

In the Copper business, push on renewables, acceleration in urbanisation and infrastructure creation, and digitalisation continue to drive demand. Our team did well to cater to this growth with reliable and efficient operations and scaled up the business volumes 15% year-on-year, crossing 500 KT of sales for the first time.

Our investments in creating new downstream products needed in India (such as inner grooved tubes for air conditioning and refrigeration) and speciality copper alloys for high-speed railways and metros have progressed well and will be commissioned in FY 2024-25. We have also started work on India's first copper and e-waste recycling facility.

With this growth, we also positioned ourselves as one of the world's leading copper rod players.

Our Specialty Alumina business had set-out aggressive plans for enhancing its value-added portfolio as well as its global presence. In line with its targets, the business achieved a 58% increase in volumes of new high-end VAPs like Sub-micron Alumina and High Crystalline Alumina. Swimming against the tide of sluggish export markets, the business delivered a 30% increase in volumes on a year-on-year basis. The domestic market remained strong in FY 2023-24 and is expected to stay firm in FY 2024-25 as well. With new projects, innovative products, and expanded footprint through global presence and new country offices, the Specialty Alumina business is poised for transformative growth.

Our subsidiary Novelis has made notable progress in all its product segments. We have a strategic greenfield rolling and recycling project at Bay Minette with an estimated production capacity of 600 KT to be commissioned close to the end of CY 2026.

Your Company's growth and progress is founded on a steadfast commitment to achieving sustainable and value accretive growth.

Delivering on Our Commitment

Hindalco is leading the adoption of clean energy solutions in primary smelting. We will be one of the first in the aluminium industry globally to use 100 MW of round-the-clock (RTC) solar and wind power with storage.

This marks a significant milestone for an industry that depends on reliable and continuous power. Our project was recognised with the Energy Transition Changemaker award at COP28, spotlighting the role of innovative, scalable solutions in driving the green energy transition. We aim to further augment our RTC capacity, and by 2030, at least 30% of our energy capacity will be renewable based. Any new smelter expansions will be substantially driven by renewable power.

We are advancing our automotive circularity platforms and closed-loop recycling solutions. Novelis has invested $365 million to set up a cutting-edge recycling centre for automotive in North America. With an annual casting capacity of 240 KT of sheet ingot, we expect the facility to reduce our carbon emissions by more than 1 million tonnes each year. The new recycling facility is adjacent to Novelis' existing automotive finishing plant in Guthrie, Kentucky. The centre will have the capability to process aluminium from vehicles at the end of their lifecycle. Using recycled aluminium as input material requires only 5% of the energy used to make primary aluminium.

In FY 2023-24, Novelis utilised ~2.3 million tonnes of recycled aluminium including 82 billion used aluminium beverage cans as input material in its production process.

Catalyst for Positive Change

On our path to becoming net water positive by 2050, we have undertaken various desalination and tertiary water recycling projects. Overall, we have recycled and reused 25% of the total water consumed, and there is a drop in specific freshwater consumption for the Aluminium business by 8.46% from FY 2018-19.

We are efficiently managing waste generated from our operations. 85% of the waste generated was reused and recycled. Five of our plants are certified 'zero waste to landfill', while 15 of our plants and 1 mine are certified 'single-use-plastic-free-zones'. Along with our dedicated measures to optimise water usage and minimise waste generation, we have completed an all-season study under the biodiversity management plan at 12 mines and 9 of our plants. Novelis has conducted biodiversity assessment for 19 ASI-certified plants.

As part of our afforestation efforts, we have planted over 4 lakh trees and have a cumulative green cover spanning 5,705 acres of land. We are developing green belt management plans for our non-biodiversity management plan sites.

We believe, accelerating social change is as important as mitigating climate change. We continue to address a wide range of social issues including health and safety, human rights, and community development.

We are focusing on digitalisation of safety systems and processes. We have introduced virtual reality-based safety modules to enhance internal training effectiveness at all our plants. We also carry out comprehensive safety audits. All these efforts resulted in an LTIFR of 0.22, which is 5% lower than the previous year.

> *This year has special significance for us. Launched 25 years ago, the Birla Copper brand has emerged as a world-leading producer of copper rods. We proudly completed 75 years of our Muri refinery, which was India's first alumina refinery commissioned in 1948.*

We have also been recognised as one of India's top 10 Best Workplaces in Health and Wellness in 2024 by the Great Place to Work® Institute for creating a psychologically and emotionally healthy work culture that fuels high performance.

Creating Value for All

Your Company is engaged in building sustainable livelihood opportunities, driven by its commitment to human-centric sustainable development. We are facilitating training and guidance necessary to create independent livelihood avenues through skill development, technical training, and market access.

The Kosa silk rejuvenation project in Chhattisgarh, that was launched to revive the traditional tribal craft of Kosa silk and generate livelihood for artisans, is evolving into a thriving enterprise. The project, under the Kosala brand, has seen an uptick in artisan engagement with a significant increase in weavers' income levels.

In FY 2023-24, your Company invested over ₹154 crore in community development projects globally impacting more than 2.5 million lives.

A Matter of Pride

This year has special significance for us. Launched 25 years ago, the Birla Copper brand has emerged as a world-leading producer of copper rods. We proudly completed 75 years of our Muri refinery, which was India's first alumina refinery commissioned in 1948.

While we celebrate our achievements as the world's largest producer of flat-rolled products, we also celebrate being the world's largest recycler of aluminium and the first to create a comprehensive charter for sustainable mining. Our future-facing initiatives led us to be among top 1% in the aluminium industry in the S&P Global Sustainability Yearbook 2024 for the third time in a row. As the metals flagship of the Aditya Birla Group, we will continue to carry out our mandate to be a force for good.

Satish Pai

Managing Director

Market, People, and Digital

Our operating environment is defined by geopolitical uncertainties and evolving stakeholder expectations. In this scenario, we leverage our strengths in manufacturing to deliver innovative and sustainable products and solutions.

At Hindalco, we have an agile and strategic approach to navigate the dynamic and complex market landscape. We leverage opportunities from emerging global megatrends and evolve our business to deliver long-term value for all stakeholders. To support India's vision of becoming an economic powerhouse, we have moved forward to position ourselves as an integrated solutions provider across our businesses.

Our quest for product excellence stems from a mission to serve varied customer needs while responsibly supporting India in its journey towards self-sufficiency. Such efforts revolve around developing value-additions that tap into the inherent superior qualities of aluminium and copper. As the demand for aluminium and copper continues to grow, we are expanding our product portfolio, advancing from a manufacturing company to a solutions provider with greater focus on value-added products. This transformation involves the creation of a wide range of solutions for various industries, including packaging, automotive, end-consumer products, and components, building and construction, freight rakes, and aerospace.

Aligning our Business Offerings to global Megatrends

Commissioned in 2022, Silvassa is the country's first fully automated extrusions plant

India is a fast-growing economy with rising consumption. In aluminium, current per capita consumption stands at 3.1 kg against the global average of 12.2 kg. Similarly, the per capita consumption of copper is 0.7 kg in India, while the global average is 3.9 kg. In China, per capita consumption is 34.9 kg for aluminium and 11.8 kg for copper. This provides significant headroom for growth and an increased demand for our products and solutions across all segments.

With rapid urbanisation, India's cities and towns are projected to become home to over 600 million people by 2036, compared to 416 million in 2018[1]. This is expected to drive demand for infrastructure development and consumer spending. Being a leading provider of downstream products in aluminium, copper, and specialty alumina, we are well-positioned to capitalise on this opportunity. This, along with the evolving economic landscape, is driving the need for lightweighting solutions, premiumisation and localisation. To meet this need, we are embracing technological innovations to develop newer products and solutions which will aid India's journey of becoming a developed economy.

To accelerate action against climate change, India aims to increase its non-fossil fuel capacity to 500 GW by 2030, with a focus on energy from solar Photovoltaic (PV) systems. This transition towards renewable energy will have a multi-fold impact on our business. Since the manufacturing of solar module requires 21 kg per MW of aluminium[2] and 5.5 kg per MW of copper[3], we expect a significant increase in aluminium and copper consumption. In addition, the paradigm shift of automotive industry towards electrification and decarbonisation is driving a rise in Electric Vehicles (EV). While the standard Internal Combustion Engine (ICE) requires 23 kg/vehicle of copper, EVs have nearly 3-4 times higher usage of copper[4].

At Hindalco, we aspire to seize such opportunities to support in the transition towards building a greener and resilient economy.

As a responsible business, we have integrated ESG in our business strategy which serves as the foundation for Hindalco's sustainability journey. We continuously reimagine ways to make our operations greener, stronger and smarter. Our recycling capabilities at Novelis, enable us to maximise the recycling potential of our materials, reduce waste and conserve natural resources.

Source:
[1]Cities as Engines of Growth
[2]Aluminium in Solar
[3]Copper: Essential in PV Solar Power Growth
[4]Copper: The Material of Choice for Vehicle Manufacturers

Strategic Objectives

Our 4 strategic priorities are intricately linked to our material topics, opportunities landscape, risk management, and form a crucial element of our integrated decision-making process. In line with the identified megatrends, our strategic priorities are the pillars for supporting efficient resource allocation to ensure long-term value-creation.

A Our Approach I Impact W Way Forward

SP-1

Prudent Capital Structure

A
- Financial prudence in capital allocation
- Growth capex supported by robust cashflows and strong balance sheet

I
- Consolidated net debt to EBITDA at 1.21x as of 31 March 2024

W
- Funding investment projects at $6.9 billion while meeting the target net debt to EBITDA of 2.5x at the consolidated level

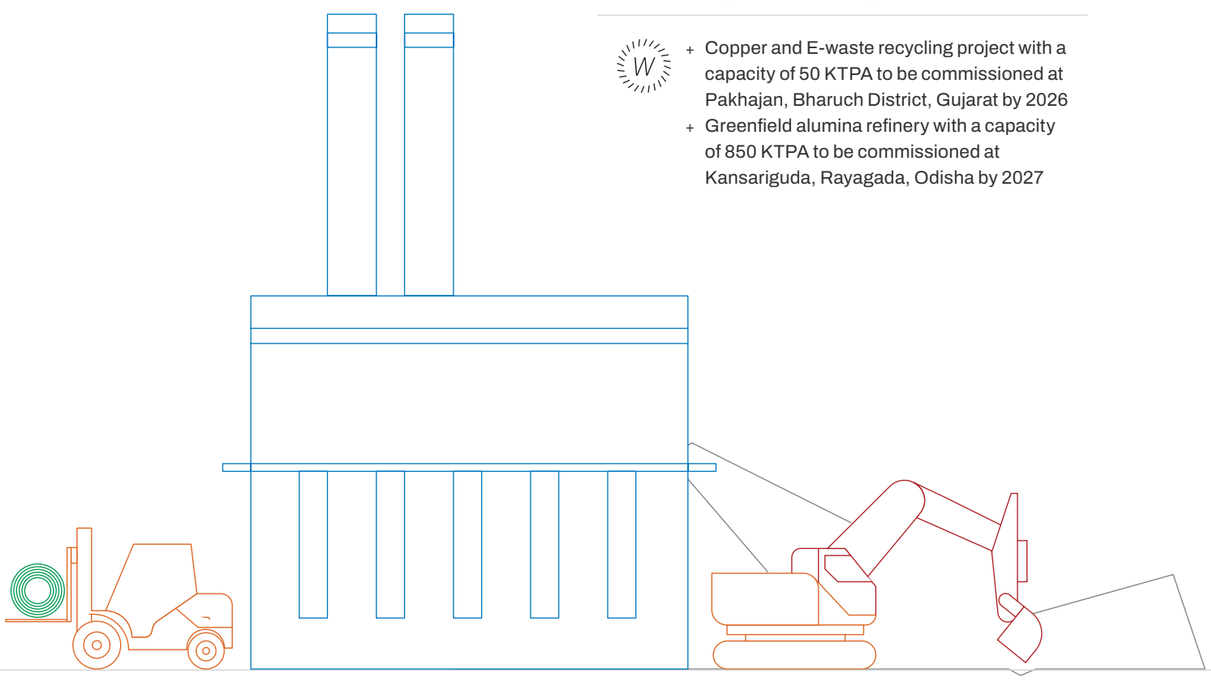
SP-2

Value-enhancing Growth

A
- Focus on shareholder value creation by organically expanding Downstream businesses
- Cost optimisation through resource securitisation

I
- Best-ever performance in Copper business
- Won the bid for Meenakshi West coal mines in FY 2023-24
- MoU with Odisha Mining Corporation Ltd. to supply bauxite for greenfield alumina refinery
- Highest ever metal-grade alumina sales

W
- Copper and E-waste recycling project with a capacity of 50 KTPA to be commissioned at Pakhajan, Bharuch District, Gujarat by 2026
- Greenfield alumina refinery with a capacity of 850 KTPA to be commissioned at Kansariguda, Rayagada, Odisha by 2027



SP-3

Strong ESG Commitment

A
- Focus on ESG implementation across the value chain
- ESG commitments to strengthen our position as the industry leader in sustainability

I
- Continue to be among the top 1% in the aluminium industry in the S&P Global Corporate Sustainability Assessment (CSA) 2023
- Enhance energy transition initiative
- Zero waste to landfill certifications for 3 plants at Hindalco; 2 at Novelis
- Taloja and Silvassa achieved Zero Liquid Discharge (ZLD) in FY 2023-24
- CII Biodiversity index and Carbon sequestration studies completed at 11 plants at the end of FY 2023-24. Total 248,494 tCO_2e sequestered to date

W
- R&D project focused on arsenic precipitation and stabilisation in glass form
- Transition towards green energy:
  - 29 MW solar and wind energy to be operational by Q2 FY 2025
  - 100 MW of renewable power for our Odisha smelter in the coming year (won Energy Transition Changemaker Award at COP28)
  - Target to reach 300 MW by FY 2026

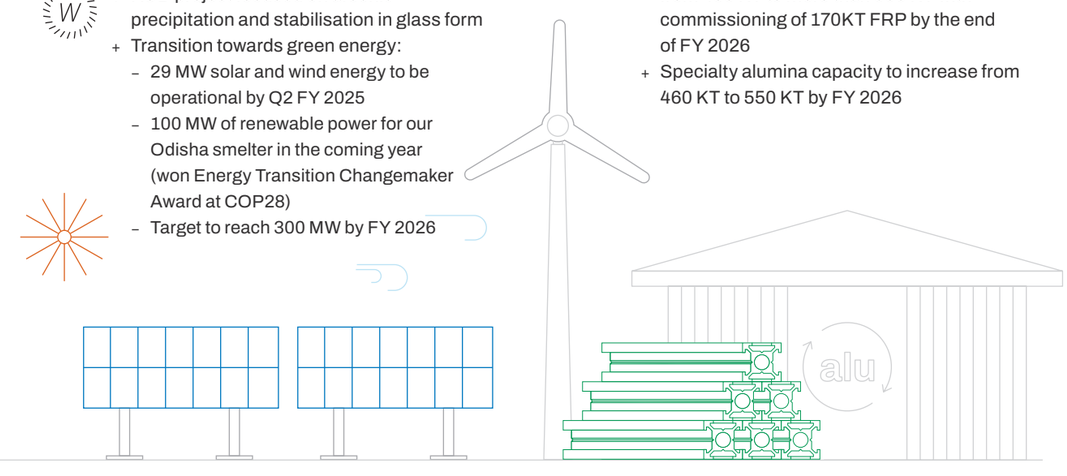
SP-4

Portfolio Enrichment

A
- Advancing from manufacturing company to a manufacturing solutions provider
- Enriching product mix by increasing the share of high-end value-added products

I
- Commissioned state-of-the-art extrusion facility at Silvassa in FY 2023-24
- Highest-ever sales of specialty alumina
- Ongoing execution of various downstream projects such as Aditya FRP, aluminium battery foil, battery enclosures and copper Inner Grooved Tubes

W
- Novelis expansion: $4.9 billion of investments underway to expand rolling, recycling and casting capacity. The largest project is a $4.1 billion integrated greenfield rolling and recycling center in Bay Minette to commission by the second half of CY 2026.
- Downstream capacity to increase from 430 KT to more than 600 KT with commissioning of 170KT FRP by the end of FY 2026
- Specialty alumina capacity to increase from 460 KT to 550 KT by FY 2026



Anticipating Uncertainty, Securing Success

Businesses today operate in a dynamic landscape underscored by fluctuating market conditions, changing regulations, supply chain disruption, increased vulnerabilities due to climate change and technological advancements. We have adopted a proactive approach to safeguard our operations while identifying and capitalising on emerging risks and opportunities to stay at the forefront.

Our Enterprise Risk Management (ERM) policy outlines the principles to be adopted to achieve the Company's objectives by proactively and holistically addressing the entire spectrum of risks. We have established a 3-pronged approach comprising ERM framework, Crisis Management, and Business Continuity Management which work in tandem to build resilience in the organisation. The ERM policy is periodically reviewed by the Board to ensure its relevance and effectiveness.

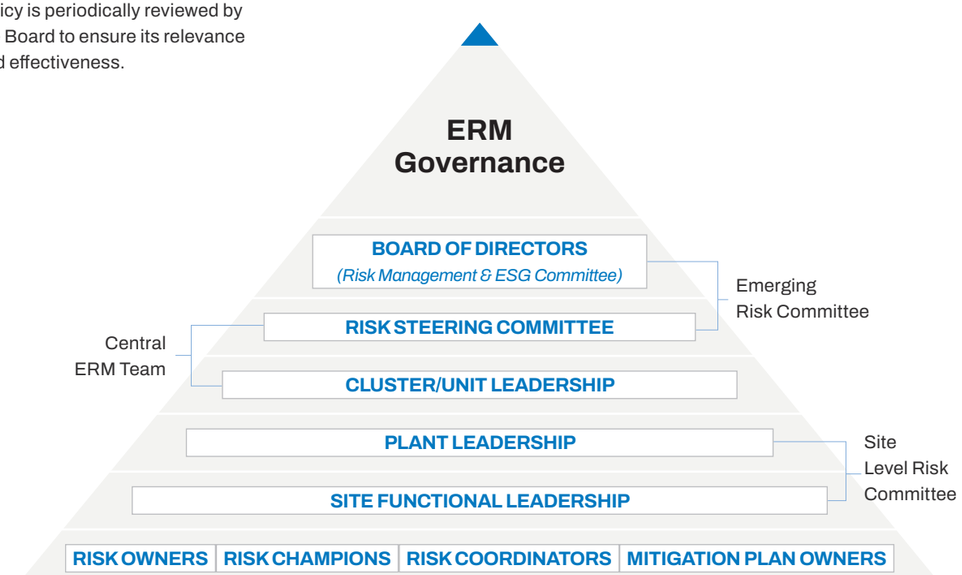
Robust Risk Governance Structure

We have an established risk governance framework that enables proactive decision-making and ensures the organisation remains resilient. At the apex level, the Risk Management and ESG Committee provides guidance and strategic direction for effective risk management, with oversight on risk exposure.

The Central Risk Management Team is responsible for cascading the risk management process to the grassroot level. Our Risk Managers operate from business locations, ensuring close engagement with the first line of defense. At the Business/ Function Level, we have an ERM Representative (representing the business head), while at the operating unit level, we have Risk Champions, and at the department level, we have Risk Coordinators. All are responsible for implementing risk management processes and continuously tracking and monitoring mitigation plans.

The central ERM team reports to the Chief Risk Officer (CRO), who communicates all details regarding the identified key risks and their corresponding action plans to the CEO and the Risk Management and ESG Committee of the Board of Directors. To ensure assurance on the risk management process, internal audits are conducted periodically.

Additionally, we have an Emerging Risk Committee dedicated to identifying and assessing new and evolving risks, ensuring the organisation stays ahead of potential threats.



Salient features of our risk management

Risk Culture Building

- Develop and deliver targeted training sessions to educate employees on risk management principles and practices, including but not limited to new joinees, risk champions and coordinators, senior leaders, and CXOs.
- Encourage open dialogue about risks across all organisational levels to promote transparency and collaboration.
- Integrate the business with a top-down approach that exemplifies a strong risk culture.

Business Continuity Management and Crisis Management

- Develop and maintain detailed Business Continuity Plans (BCPs) to ensure organisational resilience in the face of disruptions across our units.
- Establish robust crisis management protocols and a crisis response team to handle emergencies effectively.

Cross-functional Integration

- Foster collaboration between risk management and key functions like production, operations, health and safety, product development etc. to align risk practices with business objectives.
- Facilitate discussions across departments to ensure awareness of and preparedness on emerging risks and megatrends; devise strategies to address potential threats and capitalise on new opportunities.

Leveraging Risk Technology

- Adopted state-of-the-art technology enabled tool for risk management processes, inclusive of dynamic dashboard and reports.
- Proven ability to identify and manage risks throughout the entire project lifecycle, including those associated with capital expenditure (Capex) projects.
- Linkage of KRIs, KPIs and business objectives with our identified risks for better decision making and action planning.
- Systematic tracking and monitoring of loss events and near misses, identifying its root causes and implementing preventive measures across functions, wherever applicable.

Continuous Risk Training and Awareness

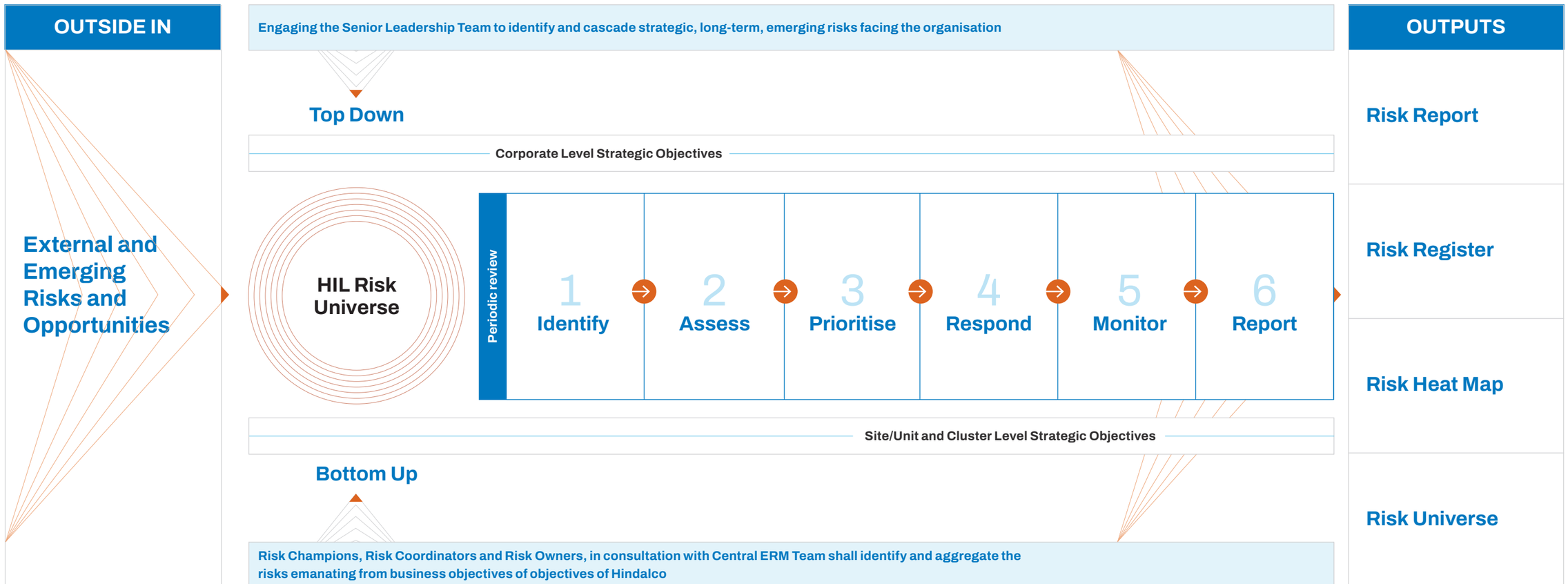
- Conduct campaigns to build risk awareness and inform employees about new risks and mitigation strategies through ERM emailers, ERM Bytes and other marketing collateral.
- Promote risk awareness through diverse channels, including seminars, workshops, and online training sessions, fostering a shared commitment to vigilance and proactive risk management.
- In FY 2023-24, 8,236 man-hours of risk management training conducted.

Risk Management Process

At Hindalco, we acknowledge that we operate in an ever-changing evolution of business landscape. This makes it necessary to investigate risks, opportunities, and their potential impacts proactively. In this regard, we have established a structured 6-step Enterprise Risk Management (ERM) Process — Identify, Assess, Prioritise, Respond, Monitor, and Report — which draws on insights from globally recognised guidelines, including COSO and ISO 31000. Our ERM follows a scalable and flexible approach, allowing it to be tailored to different levels within the organisation, such as departments, plants, mines, and corporate. Within our ERM framework, we implement a 2-pronged approach, a bottom-up complimented by top-down. The top-down approach involves active engagement with the senior leadership team, facilitating discussions on strategic, long-term, and emerging risks facing the organisation, and risk culture building. Simultaneously, bottom-up risks are aggregated at various levels based on an approved risk matrix. Key risks identified through this comprehensive process are then presented to the leadership, including Board and executive committee, on a periodic basis for continuous oversight, strategic guidance, and risk-intelligent decision making. Further, our risk appetite process is dynamic and determined by both financial and non-financial factors.

On a quarterly basis, a designated stakeholder delivers a detailed overview of key risks to the Board, showcasing the interconnections between different locations across Hindalco. This approach allows for a holistic understanding of the organisational risk landscape and facilitates informed decision-making at the Board level. Risk identification is a continuous exercise, enabling business to capture potential threats and opportunities proactively across locations. Identification of risks reflect critical factors that have the potential to impede business objectives. A 3C+2S framework – encompassing Cash, Cost, Customer, Safety & Sustainability, and Systems & Processes is utilised for comprehensive risk assessment. We further employ tools such as Root Cause Analysis and Consequence Analysis to assess the likelihood and impact of each risk.

Following the identification and assessment of risks, a prioritisation process is undertaken using a risk scoring matrix which is then plotted as a risk heat map. This heat map supports determination and classification of risks across categories i.e., Strategic, Operational, ESG, and Projects. This classification further guides implementation of appropriate mitigation plans across the risk categories. We conduct periodic stress testing on these mitigation plans to check their effectiveness. In order to proactively monitor and report potential risks, each site and function maintains a risk register. Risk exposure is reviewed every quarter at the Board level committee. Continuous risk monitoring and robust reporting mechanism enable triggering of timely actions across various levels of management. Our systematic approach propels value creation and positive impacts which augments our performance and facilitates the achievement of business objectives. Additionally, our risk management process is audited externally, to ensure a resilient ERM approach which showcases adaptability and effectiveness in navigating a range of challenges.



Risk Overview

R1 Increased focus on decarbonisation

N | M | SP-3

Significance and Impact

- Global decarbonisation efforts in various industries can lead to shifts in the demand and supply of material.
- Operation costs might be impacted by policies such as carbon pricing in the near future.

Mitigation Actions

+ Increased our renewable energy consumption to 2.12 million GJ, as compared to 0.91 million GJ in previous year.
+ Executed 173 MW of Renewable Energy projects to meet the targets.
+ Renewable hybrid energy project using pumped hydro storage to deliver 100-300 MW of round-the clock power.

R2 Supply chain risks

S | M | SP-3

Significance and Impact

- Supply chain disruptions can extensively impact our operations, strategy, and society.
- This may impact our revenue, customer base, inventory costs, etc.

Mitigation Actions

+ Risk and criticality based supplier segregation and classification to identify the significant suppliers.
+ Strengthening our supply chain strategy through a systematic supplier screening approach – detailed physical assessment for significant supplier and detailed due diligence.
+ Considering risks for negative ESG impacts related to a country's political, social, economic, environmental, or regulatory situation in the screening process for significant suppliers.
+ Transforming the supply chain via digitisation by improving the governance, productivity, and process.
+ Dedicated taskforce to identify and mitigate the internal and external supply chain risks.

R3 Cyber security and data protection risks

I | S | SP-3

Significance and Impact

- Digital tools play a crucial role in modern technology. The growing use of these tools has increased cybercrimes, posing threats such as privacy breaches, data loss, fraud, and theft. These cybersecurity risks can potentially impact businesses, operations and customer base.

Mitigation Actions

+ Developed an Information Technology Policy to guide our cybersecurity practices.
+ Our entire IT infrastructure is certified with ISO 27001 Information Security Management System, and we conduct periodic audits to strengthen the systems.
+ Our intranet portal has an Incident Reporting Form on which employees can report any actual or suspected information security breaches.
+ We are running yearlong Information security training programme (Cyber Suraksha Programme) for our employees where we educate them about cybersecurity best practices and phishing awareness.
+ We are conducting different (phishing, smishing) simulation on regular basis.

Capitals

F Financial Capital | I Intellectual Capital | H Human Capital | N Natural Capital | S Social and Relationship Capital

R4 Price volatility of commodities

(Aluminium, Copper)

F | S | SP-2 | SP-4

Significance and Impact

- Fluctuations in the price of aluminium and key commodities can have a significant impact on the profitability of our business.

Mitigation Actions

+ Deployed strategies such as hedging against price fluctuations and diversification of product portfolio.
+ Regular reviews and stress tests to optimise hedge levels.
+ We follow view-based hedging in the Aluminium business to insulate it from commodity price and currency fluctuations.
+ We follow price offset hedging in the Copper business to insulate it from commodity price and currency fluctuations.

R5 Changes in the regulatory requirements

I | S | SP-2 | SP-3

Significance and Impact

- The regulatory landscape around ESG, such as the carbon trading system, is rapidly evolving.
- EU's CBAM regulation will impact aluminium imports into the EU. Its reporting requirements started in October 2023.

Mitigation Actions

+ Engaging with government agencies and industry bodies to adapt to the evolving regulatory environment.
+ Developing low-carbon products and implementing decarbonisation plans across all our sites.
+ Aligning our reporting in line with the EU's CBAM requirements.

R6 Stakeholders' focus on ESG

I | F | S | N | H | SP-2 | SP-3

Significance and Impact

- The pandemic and the dynamic regulatory changes have heightened shareholders' attention to environmental and social responsibility.
- Shareholders are also mindful of an organisation's impact on the community and people not directly involved or related.

Mitigation Actions

+ Fostering new opportunities and implement best practices on ESG such as reducing emissions, responsible management of wastes and resource conservation. Ensuring fair labour practices and contribution to communities.
+ Strengthening Corporate Governance and risk management.
+ Enhancing ESG reporting and transparency.
+ Have integrated sustainability parameters into our Annual Incentive payout scheme.

Strategic Priorities

SP-1 Prudent Capital Structure | SP-2 Value-enhancing Growth | SP-3 Strong ESG Commitment | SP-4 Portfolio Enrichment

R7 Solid waste management

N | SP-3

Significance and Impact

- Waste management rules are constantly evolving, and the availability of land is becoming a challenge for waste storage.
- Therefore, waste management in operations is essential for environmental protection and societal safety.

Mitigation Actions

+ Dedicated Waste Management Task Force (WaMTF) to streamline the waste management process in each unit.
+ Alignment of our waste management strategy with UN SDG 12 and follows the 5R+1S approach (Reduce, Recycle, Redesign, Recover, Rehabilitate and Store) to achieve our goal of Zero Waste to Landfill by 2050.
+ To create value from waste, we have adopted in-house processes. In addition, we have partnered with cement manufacturing companies to utilise our by-products. We are also collaborating with research institutes and think tanks to explore the effective utilisation of waste.

R8 Increased import of aluminium

F | S | SP-2 | SP-4

Significance and Impact

- Our market share might be affected by the increasing import of aluminium and scrap.

Mitigation Actions

+ Organically expanding our downstream facilities to enhance the product mix and meet customer demands.
+ Building a can recycling facility with a tolling partner to utilise secondary aluminium.

R9 Depletion of natural resources

N | SP-2 | SP-3

Significance and Impact

- With the increasing consumption of natural resources, the cost of materials also rises.
- Furthermore, it is creating water and mineral shortages and disturbing the ecosystem in which we operate.

Mitigation Actions

+ Adopting water saving technologies and practices in operations to reduce water consumption.
+ Increasing our recycling capabilities and recycled 18.91 million m^3 of wastewater during the reporting year.
+ Embedding circularity into every aspect of our business, encompassing mining, aluminium production and scrap recycling to reduce reliance on natural resources.

R10 Product development strategy risks

I | S | SP-2 | SP-4

Significance and Impact

- We risk losing opportunities and market share if we focus on producing similar products.

Mitigation Actions

+ Strong focus on diversification of product portfolio to include application solutions. For instance, current development activities for busbar application solutions.
+ Continued development efforts on new product areas, that may evolve into new product verticals in future, such as coated battery electrodes, high strength and additive manufactured aluminium alloys.
+ Extensive collaborations with research institutes and industry bodies to keep up to date on new developments and opportunities for new products relevant to Hindalco.
+ Development of coated aluminium products to have unique advantage on product portfolio as well as competitiveness. This includes AC Fin, Coated SRC etc.

Identifying Emerging Risks

The global climate crisis, mounting economic knock-on effects and the acceleration of environmental degradation are further contributing to the risk landscape. With the aim of future-proofing our Company's operations, we identify emerging risks which could pose threats to the business.

Since these new or unforeseen risks can impact us in the future, we carry out a thorough review of these emerging risks as part of our ongoing risk management procedures to ensure business continuity.

A view of our Renukoot refinery. Technology such as suspension calciner and slurry pumps (Geho) which were tried and tested a long time back, are now present in every refinery

1. Higher exposure to extreme weather events

Significance

- Abrupt and irreversible changes to earth systems will lead to more extreme weather events.
- With our supplier base spanning across geographies, it poses a significant challenge to supply chain and its operations.
- Extreme weather events can impact business operations and lead to involuntary migrations, causing production delays and increased cost of resources.

Mitigation Actions

+ Presence of plant-specific business continuity management plans comprising disaster management plan.
+ Integration of climate risk management in our Enterprise Risk Management programme.
+ Carried out site-wise detailed climate risk assessment, subsequently devised mitigation strategies for the identified risks.

2. Critical change to earth's ecosystem

Significance

- Potentially irreversible and self-prolonging changes to critical planetary systems have unforeseen and severe impacts to planetary health and human welfare.
- With the rise in sea level and changing weather patterns, there is an increased risk of infrastructure damage and supply chain disruptions.

Mitigation Actions

+ Conducted biodiversity impact assessment study for 41 operating sites and developed biodiversity management plans for 21 sites.
+ Carried out TNFD assessment to act upon nature related dependencies. This comprises alternate innovative sourcing initiatives and investments in ecosystem restoration.
+ Conduct scenario analysis to assess potential risks across the supply chain.
+ Integrated resource efficiency and recycling related initiatives for effective waste management.
+ Conducted water risk assessment for all our plants in India. Adopting technologies to attain water circularity and zero liquid discharge at our plants.

Capitalising on Opportunities

Against the global backdrop of climate change, supply chain disruptions, and resource scarcity; the use of aluminium and copper products can drive decarbonisation and propel a circular economy. Infinitely recyclable aluminium and copper are key to developing lightweight and durable products. Hence, these metals present business opportunities across diverse sectors such as automotive and transport, building and construction, electricals and electronics, and packaging. We have advanced from being a pure metals manufacturing company to one offering metals solutions to leverage these opportunities.

Our Copper plant at Dahej, Gujarat, has a custom copper smelter and captive jetty

1. Rising demand for aluminium and copper products

Significance

- By 2033, aluminium demand is expected to double in India from 4.5 million MT[5] to 9 million MT, and copper consumption is set to increase from 1 million MT to 2 million MT.
- The increase in demand will open potential opportunities in diverse sectors such as automotive and transport, urban infrastructure, pharma, renewables, air conditioning, among others.
- Increase in demand from OEM manufacturers for lightweight materials and electric mobility space.

Resource Allocation

+ Focusing on technological innovations to develop newer products and solutions.
+ Enhancing our downstream capacity for extrusions, FRP, battery enclosures and foils, and coated AC fins to cater to the market.
+ Capital allocation for expansion and downstream product development.
+ Manufacturing of superior copper alloy rods for railways.
+ Under the Product Linked Incentive scheme, we are developing a copper Inner Grooved Tube and coated AC fins plants.

2. Development of low-carbon products

Significance

- With rising carbon prices and increasing commitments to decarbonisation, the industry will have a growing appetite for low carbon products.
- Low-carbon products will be a differentiator compared to other products.
- Investments in renewable energy, inert anodes, hydrogen, and biofuels will be significant.

Resource Allocation

+ Expanding our renewable energy portfolio and investing in research and development for net zero solutions and low-carbon products.
+ Novelis' portfolio includes products manufactured from recycled aluminium.
+ Developing a first-of-its-kind recycling facility for copper and e-waste in Dahej, Gujarat.

3. Recycling and circular economy

Significance

- Aluminium and copper, with their high recycling properties, may prove to be building blocks for the circular economy.
- With the projected increase in consumption, the volume of post-consumer aluminium and copper is also set to rise.
- Using recycled metals will help meet consumer demands while reducing the consumption of virgin metals.

Resource Allocation

+ Developing a can recycling facility where a tolling partner will provide the hot metal.
+ Implementing a state-of-the-art recycling facility for copper and e-waste.
+ Collaborating with cement manufacturers to use fly ash and bauxite residue.
+ Use of bauxite residue in roadmaking.

4. Emerging applications for specialty alumina

Significance

- Due to evolving industry requirements, there is an increased demand for developing high-end sophisticated products in existing markets, such as refractories, ceramics and flame retardants, and emerging markets like Li-ion batteries and semiconductors.

Resource Allocation

+ Expanding our value-added product capacity and portfolio with projects up to 150 KT underway.

[5] India: Aluminium sector surging in India, but hampered by labour shortages: Hindalco exec - The Economic Times (indiatimes.com)

Making Stakeholders a Partner in Progress

Our operations align with the interests of multiple stakeholders, and we have continuous dialogue to gauge their concerns and expectations. These expectations are reported to the Risk Management & ESG Committee and CSR Committee as well as to the Board every quarter. Our stakeholder insights are instrumental in creating a strategy that aligns with our sustainability vision and regulatory requirements.

Our stakeholder engagement processes are guided by the principles delineated in the Aditya Birla Group's Stakeholder Engagement Policy. As per the policy, we ensure effective and transparent stakeholder communication by:

1 **Identifying and prioritising stakeholders**

2 **Engaging with stakeholders**

3 **Understanding expectations and developing action plans to address their concerns, if any**

Frequency of engagement ● *Continuous* ◔ *Quarterly* ✳ *Periodically* △ *As per requirement*

Significance of the relationship	Engagement modes and channels	Stakeholder expectations	Our approach
Employees ● *Our employees play an important role in our journey towards significant transformation and soaring at new heights. Employees serve as an important part of our Human Capital contributing to all other capitals.*	+ Hi-intranet and knowledge portals + Coverage of Shillim events + Leadership townhalls + Unit level journals + Employee satisfaction surveys + Feedback mechanism + Employee engagement programmes + Grievance redressal mechanism + Website + Social Media	+ Fair wages and equal opportunities + Training and skill development with career growth + Rewards and recognition + Employee well-being + Occupational health and safety + Transparent communication + Medical facilities and operational continuity	+ 57.77% of the employees are covered under the provision of collective bargaining at Hindalco + Ensuring compliance in terms of payment of wages + Providing technical and behavioural training + E-learning events and development programmes by Hindalco Technical University (HTU) and Gyanodaya + Awareness programmes on health and wellness + Occupational health and safety training + Minimum notice period regarding any significant operational change
Customers ● *Customers, as drivers of our revenues, also provide valuable inputs for improving products and solutions, service excellence, and operational efficiency.*	+ Emails and meetings + Customer satisfaction surveys + Periodical site visits + Grievance redressal mechanism	+ Post-sales support + Sustainable product offerings and solutions + Innovative solutions.	+ Key account management + Net Promoter Score (NPS) model combining a top-down and bottom-up approach + Enhanced product portfolio with customer-centric solution
Suppliers / Vendors ● *Suppliers and vendors provide us with raw materials, associated process materials, equipment and services required in our operations.*	+ Emails and meetings + Vendor assessments and review + Supplier audits + Training workshops and seminars + Stakeholder engagement surveys	+ Continuity of orders + Capacity building + Embedding ESG principles across supply chain	+ Sustainable procurement policy + Supplier Code of Conduct + ESG assessment of suppliers + Contractor safety management system
Government and Regulatory Bodies △ *Adherence to applicable laws, regulations and policies.*	+ Annual Reports + Communication with regulatory authorities + Formal dialogues + Policy advocacy	+ Compliance with laws and regulations	+ Implementation of compliance tracking framework + Ensuring compliance with applicable laws and regulations
Local Communities ● *Engagement with community enhances our reputation and reinforces our commitment to maintaining a social license to operate.*	+ Stakeholder engagement surveys + Community need assessment exercise + Meetings directly or through NGO partners + Community development initiatives + Grievance redressal mechanism	+ Community Infrastructure development + Local employment + Community development programmes + Livelihood opportunities	+ Development of community infrastructure in villages + Identifying affected communities + Implementing a stakeholder engagement plan + Focus on livelihood and skill development programmes + Conducting social awareness camps + Ensuring responsible mining practices + Focus on societal reforms + Conducting socio-economic baseline assessments and impact assessment studies
Investor and Shareholders ◔ *Provides financial resources to compound business growth*	+ Board meetings + Annual reports + Newsletters + Quarterly briefings + Investor meets / roadshows	+ Sustainable growth and returns + Market share + ESG commitment and disclosure + Operational and financial performance + Risk management + Corporate governance + Ethics and integrity	+ Regular operational and business performance updates + Focus on cost optimisation and value-added products + Enterprise risk management framework + Corporate governance framework
Industry Associations △ *Industry associations help in knowledge sharing of leading practices and supporting policy advocacy efforts.*	+ Meetings and seminars	+ Compliance with industry standards + Business collaborations + Knowledge sharing	+ Participation in meetings, conferences and discussions related to industry + Sharing of leading industry practices + Policy advocacy efforts
Media ✳ *Media helps in projecting our vision and strategy to various stakeholders*	+ Digital platforms such as website and social media + Press releases + Interviews	+ Transparent communication	+ Regular communication of progress through press releases and interviews

Insights for Impact

Materiality assessment is the basis for developing a holistic sustainability strategy as it evaluates the actual and potential impact of our business on environment, economy and people, including human rights.

We review our materiality assessment every year to ensure our sustainability efforts are aligned with the strategic priorities, current trends, and risks and opportunities. We undertake detailed assessment with inputs from stakeholders every 2 years.

In FY 2022-23, we conducted a materiality assessment supported by our stakeholders and guided by the GRI Standards 2021. To gauge the holistic impacts of our material topics, we aligned them with the principles of double materiality that takes into consideration both impact and financial materiality.

Components of Double Materiality

Impact Materiality

+ Highlights impacts of an organisation's activities or business relationships on internal and external stakeholder groups

Financial Materiality

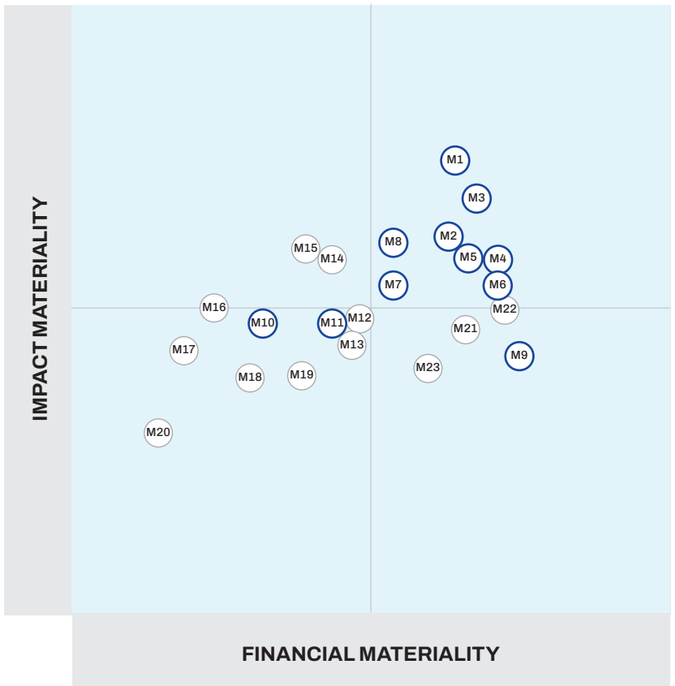
+ Highlights effects of identified impacts on the financials of an organisation based on associated risk and opportunities

Information regarding the methodology and result of the assessment is available in our Integrated Report of FY 2022-23.

Materiality Matrix

After analysing the impact and financial materiality, we developed a matrix which highlights the 11 high priority material topics. The materiality matrix has been evaluated and duly signed off by our Board.

Our ESG Key Performance Indicators (KPIs) are mapped to respective material topics and aligned with UN SDGs, strategic priorities, and risks. These topics are integrated into our ERM framework, which is also aligned with the Global Risks Report of World Economic Forum (WEF), Intergovernmental Panel on Climate Change (IPCC) requirements and World Business Council on Sustainable Development (WBCSD). The topics are reviewed annually to ensure alignment to our business strategy.



List of Material Topics

M1 Energy and GHG Emissions Management
M2. Waste and Hazardous Materials Management
M3. Water Management
M4. Market Presence
M5. Economic Performance
M6. Compliance Management
M7. Community Relations
M8. Air Emissions
M9. Occupational Health and Safety
M10. Biodiversity
M11. Supply Chain Transformation
M12. Material Management
M13. Product Stewardship
M14. R&D Innovation and Technology
M15. Digitalisation and Cybersecurity
M16. Macro-economic Fluctuations
M17. Land Use
M18. Diversity and Inclusion
M19. Communicable Disease and Public Health
M20. Artisanal and Small Scale Mining
M21. Employee Wellbeing
M22. Ethics and Integrity
M23. Security and Human Rights

Environment

Alignment with UN SDGs

M1. Energy and GHG Emissions Management

GRI Topic: *Energy Emissions* | *SDG 7, 12, 13* | ***Ref in IR:*** *Natural Capital* | ***Alignment with Strategic Priority & Risk:*** *SP-3, R1*

Associated Impacts:
- Rise in fossil-fuel use in aluminium manufacturing contributes to an increase in GHG emissions.
- Initiation of projects for transition to low-emissions fuel could help achieve a reduction in energy consumption and consequently cause lesser GHG emissions.
- Frequent changes in carbon emissions regulation by different countries could impose more restrictions on business, thus, raising the cost of compliance. Non-adherence to the same may result in reputational damage, causing an impact on our entire value chain.

Risk:
Coal is one of the primary sources of energy for Indian operations. Being a continuous process industry, with dependence on coal, it is challenging to replace coal with any alternate material in the near-term, making it cost-intensive.

Approach to Mitigation:
- Reducing the dependency on non-renewable energy sources by adding a cumulative 173 MW of renewable energy capacity (as on 31 March 2024).
- We are also evaluating the feasibility of other energy sources including increasing the use of biomass in power plants.
- We have also been working on carbon capture as well as energy storage.

KPIs: *Energy consumption (within the organisation)* | *Energy intensity* | *Reduction of energy consumption* | *Direct (Scope 1) GHG emissions* | *Energy indirect (Scope 2) GHG emissions* | *Other indirect (Scope 3) GHG emissions* | *GHG emissions intensity*

M2. Waste and Hazardous Materials Management

GRI Topic: *Effluents and Waste* | *SDG 12* | ***Ref in IR:*** *Natural Capital* | ***Alignment with Strategic Priority & Risk:*** *SP-3, R7*

Associated Impacts:
- Improper disposal of waste could impact the quality of land, water, and air. This is detrimental to the environment as well as human health in due course of time.
- Improper waste management can lead to non-compliance with environmental regulations causing hindrance in the operations.

Risk:
To protect the environment, it is essential to properly dispose waste from operations. Some of the waste is stored in a secure area, for which substantial land is required. The availability of land is becoming difficult and the storage of waste in the ponds is also subject to risks. For our operations, compliance with the evolving regulatory requirements in a specified time frame shall be a prerequisite.

Approach to Mitigation:
- We have set up a Y-o-Y target of 5% for recycling and reusing generated waste, with the aim to achieve zero waste to landfill by 2050. We have been using green-technology innovation in waste re-use and metal recycling across our India operations.
- We have taken several initiatives in partnerships to reuse bauxite residue for backfilling, road building and establishing long-term contracts with cement and road developers. These initiatives are being monitored regularly.

KPIs: *Waste generated* | *Waste diverted from disposal* | *Waste diverted to disposal*

M3. Water Management

GRI Topic: *Water* | *SDG 6, 12* | ***Ref in IR:*** *Natural Capital* | ***Alignment with Strategic Priority & Risk:*** *SP-3, R9*

Associated Impacts:
- Manufacturing processes require a large amount of water which impacts the availability and quality of water in the surrounding areas. Operating in water-stress areas may further deplete the natural resources and pose a risk of sustenance to the neighbouring communities.
- The discharge of untreated or improperly treated water with pollutants could degrade the quality of surface or groundwater and degrade the habitat of aquatic flora and fauna.

Risk:
Natural resource depletion is a risk across the world. We depend on the supply of coal, bauxite, copper concentrate, water etc. 4 of our plants are in water stress area. This can have a lasting impact on our immediate environment and operations.

Approach to Mitigation:
- Implementation of measures such as reusing and recycling of used water will aid in reducing dependency on freshwater. Thus, ensuring that the needs of the community are not compromised.
- We have planned several initiatives for water recycling and rainwater harvesting at various plants. Our aim is to achieve zero liquid discharge and water positivity across mining and downstream verticals by 2025. We also aim to achieve Zero Liquid Discharge (ZLD) status by FY 2025-26 for Aluminium business and FY 2029-30 for Copper business.

KPIs: *Water withdrawal* | *Water discharge* | *Water consumption*

M8. Air Emissions

GRI Topic: Emissions | SDG 13 | Ref in IR: Natural Capital | Alignment with Strategic Priority & Risk: SP-3, R6

Associated Impacts:
Smelting and refining activities result in the release of hazardous air pollutants (PM, NOx etc.) which have an impact on the health of the local communities and environment.

Risk:
Our non-GHG air emissions result from both fuel combustion and production processes. Our aluminium smelting process contributes to fluoride emissions while the burning of fossil fuels contributes to release of SOx, NOx and Particulate Matter.

Approach to Mitigation:
- Adoption and implementation of innovative technologies along with reduced coal consumption will facilitate reducing air emissions.
- We have installed Flue Gas Desulphurisation (FGD) units at Mahan, Aditya, and are in the process of installing FGD unit at Renusagar.

KPIs: *Nitrogen oxides (NOx), Sulphur oxides (Sox), and other significant air emissions*

M10. Biodiversity

GRI Topic: Biodiversity | SDG 13, 15 | Ref in IR: Natural Capital | Alignment with Strategic Priority & Risk: SP-3, R9

Associated Impacts:
Mining of raw materials leads to loss of biodiversity while degrading the habitat and ecosystem.

Risk:
Our operations depend on coal and bauxite mines. Further, some of our locations are situated near areas of high biodiversity. Proper management of biodiversity around our operations is critical for continued operations at our locations.

Approach to Mitigation:
We are taking up several initiatives towards conservation of biodiversity, including conducting risk assessments and developing biodiversity management plans.

KPIs: *Operational locations in areas with high biodiversity value*

Social

Alignment with UN SDGs

M9. Occupational Health and Safety

GRI Topic: Occupational Health and Safety | SDG 3,8 | Ref in IR: Human Capital | Alignment with Strategic Priority & Risk: SP-3, R5

Associated Impacts:
Since manufacturing plants and mines are at a higher risk of hazards, improper health and safety measures may negatively impact the health and safety of the workforce.

Risk:
Health and safety is of utmost importance. However, we face injuries due to safety related risks in our manufacturing processes.

Approach to Mitigation:
- Implementation of various initiatives and programmes to increase health and safety related awareness among work and reduce risk of hazards and accidents, such as 'Serious Injuries and Fatality (SIF) Prevention Programme', a unique initiative which standardises contractor safety management processes across our operations.
- We are incorporating digitalisation to reduce human intervention.

KPIs: *Work-related injuries | Work-related ill health*

M7. Community Relations

GRI Topic: Local Communities | SDG 11 | Ref in IR: Social and Relationship Capital | Alignment with Strategic Priority & Risk: SP-2, SP-3, R6

Associated Impacts:
- Consumption of natural resources like water can have an impact on the surrounding environment. Air emissions from operations have the potential to impact the health and well-being of the local communities.
- Empowering and upskilling the local communities facilitates inclusive growth and creates livelihood opportunities.

Opportunity:
To actively contribute to the social and economic development of underserved communities, lifting the burden of poverty, and helping bring in inclusive growth in sync with the UN Sustainable Development Goals.

KPIs: *Operations with local community engagement, impact assessments, and development programmes | Operations with significant actual and potential negative impacts on local communities*

Governance

Alignment with UN SDGs

M5. Economic Performance

GRI Topic: Economic Performance | SDG 17 | Ref in IR: Financial Capital | Alignment with Strategic Priority & Risk: SP-1, SP-2, R4, R8

Associated Impacts:
- Adoption of evolving regulatory requirements such as CBAM in Europe may have an impact on India's exports.
- Further, fluctuations in the price of aluminium may impact the financials of the business.

Opportunity:
We have been able to achieve our deleveraging target in a timely manner leading to a strong balance sheet. This has resulted in increased trust between the shareholders and lenders. We have a robust approach to the capital allocation framework. Further, our focus has been on maximising shareholder return by prioritising our growth capital expenditure towards value-added downstream expansion projects.

KPIs: *Direct economic value generated and distributed*

M6. Compliance Management

SDG 16 | Ref in IR: Natural Capital, Social and Relationship Capital | Alignment with Strategic Priority & Risk: SP-3, R5

Associated Impacts:
- Non-compliance with laws and regulations may impact the production process and may lead to heavy fines.
- Adherence to rules, regulations and laws minimises the regulatory risks as well as reputational damage.

Risk:
In the metals and mining industry, regulations play an important role in shaping the business. Frequent regulatory changes may lead to an uncertain environment.

Approach to Mitigation:
Our policy advocacy strategy involves continuous engagement with policymakers at all levels, both directly and through industry associations. This helps us in preparing us for any regulatory changes.

KPIs: *Environmental compliance | Socio-economic compliance*

M4. Market Presence

Ref in IR: Intellectual Capital, Manufactured Capital | Alignment with Strategic Priority & Risk: SP-1, SP-4, R1

Associated Impacts:
Addressing the needs of the ESG driven customer base enables diversification of product portfolio and venturing into new product segments which are environmentally and socially sustainable.

Opportunity:
Increased demand for aluminium in various sectors gives us an opportunity to expand our market presence.

KPIs: *Technology and Innovation | Enhanced customer experience*

M11. Supply Chain Transformation

Ref in IR: Natural Capital, Social and Relationship Capital | Alignment with Strategic Priority & Risk: SP-3, R2

Associated Impacts:
Raw materials used in metals and mining businesses often have environmental and social externalities. Absence of a coherent supply chain management programme may lead to negative effects on the environment as well as society which may lead to disruptions in the supply chain.

Opportunity:
Sustainable supply chain initiatives, effective use of natural resources, decarbonisation, ethical sourcing, and fair trade will enable risk reduction, increased innovation, and even stronger returns on investment.

KPIs: *Digitalisation of supply chain*

Risks

R1 Increased focus on decarbonisation
R2 Supply chain risks
R3 Cyber security and data protection risks
R4 Price volatility of commodities (Aluminium, Copper)
R5 Changes in the regulatory requirements
R6 Stakeholders' focus on ESG
R7 Solid waste management
R8 Increased import of aluminium
R9 Depletion of natural resources
R10 Product development strategy risks

Strategic Priorities

SP-1 Prudent Capital Structure
SP-2 Value-enhancing Growth
SP-3 Strong ESG Commitment
SP-4 Portfolio Enrichment

Financial Implications

Negative | Positive

Shared Prosperity

At Hindalco, we actively engage with trade associations and industry bodies to advocate and support initiatives that bring about well-balanced growth and prosperity for businesses as well as society. Our advocacy efforts are driven with the intent of maximising value for our stakeholders and preserving the environment. Through our participation, we contribute to policies ranging from taxation, commerce and trade, mining, power, sustainability and climate change. Furthermore, our associations make us future-ready for any regulatory changes. Our policy advocacy efforts are described under Policy Advocacy section of Social and Relationship Capital.

Details of our associations and memberships are provided here:

Note: Your organisation is the sole and absolute owner of the concerned Brand and Hindalco Industries Limited does not claim any right in or to the same. Use of the said Brand by Hindalco is for the limited purpose of denoting our professional association with you.

** Novelis Europe is the member company*

Global

- International Aluminium Institute (IAI)
- International Copper Association (ICA)
- The Aluminium Association, USA
- European Aluminium Association*

National

- Confederation of Indian Industry (CII)
- Federation of Indian Chambers of Commerce & Industry (FICCI)
- Aluminium Association of India (AAI)
- Automotive Research Association of India (ARAI)
- Federation of Indian Export Organisations (FIEO)
- Federation of Indian Mineral Industries (FIMI)
- Indian Primary Copper Producers Association (IPCPA)
- Indian Electrical and Electronics Manufacturers' Association (IEEMA)
- Resource Efficiency Circular Economy Industry Coalition (RECEIC)
- Winding Wire Manufacturers' Association of India (WWMAI)

State Level

- Mahratta Chamber of Commerce, Industries & Agriculture (MCCIA)

FINANCIAL CAPITAL

Investing in Value-enhancing Growth

A view of the shopfloor in our Silvassa plant. Aluminium consumption is expected to double to approximately 10 million tonnes over the next decade, and Hindalco is channelling significant capex to capitalise on this opportunity

Consolidated Financial Highlights during FY 2023-24

₹25,728 crore
EBITDA

₹10,155 crore
PAT

₹24,056 crore
Operating Cash Flow

1.21x
Net Debt / EBITDA

11.37%
ROCE

Capital Linkages

- Manufactured Capital
- Human Capital
- Intellectual Capital
- Natural Capital
- Social and Relationship Capital

Strategic Priorities

- SP-1 Prudent Capital Structure
- SP-2 Value-enhancing Growth

Material Topics

- M5 Economic Performance

Key Risks and Opportunities

- R4 Price Volatility of Commodities (Aluminium, Copper)
- R6 Increased Import of Aluminium
- R8 Stakeholders' Focus on ESG

SDG Linkages

8 DECENT WORK AND ECONOMIC GROWTH

At Hindalco, we believe that financial capital serves as the foundation for organisational growth, enabling us to unlock new avenues through expansions in upstream and downstream verticals. Our commitment to organic growth, supported by cost optimisation, underpins our efforts to build a strong balance sheet and creates long-term value for all our stakeholders. Central to our strategy is optimal capital allocation which is guided by prudence and strategic foresight. By consistently optimising our financial capital, we enhance our ability to navigate through challenges and capitalise on opportunities to drive long-term value.

At Hindalco we are continuously forging ahead on multiple fronts, positioning ourselves as a one of the frontrunners in all our businesses. With a focused vision on growth and innovation, the Company is channelling significant capex towards various initiatives in line with our long-term strategy of enhancing our exports from India. These efforts will not only fuel our next phase of growth but will also enhance our position across all our businesses globally.

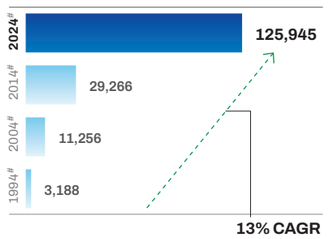
Focus Areas

- Δ Prudent Capital Structure
- Δ Capacity Expansion to Cater to Elevated Demand
- Δ Cost Optimisation
- Δ Portfolio Enrichment

Shareholder Value Creation

At the core of our corporate strategy lies a steadfast belief to maximise shareholder returns. This is vividly illustrated by the remarkable rise in our market capitalisation to ₹125,945 crore on 31 March 2024 from ₹3,188 crore on 31 March 1994 (implying a CAGR of 13% over 30 years). We cherish the trust and support of our shareholders, who have invested their capital and reposed their faith in our growth narrative.

MARKET CAPITALISATION
(₹ crore)



₹151,260 crore as on 24 May 2024*

** Market capitalisation witnessed a sharp rise on board meeting date i.e. 24 May 2024*

 # as of 31 March 2024

Consolidated Financial Performance Highlights

In FY 2023-24, our consolidated revenue experienced a slight decrease of 3%, amounting to ₹215,962 crore, primarily on account of lower average aluminium prices. Our EBITDA rose by 2% to reach ₹25,728 crore, driven by improved performance across all our businesses.

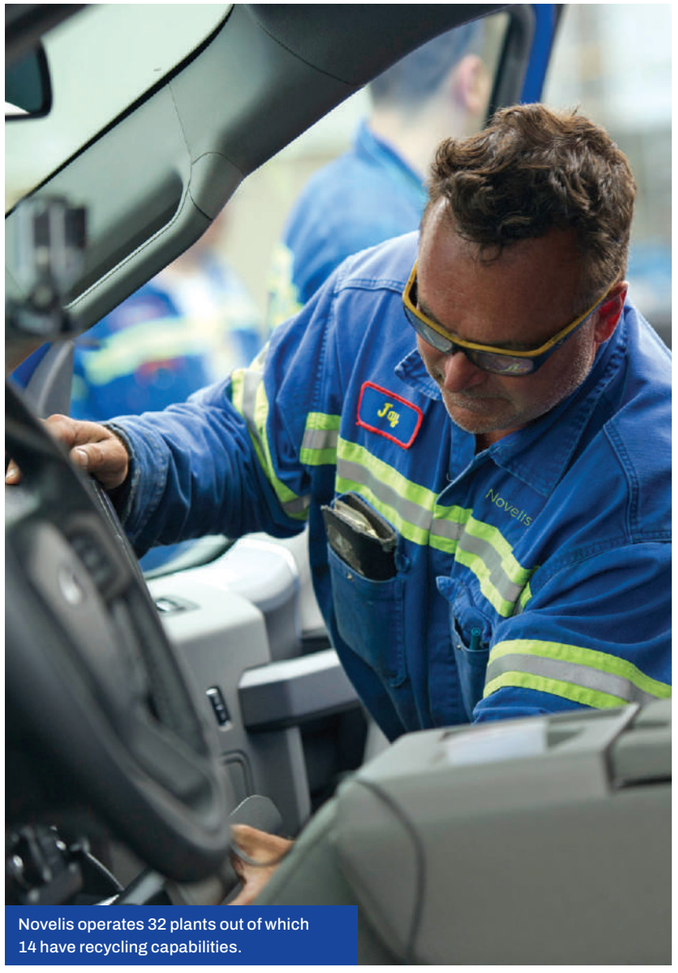
Our resilient business in India, driven by a strong balance sheet continues to underpin our financial stability and organic growth strategy. We remain dedicated to bolstering resource security, particularly in coal and bauxite, thereby reducing our reliance on external sources in the upcoming years.

Aligned with our value-driven approach, we foresee organic growth opportunities amounting to $6.9 billion, to be executed over the next 3-5 years across Hindalco and Novelis.

A view of our Chakan plant in Pune - Maharashtra. As part of Hindalco's Downstream Strategy we are developing solutions for the Electric Vehicles segment

Novelis Financial Performance Highlights

At Novelis, our Net Sales decreased to $16.2 billion in FY 2023-24, a 12% decline over last year due to lower average aluminium prices. There was a 3% decrease in total Flat Rolled Products (FRP) shipments due to lower beverage packaging shipments driven by customer inventory reductions in the first half of the financial year as well as softer demand for specialties products in a weaker macro-economic environment, partially offset by higher automotive shipments on strong demand. Adjusted EBITDA increased 3% to $1.9 billion in FY 2023-24, compared to $1.8 billion last year, driven by higher product pricing, including some cost pass-throughs to customers, lower energy and freight costs, and favourable foreign exchange. These factors were partially offset by lower metal benefit, higher employment costs, an inventory timing effect from capitalising high operating costs in the prior year, and lower volume. Adjusted Free Cash Flow was an outflow of $75 million in FY 2023-24 compared to a prior year period inflow of $431 million, primarily due to a 73% year-over-year increase in capital expenditures, partially offset by higher cash flow from operating activities.



Novelis operates 32 plants out of which 14 have recycling capabilities.

Economic Value Creation *(in ₹ crore)*

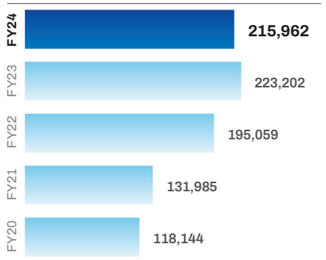
Parameter	FY 2022-23	FY 2023-24
Revenue from Operations	223,202	**215,962**
Other Income	1,257	**1,496**
Economic Value Generated	**224,459**	**217,458**
Operating Costs	158,116	**148,331**
Employee Wages and Benefits*	13,063	**14,778**
Payment to providers of capital	4,428	**4,397**
Payments to government	2,856	**3,005**
Community Investments	136	**138**
Depreciation, impairment and other expense*	36,415	**36,492**
Economic Value Distributed	**215,014**	**207,141**
Economic Value Retained#	**9,445**	**10,317**

** There is reclassification of ₹105 crore between investing activity and financing activity for FY 2022-23*
 # Economic value retained = Direct economic value generated – Economic value distributed

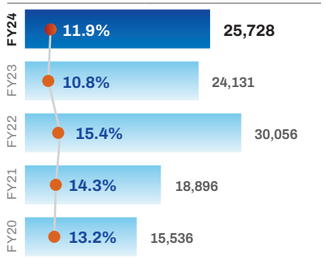
Financial Performance

Key Financial Highlights
(Consolidated)

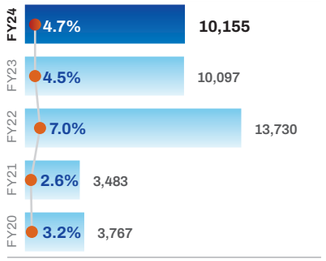
REVENUE
(₹ crore)



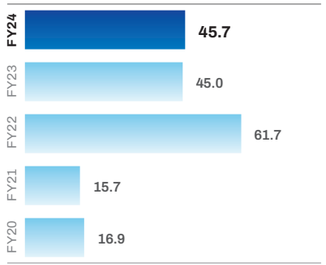
EBITDA *(₹ crore)* **EBITDA MARGIN** *(%)*



PAT *(₹ crore)* **PAT MARGIN** *(%)*

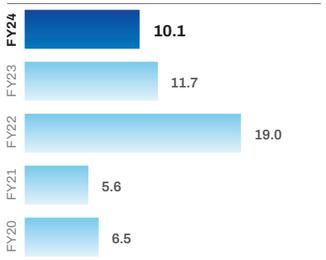


EPS
(₹)

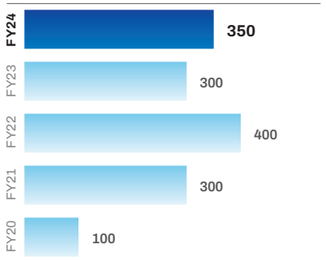


Key Return Ratios

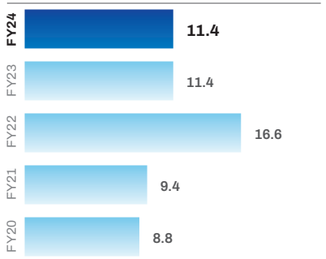
ROE
(%)



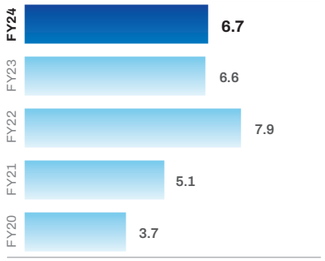
DIVIDEND PAYOUT
(%)



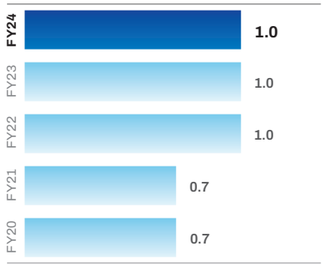
ROCE
(%)



NET INTEREST COVER
(in times)



ASSET TURNOVER
(in times)



Credit Ratings

Given our strong operating performance, driven by healthy demand for our products, controlled input cost, and effective financial management, CRISIL Ratings Limited, India's premier rating agency, has reaffirmed its rating of

CRISIL A1+
for our **₹2,000 crore** Commercial Paper.

Similarly, CARE has reaffirmed rating of:

CARE AA+ (Stable)
for **₹9,304 crore** long-term bank facilities

CARE A1+ (Stable)
for **₹31,166 crore** long-term/ short-term bank facilities

CARE AA+(Stable)
for **₹700 crore** non-convertible debentures

Our automated robotics plant in Chakan

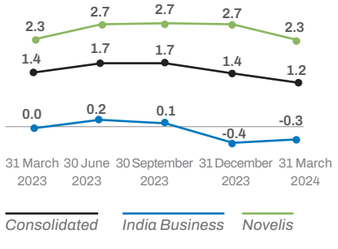
Prudent Capital Structure

Hindalco remains steadfast in optimising its capital structure, consistently reducing debt while strategically planning for future growth and expansion. As we embark on our next phase of growth, we aim to maintain a robust balance sheet with minimal leverage.

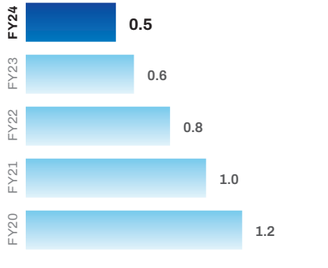
Our consolidated net debt stands at ₹31,536 crore and during the year we have repaid long-term debt of ₹5,195 crore and will continue our efforts to maintain minimum debt level in the years ahead. Reflecting our growth aspiration, at our Indian operations we stand at a net cash position of ₹3,439 crore and our strategic capex in India will be funded with the cash flow generated from the business, aligned with our capital allocation policy. For Novelis, the net debt stands at ₹35,937 crore on 31 March 2024.

Our commitment to achieving an optimal capital structure is evident in our current debt-to-equity ratio, which stands at a healthy 0.5x, and our Net Debt-to-EBITDA ratio, which is comfortably below 2 times at 1.21x as of 31 March 2024. These metrics reflect our strengthened position and prudent financial management.

NET DEBT/EDITDA
(x)



DEBT EQUITY
(in times)



Capacity Expansion to Cater to Elevated Demand

Indian Business:

Driven by our commitment to reduce environmental impact and promote sustainable growth, Hindalco has implemented certain impactful initiatives. We are setting up an e-waste and copper scrap recycling plant near Bharuch district in Gujarat with a total investment of ₹2,400 crore. It will be the first facility in India to refine e-waste in an environment-friendly manner and produce high purity precious metals and refined copper. Targeted outputs from the project will be copper cathode and precious metal i.e., gold and silver, PGM residues (platinum and palladium), lead/tin alloy, zinc and nickel compounds. We have acquired 187 acres of land for the project. Construction work at site will begin after receiving statutory approvals and we target to commence operations by early CY 2026.

Novelis operates the world's largest aluminum recycling centre in Nachterstedt, Germany

Novelis:

As the largest rolling company worldwide, Novelis holds a responsibility in shaping the aluminium industry landscape. In North America, where demand consistently exceeds supply, the region heavily relies on imports of can body sheets primarily sourced from Asia.

In response to this pressing challenge, Novelis has announced a capex of $4.1 billion for the establishment of the Bay Minette facility. This initiative aims to augment Flat Rolled Products (FRP) capacity by 600 KT, poised to substantially enhance North America's ability to produce beverage cans and automotive-grade aluminium sheets domestically. This facility is likely to be commissioned in second half of CY 2026 and would take around 18-24 months to ramp up to its optimal level. We have secured long-term agreements with esteemed large customers, like Coca-Cola, Ball Corp. and Ardagh to supply aluminium sheets.

Additionally, Novelis has also announced $365 million investment to build advanced recycling centre for automotives in North America, with an annual casting capacity of 240 KT of sheet. This facility is expected to reduce the carbon emissions by more than one million tonnes annually. The new recycling facility is scheduled to commence operations in FY 2024-25.

Furthermore, the Company has also disclosed investment of $65 million towards establishment of a recycling expansion unit in Ulsan, South Korea, and investments for debottlenecking and rolling capacity release of $150 million at Logan, USA, $130 million at Oswego, USA, and $50 million at Pindamonhangaba, Brazil.

With long term contracts, coupled with portfolio optimisation efforts, expanded recycling capacities, and favourable market dynamics, these strategic capex expansion underscores Novelis' commitment to enhance its position as one of the leading players in pioneering solutions to meet the evolving market demand.

Cost Optimisation though Resource Securitisation

Raw Material Securitisation

At Hindalco, we have reduced our dependency on external sources for coal procurement to enable long-term raw material security. The Chakla coal mine stands as a beacon of this strategy. It has a capacity of around 5 million MT and is expected to be operational by FY 2025-26. Our acquisition of the Meenakshi West mine, which has a peak rated capacity of 8 million MT of coal production, has further strengthened our supply chain and shall drive cost synergies.

Hindalco has signed a Memorandum of Understanding (MoU) with Odisha Mining Corporation Limited (OMC) for long-term linkage of raw material for our upcoming 2 million MTPA alumina refinery project in Kansariguda, Rayagada district.

Portfolio Enrichment

We continue to enrich our portfolio consisting of downstream products and solutions. With an ambition to expand this business, we have further allocated around $2 billion towards domestic capex. Some of the new products under downstream are:

Aluminium Battery Foils

There is a rapid surge in demand for battery materials driven by Electric Vehicle (EVs) and Grid Storage sectors. Hindalco aims to capitalise on this opportunity by significantly augmenting its manufacturing capacity of aluminium battery foil, a key component in rechargeable batteries.

By 2030, the demand for aluminium battery foil in India is forecasted to reach 40,000 MT, primarily fueled by the exponential growth of gigafactories engaged in advanced cell manufacturing. To meet this escalating demand, we have allocated ₹800 crore to establish a new plant near Jharsuguda in Odisha. Initially, this facility will produce 25,000 MT of aluminium battery foil, crucial for both Lithium-ion and Sodium-ion cells.

Aluminium Battery Enclosure

Hindalco has set up an automated robotics plant in Chakan, Pune-Maharashtra to produce battery enclosures for the EV segment. The plant, set to be operational in Q2 FY 2024-25, will have an annual capacity of 164,000 units. It will pioneer the production of aluminium battery enclosures in India.

Additionally, joineries such as Flow Drill screw have been added, which is currently undergoing installation.

Inner Grooved Tubes

Hindalco is installing copper tube manufacturing facility at GIDC Waghodia (Vadodara) with an estimated investment of ~₹586 crore.

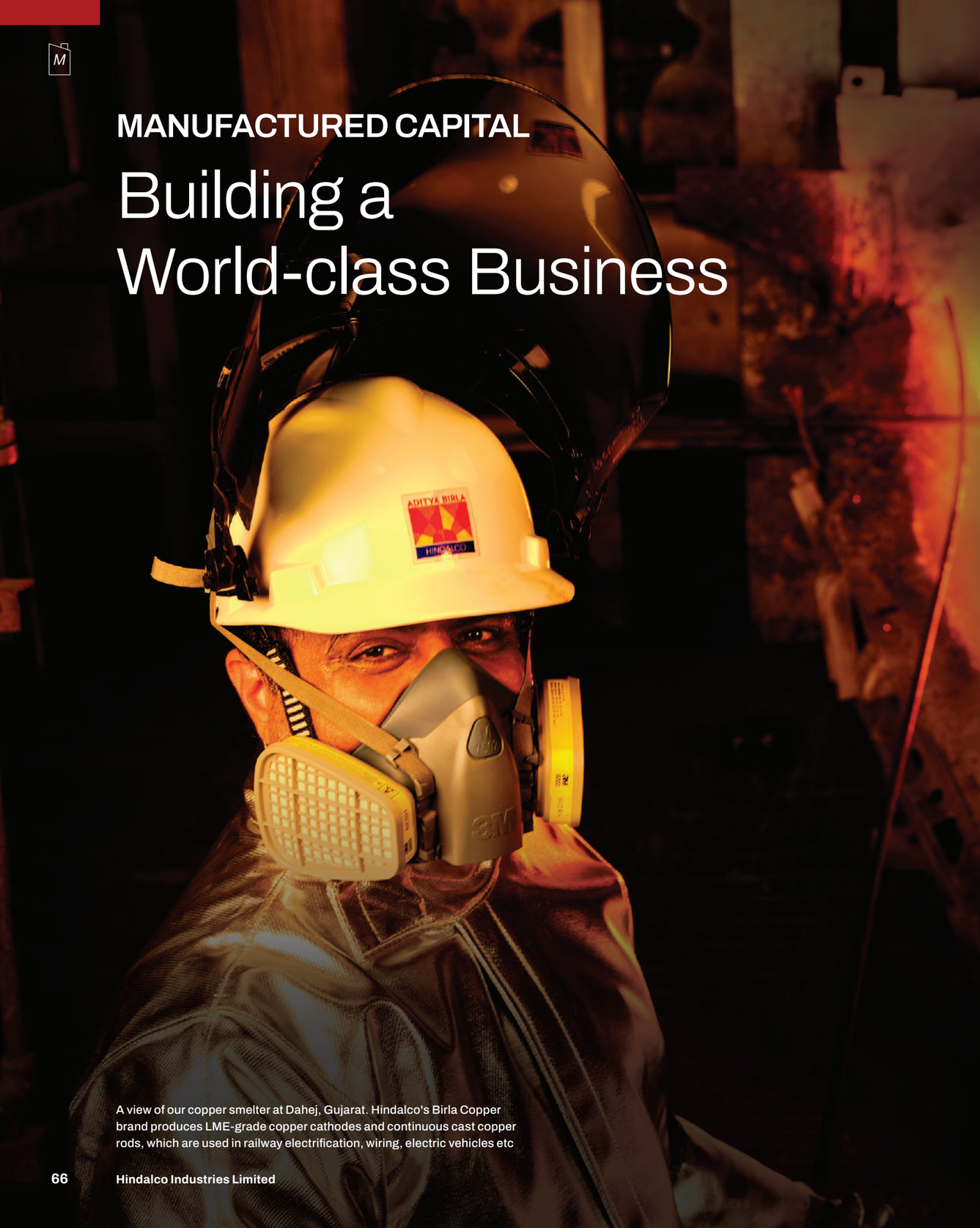
The plant will be able to produce ~25,000 MT of copper tube per annum.

The project is in line with Government of India's (GoI) vision of "Atmanirbhar Bharat" and is already accepted under GoI's Production Linked Initiative (PLI) scheme of white goods and its components. This will be the first plant in India to produce copper tubes (mainly inner grooved) which will cater to Air Conditioning & Refrigeration (ACR) Industries.
The technology selected for manufacturing copper tubes is one of the cleanest and has minimal environmental impact. We have already received the Environmental Clearance for installing the facility and construction work is underway. We expect the facility to get commissioned by end of CY 2024.

Hindalco is collaborating with customers to co-create critical components for the auto sector

MANUFACTURED CAPITAL

Building a World-class Business



A view of our copper smelter at Dahej, Gujarat. Hindalco's Birla Copper brand produces LME-grade copper cathodes and continuous cast copper rods, which are used in railway electrification, wiring, electric vehicles etc

Key Highlights during FY 2023-24

20 Manufacturing Plants*

23 Mines*

32 Novelis Plants

1.33 million MT
Primary aluminium metal production
(Highest ever)

3.66 million MT
Alumina production *(Highest ever)*

488 KT
Copper Cast Rods production**
19% Y-o-Y

Sustained Manufacturing Excellence

75 years
Muri Refinery

25 years
Hindalco's Copper Business

** Inclusive of Pune Battery Enclosure Plant, Maharashtra and Bhiwadi Copper Alloy Plant, Rajasthan. Battery Enclosure plant in Pune, Maharashtra, completed construction in FY 2023-24 and Copper Alloy plant is being relocated from Bhiwadi, Rajasthan to Vadodara, Gujarat.*

*** Inclusive of contract manufacturing*

Capital Linkages

- F Financial Capital
- N Natural Capital
- I Intellectual Capital
- H Human Capital
- S Social and Relationship Capital

Strategic Priorities

- SP-2 Value Enhancing Growth
- SP-3 Strong ESG Commitment
- SP-4 Portfolio Enrichment

Material Topics

- M4 Market Presence

Key Risks and Opportunities

- R2 Supply Chain Risks
- R4 Price Volatility of Commodities (Aluminium, Copper)
- R5 Changes in Regulatory Requirements
- R8 Increased Import of Aluminium

SDG Linkages

8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Our commitment to build a Greener, Stronger, Smarter future has propelled our transition from a metals manufacturer to a provider of sustainable solutions– a force for good. On the strength of our values, the quality and durability of products and resilience to headwinds, we continue to be a dynamic and responsible business. Our ambition to become a world-class manufacturing solutions leader drives us to continuously strive to diversify our product portfolio.

We firmly believe in contributing to a green and sustainable future – the building blocks of which are aluminium, copper, and specialty alumina. Our longstanding commitment – to environmental stewardship, is proof of our concerted efforts to aid India's Net Zero journey.

Our green pledge is further showcased through our products, which lend themselves to an array of applications and sectors including electric vehicles, energy-efficient buildings, and modern electrical grids – all of which are key to lowering GHG emissions. Our product portfolio continues to enrich the lives of our customers through enhanced performance, greater convenience, and superior experience.

Focus Areas

- **Downstream Expansions in Aluminium, Copper and Specialty Alumina**
- **Driving Operational Excellence**
- **Process Digitalisation**
- **ESG Integration Across the Value Chain**

The Silvassa plant will serve the fast growing Building and Construction and Auto markets

Production Overview

Production Capacities

3.74 million MT
Alumina*

1.34 million MT
Primary Aluminium

0.46 million MT
Specialty Alumina

0.43 million MT
Aluminium VAP

0.42 million MT
Copper Cathodes

0.54 million MT
Copper Rods

4.20 million MT
Novelis Rolling Capacity

** including 0.46 million MT of Specialty Alumina at Belagavi and Muri*

There was a robust domestic demand for aluminium and copper across sectors – an 11.2% Y-o-Y increase in aluminium, and a 9.7% Y-o-Y increase in copper. This steep demand arose due to the increased use of aluminium and copper in the electrical, automotive, building and construction sectors. This demand has led to an expansion of our product portfolio and fuelled business growth.

We are one of the largest primary aluminium manufacturers in the world. Our Aluminium business has an integrated value chain comprising mining, refining and smelting to producing primary metal, and value-added products. Our finished products include alumina, aluminium ingots, billets, and wire rods, as well as value-added offerings, such as aluminium flat rolled products, extrusions, and foils. We also utilise metallurgical alumina for our captive needs.

Hindalco's Copper business, in Dahej, Gujarat, has one of the largest custom copper smelting complexes in the world. We conduct smelting and refining operations at the plant and our product range includes copper cathodes, Continuous Cast Copper Rods (CCR) in various sizes and alloys, and precious metals such as gold and silver. We have plans in place to enhance our capabilities to manufacture value-added copper products and are also building the first copper e-waste and scrap recycling plant in India.

Alumina's remarkable mechanical properties, thermal stability, strength, and chemical inertness make it the material of choice mainly in 3 major applications: refractory, ceramics, and polishing. Also, alumina's insulating properties make it ideal for electrical insulators, circuit boards, batteries, and other electronic applications. Aluminium hydrate, an effective flame retardant, finds use in the wire and cable industry. These applications have led towards double-digit growth in India in the domestic market. Our 2 specialty alumina manufacturing units in Belagavi and Muri have enabled us to serve customers across 42 countries globally.

Novelis, which has a rolling capacity of 4.2 million MT is the world's largest roller and recycler of aluminium. It operates 32 plants in 9 countries and 14 of these plants have recycling capabilities. Novelis uses about 63% of recycled material inputs by recycling post-consumer aluminium, including used beverage cans, and post-industrial aluminium, such as class scrap.

PRODUCTION OF KEY PRODUCTS ACROSS ALUMINIUM AND COPPER AT HINDALCO FROM FY 2020-21 TO FY 2023-24 *('000 MT)*

Segment	Parameter	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Aluminium Upstream	Total Alumina	2,699	3,235	3,525	**3,665**
	Primary	1,229	1,294	1,322	**1,331**
Aluminium Downstream	Flat Rolled Products	233	301	287	**295**
	Foils*	19	28	29	**26**
	Extrusions	37	50	64**	**72**
Copper	Copper Cathodes	262	359	407	**368**
	Copper Cast Rods	235	277#	409#	**488#**
Novelis	Flat-Rolled Products *(Shipments)*	3,613	3,858	3,790	**3,673**

** Part of Flat Rolled Products*
*** Numbers of FY 2022-23 has been restated for comparative analysis*
 # Inclusive of contract manufacturing

75 Years of Muri Refinery

Muri Works is India's first alumina refinery commissioned in 1948 by the erstwhile Indian Aluminium Company (INDAL). In 2005, we acquired INDAL, and Muri became a part of our operations with an initial installed capacity of 4 KTPA. Over its illustrious 75-year journey, the refinery has undergone various stages of expansion and debottlenecking, and grown to a capacity of 450 KTPA.

In a span of just 3 years, the share of sale to specialty alumina market (water treatment chemicals, ceramics, and refractories) from our Muri plant has increased from 10% to 50%.

Storage of bauxite residue storage is a longstanding problem in the global alumina industry. We addressed this century-old challenge by developing bauxite residue as a raw material for cement manufacturing. We shipped off 100% of bauxite residue generated at Muri to cement companies across the country. This initiative has helped us to promote a circular economy.

Despite the difficulties it faced and the inherent cost involved along with geopolitical challenges, Muri has not just survived, it has thrived, thanks to the never-say-die attitude of our employees.

Muri shall continue to grow, and a plan to re-layout the plant is in place. Several projects such as spin flash dryer, ball mills, white fused alumina, and tabular alumina are a part of this plan.

Even after 75 years, the Muri refinery continues to grow at a robust pace

25 Years Journey of Hindalco's Copper Business

Over the past 25 years, our Copper business has been at the forefront of transforming India's copper landscape. Since its inception in 1996, our Copper business has relentlessly pursued innovation and growth, driven by strong commitment to quality, customer satisfaction, and sustainability.

Our journey began with the inauguration of India's first custom copper smelter in Gujarat, which not only addressed the country's growing demand for copper but also reduced dependence on imports. This bold move was a testament to our goal of making India self-sufficient in copper production.

In 1998, we took a major step towards sustainability by launching a Precious Metal Recovery (PMR) unit. This enabled us to maximise the utilisation of copper concentrate and its by-products.

In the following decade we continued to grow and innovate, introducing Copper 3 in 2005, a state-of-the-art smelter, that expanded our capacity to meet the nation's growing needs. Our commitment to quality and customer satisfaction was further underscored by the inauguration of CCR3 in 2018, a continuous cast rod mill, that catered to the growing downstream industry.

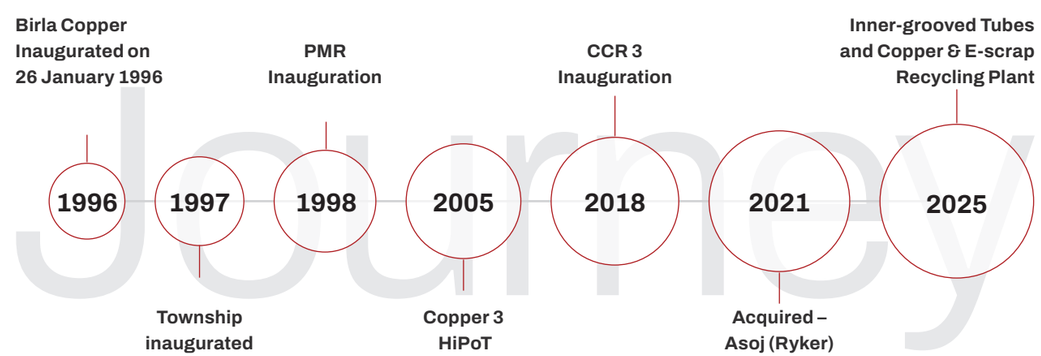
The Birla Copper brand is one of the largest producer of copper rods

Our acquisition of Asoj unit (earlier Ryker Base Private Limited) in 2021 further bolstered our downstream portfolio, underlining our commitment to being a comprehensive provider of solutions for our customers.

Throughout our journey, we have remained steadfast in our commitment to innovation, quality, and sustainability. Our employees have been instrumental in driving this vision forward through their dedication to practices such as Kaizen, quality enhancement, innovation, safety, and environmental sustainability.

Today, our products are helping in the electrification of many households. As we look ahead, we are excited to embark on new projects that will further enhance our position as one of the leading players in the copper industry. Our forthcoming projects, including the Inner Grooved Tubes (IGT) plant, Vadodara, and the copper and e-scrap recycling facility in Pakhajan, both in Gujarat, show our commitment to not only meeting but exceeding the evolving needs of the industry and our focus on sustainability.

Our Copper business has a solid commitment to excellence, sustainability, and customer satisfaction. As we look to the future, our focus lies on developing downstream products that align with the increasing demand, particularly in the Electric Vehicle (EV) and renewable energy sectors. Through these efforts, we strive to play a pivotal role in advancing the nation's growth in these crucial industries.



Downstream Expansions in Aluminium, Specialty Alumina and Copper

Utkal Alumina is one of the lowest-cost, best quality alumina producers in the world

Expanding our Reach and Impact

As per the International Monetary Fund's (IMF) 2024 projection, global GDP is projected to grow at 3.2% in 2024 and 2025, mirroring its 2023 pace. Global disinflation is also projected to continue, with inflation forecast to moderate from 6.8% (2023) to 5.9% (2024) and further to 4.5% (2025). This shall help improve momentum in the manufacturing sector, reduce supplier delivery times and lead to enhanced global trade – which bodes well for our growth outlook. Given the growth in demand of aluminium and copper, we aim to double our production capacity by FY 2026-27.

Over the next decade, the demand for aluminium in India is projected to double to ~10 million MT supported by strong demand in packaging, automotive and transport, building and construction, and industrial machinery. Across our upstream locations, we currently have an alumina capacity (raw material for primary aluminium) of 3.6 million MT and have strategically planned brownfield expansions at various sites to meet this demand. At Utkal, we successfully commissioned a debottlenecking project and is currently under stabilisation. The project has successfully elevated the refinery's current capacity from 2.2 million MTPA to 2.6 million MTPA. We are also undertaking a greenfield expansion project to set up a 850 KT capacity refinery at Kansariguda, Rayagada, Odisha. This project is expected to be commissioned by FY 2026-27.

We aim to ramp up low-carbon aluminium production to at least 30% of total output within 3-4 years. To support this objective, we launched an energy transition initiative where we completed a pilot of 100 MW of round-the-clock carbon-free power for our Odisha smelter. If successful, the pilot shall be replicated in our other smelters.

In the coming decade, the global demand for copper is expected to double driven by electric vehicles, electricals and electronics, clean energy, infrastructure as well as increasing focus on decarbonisation and environmental concerns. To meet these needs, our Asoj unit (previously Ryker Base Private Limited) has a capacity to produce 225,000 MT copper rods.

Utkal Debottlenecking Project

Utkal completed the Suryaprabha project in FY 2021-22 and was operating at 2.12 MTPA production since October' 2021.

In FY 2022-23, we planned and executed a debottlenecking (equipment addition/modification) to enhance the capacity further by 0.35 million TPA to reach 2.47 million TPA. During the reporting period, we further added major equipment in the white area of the refinery to complete the third train equivalent to other 2 trains along with some key auxiliary and utilities. Successfully commissioned in October 2023, this project increased the refinery's capacity to approximately 2.6 MTPA.

Expansions at Novelis

The expansions at Novelis with a capex of $4.9 billion are on track. The expansions include an automotive-focused recycling and sheet ingot casting centre expected to be commissioned in the Q1 of FY 2024-25 at Guthrie, Kentucky, USA. At UAL (South Korea), we have planned a 100 KT casting and recycling expansion which is expected to reduce our carbon footprint by 0.42 million tCO_2 annually.

We have also planned a state-of-the art, greenfield rolling and recycling plant in Bay Minette (US). This investment at Bay Minette provides us a first mover advantage, with a highly efficient facility that is being built as a long-term investment. Once established, this capacity can be doubled in a cost and time-efficient manner, as experienced in various other brownfield projects.

The new plant, expected to be completed in FY 2026-27, will be the first fully integrated aluminium manufacturing plant built in the USA in nearly 40 years.

The plant will have an initial capacity of 600 KT of finished goods primarily for the North American beverage packaging and automotive markets. We have already secured long-term contracts for all of the beverage packaging capacity with customers including Ball Corporation, Coke, and Ardagh, at the new plant.

To meet growing market demand, we are investing in a series of high-return debottlenecking projects at Logan and Oswego (USA), and Pinda (Brazil).

The 1st phase at Pinda to increase capacity from 680 KT to 720 KT was completed in FY 2023-24; the 2nd phase to increase to 750 KT capacity will be completed in FY 2025-26.

Novelis' Expansion Projects on Track

$130 million
Rolling debottlenecking and automotive upgrades in Oswego, USA

$365 million
Automotive recycling centre in Guthrie, USA

$4.1 billion
Greenfield rolling and recycling facility in Bay Minette, USA

$65 million
Recycling expansion in UAL, South Korea

$50 million
Rolling bottlenecking at Pinda, Brazil

$150 million
Rolling debottlenecking at Logan, USA

Novelis has R&D Centers in the USA, Switzerland, and South Korea

Expanding our Specialty Alumina Capabilities

At the Specialty Alumina business, our expansions go beyond mere operational growth; it also involves the integration of modern technologies to enhance processes and product quality. Muri operations have been expanded to support our vision of increasing specialty alumina to 50% of the total alumina production. The plant now produces multiple specialty grades serving water treatment, refractory, and ceramics markets within India and East Asia.

We are in process of commissioning a precipitate (PPT) hydrate plant with a capacity of 20 KT and aim to start production in FY 2024-25. The precipitates and hydrates due to be produced by this plant are fine particles of about 1 to 2 microns in size, and have applications in various sectors.

These particles are essential for meeting the new safety standards for halogen-free wires in flame retardants. They are also used in producing paints.

Our portfolio enrichment includes development of:

- White fused alumina and tabular alumina for applications in refractories and abrasives
- High precision sub-micron alumina with excellent insulation properties
- High purity 3N/4N alumina and high crystalline alumina for advanced applications in industrial ceramics
- Activated alumina used as an adsorbent/catalyst in petrochemical and refinery industries
- For White Fused Alumina, a greenfield project has been approved and is planned to be commissioned by FY 2026-27

To focus on customer centricity and enhance our relationships with stakeholders, we are expanding our presence worldwide. We aim to widen our reach by setting up warehouses, processing offices, and sales offices in the USA, Europe, and Southeast Asia regions.

Hindalco's Belagavi refinery is India's first alumina refinery to earn a certification from Aluminium Stewardship Initiative (ASI)

Our primary goal is to expand our product portfolio by focusing on value-added products. As there are limited manufacturers of these products in India, we are heavily dependent on imports. Our goal is to make India self-reliant in these product categories while also increasing their export.

To cater to market demands, we are expanding our in-house capabilities for halogen-free fire retardants and high-end ceramic products. Our products have garnered much attention across various industries, such as semiconductors and Li-ion battery separators for electric vehicle batteries.

Hindalco's Transition into High Purity Primary Aluminium

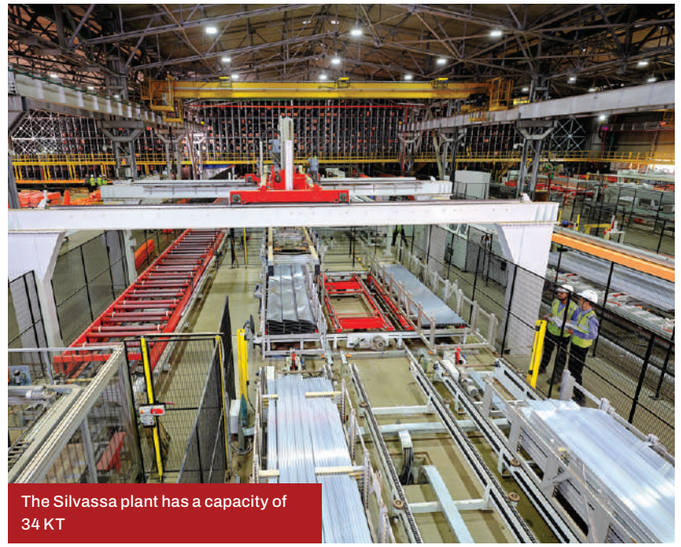
While Hindalco produces primary metal with purity up to P0201 grade or 99.98% aluminium purity, in aerospace and defence sector, we found that our customers have a need for high purity aluminium tailored to their requirements. This requirement goes beyond supply of standard grades of P0404, P0303 and P0202. At Hindalco, we recognised this need and leveraged our expertise in metallurgical chemistry to develop multiple tailor-made SKUs/ specifications of high-purity aluminium that added value to our high purity end-users.

Expanding our Downstream Capabilities

In India, demand for battery grade aluminium foil is expected to grow to 40 KT by 2030 driven by growth in advanced cell manufacturing. To meet the demand, we have started manufacturing fine quality battery foils at our Mouda plant in Maharashtra. The plant is in the process of qualifying with Li-ion cell manufacturers in India, Europe, and the USA. We are also investing ~₹800 crore to build a battery foil plant at Aditya that will initially produce 25 KT of battery foil, which is a key component of Li-ion and Sodium-ion cells.

We are also setting up an automated robotics facility in Chakan, Pune, Maharashtra to produce battery enclosures for the EV segment and will also manufacture other automotive components such as crash management system. The plant brings the latest in machining, robotics and welding technology to support the Indian EV segment. This plant, with an annual capacity of 164,000 units will pioneer the production of all-aluminium battery enclosures in India. The plant is set to be operational by Q2 of FY 2024-25. Additionally, joineries such as Flow Drill screw have been added, which is currently undergoing installation. We continue to also service the EV market from our other plants such as battery enclosures for swappable batteries from our Kuppam plant. Furthermore, our coated aluminium AC fin project in Taloja, Maharashtra, is on track.

The state-of-the-art extrusion facility at Silvassa was successfully commissioned with a capacity of 34 KT, adding to our overall downstream capacity. This will serve the fast-growing B&C and auto markets in western and southern India. Further, we have also commissioned a state-of-the-art Vertical Powder Coating facility, a first of its kind in India.



The Silvassa plant has a capacity of 34 KT

We are investing ₹3,763 crore to set up an FRP casting and cold rolling plant at Aditya and Hirakud location with a capacity of 170 KT. This will have the latest technology to continue serving the fast-growing Indian flat rolled products market, catering to both domestic and export markets and serving customers across B&C, automotive, packaging and industrial segments.

With the technical support from Phoenix International S.p.A., Europe and MJ Building Materials Trading DMCC, Middle East, we started manufacturing dies in Silvassa. This die manufacturing facility has the capacity to produce 500 dies per month and is also equipped with latest manufacturing techniques which ensure short lead times.

In collaboration with Research Design and Standards Organisation of the Ministry of Railways, Government of India, we are working to design railway wagons, bottom discharge wagons for coal and covered wagons for cement. We also signed an MoU with UltraTech Cement Ltd. for cement wagons. Further, an MoU is signed with Texmaco Rail & Engineering Ltd. to work on lightweighting across the railway industry. We continue to ensure our contribution in the Vande Bharat train project of the Indian Railways.

We have sought out new avenues within the copper market such as inner grooved copper tubes for Air Conditioning And Refrigeration (ACR) applications. Our Inner Grooved Copper Tubes project, due to be commissioned in FY 2024-25, shall give Hindalco's Copper business an entry into high growth ACR industry.

We are setting up an e-waste and copper scrap recycling plant near Bharuch district in Gujarat with a total investment of ~₹2,400 crore. This will be the first of its kind facility in India to produce high purity precious metals and refined copper by refining e-waste. The plant shall produce copper cathode (~50 KTPA), precious metal (~10 TPA) i.e., gold and silver, PGM residues (platinum and palladium), lead/tin alloy, zinc compounds and nickel compounds. Recently, we have finalised the technology and acquired 187 acres of land for the forthcoming project, and we target to commence operations by FY 2025-26.

Framing the Future: Eternia

Eternia, our new-age façade and fenestration brand, provides customised solutions embodying both advanced design and unique alloys. Set up in January 2020, Eternia has pan-India presence with 75+ channel partnerships with relators across all major cities and captures a market share that's growing with good brand salience. This serves the direct consumer market and allows us to establish closer relationships with our consumers while enhancing our branding across aluminium downstream products. Eternia also happens to be India's first WiWA© tested and certified windows made with a patented Duranium® alloy.

WiWA© Scoring: Inspired by the rating systems used in air conditioning, we introduced the WiWA© (Wind, Water and Air) certification and scoring system in collaboration with IIT-Delhi. All Eternia windows are WiWA© tested & certified with a focus on protecting home windows from strong winds, water, and air leakage.

Duranium® Alloy: An exclusive aluminium alloy, jointly developed for Eternia by our in-house R&D team and Aditya Birla Science and Technology Company, offers better dent-resistance and large sizes with superior finish and slim designs, which can sustain higher wind loads.

A combination of Duranium®, along with WiWA©, makes Eternia windows a distinctive value proposition for B2B and B2C end consumers in quality and performance.

At ₹40,000 crore, the market opportunity is tremendous, especially given the uptick in real estate purchases post-COVID, which means more consumers are looking to renovate/set up homes. The reporting year has also been a year of opportunity and revelation for Eternia with the launch of 2 new segments – Eternia Façade catering to large commercial and residential buildings, and Totalis – a tested, certified and affordable window system product catering to a more diverse clientele.

Eternia windows are made of a special aluminium alloy which offers better dent-resistance, large sizes with superior finish and slim designs, which can sustain higher wind loads

Totalis: Towards Total Market Coverage

With a promise to offer durable products for the mass market, our Eternia business has launched another homegrown brands – Totalis. This product has been crafted from eternally recyclable aluminium and undergo rigorous testing against wind load, water penetration, and air infiltration to ensure durability, reliability, and sustainability. We are committed to offering our customers a variety of customisation options including size, colour finishes, typologies, and glass thickness, all at affordable prices. This ensures that our customers have strong confidence in the quality and longevity of Totalis products.

Mashaal Initiative – Empowering our MSME Partners

Mashaal Initiative is our dedicated programme aimed at empowering our MSME partners to scale their operations effectively. We provide comprehensive support across crucial areas such as optimising plant operations, enhancing warehouse management, refining sales processes, and establishing robust organisational structures. By equipping them with cutting-edge digital tools, we're not just transforming their businesses but also bolstering the entire façade and fenestration ecosystem. With this initiative, our partners have achieved remarkable milestones, including a phenomenal fivefold revenue growth in just 3 years and the successful IPO listing of one of our MSME collaborators.

Driving Operational Excellence

Robust Integrated Management Systems

At Hindalco, we have established robust processes and systems across our locations. Our Integrated Management Systems at offices and manufacturing plants in India, cover quality, environment, and occupational health and safety. 6 of our plants have achieved ISO 50001 certification for energy management. Our extrusions plant facility at Renukoot as well as the Hindalco-Almex Aerospace Limited plants have achieved AS 9100 certifications for aerospace-grade products. The certification enables our plants to meet the stringent criteria for manufacturing automobile and aerospace-grade products.

Our Mouda plant has secured a license from the Bureau of Indian Standards (BIS) to manufacture marine-class supplies. Additionally, Alupuram, Belur, and Renukoot extrusions have obtained NABL ISO/IEC 17025 certification. Kuppam and Taloja plants have received IATF 16949 certification, demonstrating their commitment to producing high-quality automobile-grade aluminium. Alupuram, Hirakud, and Belur plants have been certified to develop products for the Navy. In addition, Alupuram, Belur, Belagavi, Mouda, Hirakud, Renukoot, Kuppam and Taloja plants have also earned certifications from the Aluminium Stewardship Initiative (ASI).

Hindalco's products meet the requirements of the Restriction of Hazardous Substance (RoHS) directive, and we regularly test our products through NABL-accredited labs to ensure compliance with the prescribed limits. At Novelis, our manufacturing plants are certified with international quality management systems, including ISO 9001 and ISO/TS 16949.

Additionally, 29 plants are ISO 14001: 2015 certified. Novelis' plants in Germany and China, which manufacture for the aerospace segment, have received accreditations in quality management, environment management, heat treating, and non-destructive testing.

Business Continuity Management

Each plant of Hindalco has its own Business Continuity Management (BCM) plan. The BCM takes into account the potential business continuity risks of respective plants.

The indicative steps for BCM planning are as follows:

1. **Understand the organisation**
2. **Business Impact Analysis**
3. **Threat Assessment**
4. **Recovery Strategy**
5. **Business Continuity Plan Implementation**
6. **Training and Awareness**
7. **Testing**

An advanced auto-probing and programming machine at the Kuppam plant. The machine, which was entirely made in India, is used to develop parts for battery enclosures. Kuppam is a one-stop shop for extruded solutions and value additions such as surface treatment and fabrication

Our extrusions plant at Renukoot has earned AS9100 certification to manufacture aerospace-grade products

Elevating Operational Excellence

We are building on our commitment to operational excellence by investing in the right capabilities, capacities, and benchmarking best practices. We are adopting modern technologies to drive efficiency, reduce costs, and develop new products. Our established initiatives, including World Class Manufacturing (WCM), Maintenance Strategy and Execution Framework (MSEF 2.0) for Upstream engineering, and Build Quality in Process (BQiP) Framework to improve our downstream quality, have already shown positive results. To engage employees and develop problem-solving skills, we continue to host Kaizen competitions in all of our plants and mines. We have achieved significant savings in the current year, by implementing some of the 46,212 Kaizen projects and 2,585 continuous improvement projects, submitted by employees.

We have implemented and are in the process of putting in place various initiatives to improve productivity and increase the efficiency at our plants. We have planned to introduce HiPoT technology at Hirakud smelters to improve pot stability thereby reducing specific energy consumption by 100-120 kWh/MT over current figures. These are expected to convert 24 pots to HiPoTs and reduce energy consumption in FY 2024-25.

At Renukoot refinery, we plan to introduce Deep Cone Washers (DCW) to replace conventional washers in FY 2024-25. The DCW have higher efficiency, improved alumina recovery and can solve space constraint issues. This will help us in the recovery of soda and alumina, resulting in the reduction of soda content in alumina.

In the process of manufacturing copper cathodes we have introduced automations which have helped to reduce rejection of cathode nodules.

We implement various process efficiency and quality improvement initiatives in our downstream plants. The target is to involve all our employees through Focussed Improvement Team programmes in line with the BQiP framework. The BQiP framework assesses performance across 24 key criteria, providing a detailed picture of our strengths and areas for improvement at each location. The results have enabled us to track Y-o-Y progress and identify successes – our Alupuram plant achieved 70% while Renukoot Extrusions and Taloja achieved 67%.

At Novelis, our aim is to increase our recycled content while delivering high quality products. We have increased our recycled content in our products to 63% in FY 2023-24 from 61% in FY 2022-23. We take a cross-functional approach at our plants to help us get inputs from all departments, which helps us increase our recycled content.

400 kA Booster Section Project at Mahan

With the help of in-house capability, we increased the amperage of Mahan Smelter (AP technology designed) from 360 kA up to 374 kA through modifications in lining design and other processes.

In order to increase amperage over 380 kA, a new lining design, larger anode size and magnetic compensation loop is required. We have initiated a booster current project to achieve amperage of 400 kA. In this plan, 10 pots booster section with magnetic compensation loop will be installed to test the efficacy of our own cathode lining design and other supporting systems. The project is expected to get commissioned by Q2 of FY 2025-26 and the pots shall be in trial for one year.

Once booster section pots have been tested and found effective, we plan to roll out for the complete potline at Mahan and Aditya. This project is expected to increase the hot metal production by ~50 KT and achieve a specific energy consumption of ~ 13,100 kWh/MT in Mahan and Aditya smelters.

Automating the Copper Cathode Nodule Detection System

Our Copper business produces copper of 99.99% purity level through advanced electrolysis technology. To ensure good quality cathodes for our internal and external customers, we segregate nodulated cathodes before stripping.

Our aim was to automate this process of segregation of cathode plates based on the number of nodules formed on it. We installed FLIER cameras with integrated AI model which regularly monitor the nodules. The AI model detects the nodules based on their size. Since the network is integrated with PLC, the segregation happens automatically. This automation has helped us save 20MT/CSM/month scrap remelting, with refining costs leading to a saving of ₹25 lakh/annum/machine.

We further saw a 33% reduction in rejection of material on account of nodulated cathodes.

It also made it easy to find out from which circuit, section, cell or crop these rejections arose.

Switchyard Online Thermal Monitoring and Analytics

A 220 kV outdoor switchyard equipment is required to have uninterrupted power in our copper smelter and refineries, including auxiliaries. Real time thermal monitoring at component level was required to ensure timely action and achieve 100% availability of this switchyard equipment. To ensure such monitoring, we introduced a thermal vision camera with pan and tilt movements. The fixture consists of 2 servo motors – 1 for vertical rotation and 1 for horizontal rotation. We integrated an AI server to analyse the heat map generated by thermal camera. Whenever it detects an upward deviation from pre-considered threshold value, an alarm gets triggered. This alarm, is connected to the industrial alarms through Wi-Fi relays and get triggered when defects are found.

This initiative has helped us in eliminating manual interventions, improving safety, reliability and reducing breakdowns.

The Copper Business has introduced an integrated AI model to monitor the quality of cathode plates

Enhancing Reliability through Streamwise Maintenance and Standardisation

The Maintenance Strategy and Execution Framework (MSEF), introduced in 2019, has been instrumental in advancing the standardisation and implementation of Maintenance and Reliability (M&R) system and processes within our Upstream businesses. With a focused emphasis on planning, scheduling, and execution, MSEF has evolved to embed robust practices across our plants over the past 4 years, resulting in commendable levels of standardisation in the processes and systems of maintenance and reliability. We launched MSEF 1.0 in 2019 with 12 focused modules and MSEF 2.0 was launched in 2022 with 4 additional modules to meet the comprehensive and forward-looking business requirements as well as industry trends.

As part of continuous improvements, we introduced a 'Stream-wise Maintenance Assessment Framework' which offers a deeper evaluation of core engineering and maintenance practices across domains. This framework works in conjunction with the existing MSEF framework to provide comprehensive assessment and identify further opportunities for improvements in maintenance and reliability.

The Stream-wise Maintenance Assessment Framework has 7 key engineering focus areas:

- Safety
- Adequacy of engineering and maintenance checks
- Implementation of engineering and corrective actions
- Validation of equipment care though equipment history
- Risk-based maintenance strategies
- Classification of spares, inventory and preservation norms
- Digital and predictive analytics

Under Stream-wise Maintenance Assessment Framework, we introduced the concept of 'Unique Equipment Group' and 'Common Equipment Group'. All mission critical equipment across smelters, power plants and refineries have been slotted in one of these 2 groups to enable effective assessment.

We shall carry out assessment through a Taskforce and Standard Assessment Questionnaire (SAQ) approach, which complements the existing MSEF framework. This assessment will be led by Subject Matter Experts (SMEs) within each specific stream, while underscoring our dedication to excellence and continual refinement in our maintenance and reliability endeavours.

Utilisation of Enterprise Asset Management for Plant Maintenance (Ekaayan)

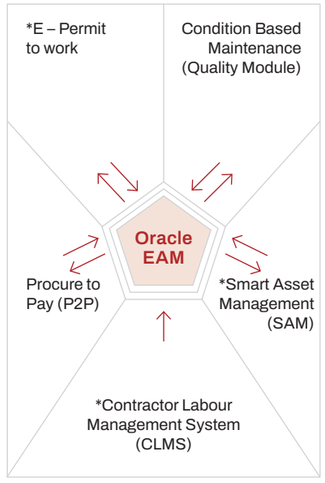
With the objective of automating all business processes through a single ERP system, we implemented Ekaayan system for better business visibility and improved governance. This has enabled us to capture and gain access to real time transactional data of accounting, inventory management, production management, quality management, asset management and various other processes.

Under the umbrella of broader Ekaayan concept, we introduced Enterprise Asset Management (EAM) module of ERP in FY 2018-19. We successfully implemented EAM across upstream plants in a phase-wise manner over a period of 4 years and streamlined the system by FY 2023-24.

Our ERP EAM module was able to significantly streamline the maintenance planning function and capture transactions related to maintenance executions along with utilising the various key functionalities more efficiently.

To tap the full potential of EAM, our Manufacturing Centre of Excellence (MCoE) decided to assess the maturity of EAM-utilisation across plants along with data-centric solutions such as real-time KPI monitoring, maintenance effectiveness, among others. With the aim to drive the adoption of all the key EAM module functionalities and enable plant engineering teams to capture large numbers of transactional data, we initiated Utilisation Maturity Assessment in Q2 of FY 2023-24 to objectively measure the utilisation of EAM-functionalities and map KPI score cards for each functionality. This data can be utilised for deriving insights through data analytics, develop dashboards to monitor asset performance, improve synergy between EAM and third-party applications, while ensuring smooth integration of newly developed applications like Smart Asset Management (SAM) portal.

In the last 3 quarters, there was increase of 65% of EAM module utilisation. We shall continue this initiative over the next 2 years.



→ *Information and data flow
*3rd party applications

Expansion plans are on track for Novelis' cold rolling mill at Oswego, New York

Deployment of Data Management Platforms across Aluminium Upstream Plants

We are deploying a Data Management Platform (DMP) across upstream plants. This shall enable the users to access real time tracking and analysis of processes and maintenance parameters through advanced analytics, seamless integration with ERP systems and third-party sources and make data-based decisions; thereby optimising the resources and achieving higher level of operational excellence.

Real time data is being tracked at already implemented sites (Hirakud Power and Smelter, Muri refinery). This has provided operational efficiency, heat rate improvement, reduction in auxiliary power consumption, among others. The project will be deployed in 2 phases to cover the remaining upstream plants, all based on the readiness of the site for Level 2 OT asset integration. In phase 1, deployment is planned for 9 plants and in phase 2, it has been planned for 4 plants. Full scale benefits are expected to be accrued once DMP is implemented across the plants.

Reduction in DC3 Casting Preparation Time (Phase 2)

The DC3 casting preparation was getting bottlenecked to achieve the production plan for FY 2022-23 of our recycling unit in Yeongju, South Korea. In order to reduce casting preparation time for capacity release during bottlenecks, several initiatives were undertaken to debottleneck this process. A majority of the debottlenecking was achieved by increasing the tilting speed of the holder at the start of the casting process.

The holder at the start of casting had been tilted by using one pump in the original design, and the other pump was redundant. The programmable logic controller was modified to use 2 pumps simultaneously at the start of casting, which saved time by 2 minutes. This also had an increase of 4.2 KT/year in remelt capacity.

Implementation of Specific Improvement for Oswego's Cold Mill Capacity Release

With the implementation and execution of the specific improvements in association with the Routine Management Pillar at our cold mill in Oswego, New York, USA, our team was able to target the cycle time of cold mills in a structured way. This involved execution of 4 steps of the Specific Improvement Pillar namely, Gap Analysis, Best Me approach, Project Execution and Closing the Loop.

The initiative helped us in redefining the visual management for critical variables (e.g. speed adherence) across the Daily Routine Management Framework. This further facilitated capability building on continuous improvement at different levels of the cold mill leadership, data-driven decisions at the shopfloor level, scheduling periodic improvements and increased speed adherence by over 60 p.p. at the cold mill. It also helped in building a structured approach of gaps and productivity losses. The mill saw an increase of 8.3% in daily throughput for both cold mills, increasing the yearly pace from 438 KT in Q3 FY 2023-24 to 482 KT in Q4 FY 2023-24.

Process Digitalisation

Digitalisation: Higher Efficiency, Performance, Transparency

In the past 5 years, we have adopted the most sophisticated digital innovations in our processes and systems, such as IoT platforms, analytics, rapid cloud adoption, AR, blockchain, and drones. This has enabled us to digitalise our core operations while gaining an understanding of our operational requirements. We also make sure to create awareness and take our employees' inputs to deploy relevant digital technologies whenever needed.

To transfer ownership to plants and build capability within our operational teams, we introduced a comprehensive people capability programme – DISHA (Digital Shiksha).

DISHA is designed to upskill our workforce on using key digital technologies to enhance aspects of our operational performance such as energy reduction, judicious consumption of water, and safety enhancement, among others.

Further, we have made strong efforts to enhance the skills of our maintenance and reliability teams, using digital training programmes like AR/VR, interactive training modules, and simulation-based learning. These programmes equip our employees with the knowledge and skills to operate and maintain our equipment effectively.

KPIs addressed through digitalisation

1. **Increasing productivity and efficiency**

   Initiatives
   - Industrial IoT platform
   - Robotic process automation
   - Real-time data
   - Video analytics
   - Data warehouse

2. **Increasing yield and quality**

   Initiatives
   - Digital Twin for Mahan, Aditya, and Hirakud Smelter & CPP, Taloja Downstream
   - In-house development and advance analytics
   - Vision analytics

3. **Improving asset availability (uptime)**

   Initiatives
   - AI / ML-based predictive maintenance platforms

4. **Continuous safety and inspection**

   Initiatives
   - Real-time monitoring and alerts through AI and drones

5. **Customer-centricity (logistics)**

   Initiatives
   - Smart warehouse
   - Track and trace
   - Video analytics
   - e-Bill of lading
   - Logistics Insight Tower (LIT) 2.0

Hindalco introduced DISHA (Digital Shiksha) to build capability in operational teams

For asset performance management, we have adopted digital and predictive /prescriptive analytics. We have also made significant progress in leveraging digital technologies to improve the efficiency and effectiveness of equipment at our plants. One key initiative has been the implementation of predictive and condition-based maintenance. Deployment of sensors and advanced analytics, and technologies like vibration analysis, thermography, ultrasound, and oil analysis, has helped us proactively anticipate equipment failures and perform maintenance activities, thus minimising downtimes and reducing costs.

For real-time visibility of operational parameters at all our downstream operations, we have implemented IoT platforms. A state-of-the-art extrusions management system is already in place at our extrusions facilities. At our mines, we have incorporated a coal supply chain automation project that covers the entire supply chain – from mines to consumption.

Our digital initiatives have improved equipment reliability, increased efficiency, increased sustainability, and reduced costs. We continue to stay focused on aligning digital outcomes with business outcomes and imbibing a digital mindset among our people. We are incorporating digitalisation to improve energy efficiency through initiatives like smelter digital twin, power plant digital twin and energy management platform. Our commitment to improve quality and reduce rejection from customers, in aluminium downstream and copper rods, is also sustained.

We aim to drive digitalisation in sustainability and safety through integrated safety systems, enhanced traceability, and are moving towards paperless operations for end-to-end visibility.

Plant of the Future (POTF) Advanced Predictive Maintenance

At Novelis, we utilised advanced analytics/ Machine Learning, with automatic work order generation through CMMS integration. The aim was to enable prediction and prevention of breakdowns, closed-loop monitoring of asset health across multiple conditions and process variables.

Through this initiative, sensors generate data which are combined with process information for AI/ ML to detect anomalies, automate notification and work request/ work order generation for the maintenance technicians to resolve.

This has helped us in reducing the downtime and released capacity of 3.4 KT.

HUMAN CAPITAL

Empowering Changemakers

Our talent acquisition and management strategy fosters a culture of inclusivity, innovation, and empowerment

Key Highlights during FY 2023-24

71,000+
Global Workforce

₹28.24 crore
Investment in trainings and development*

2,874
New Hires

3.43 million
Training hours

5%
Reduction in LTIFR

** The details provided are for India Operations*

Capital Linkages

- Financial Capital
- Intellectual Capital
- Social and Relationship Capital

Strategic Priorities

- SP-2 Value Enhancing Growth
- SP-3 Strong ESG Commitment

Material Topics

- M9 Occupational Health and Safety

Key Risks and Opportunities

- R6 Stakeholders' focus on ESG

SDG Linkages

As we continue our journey to become a global High-Performing Contemporary Organisation (HPCO), our people are the engines that drive our growth — the catalysts that ignite innovation, the architects of change. While we push the boundaries of manufacturing solutions and foray into new markets, our people will be the key to unlocking our growth potential. Their diverse perspectives and experiences strengthen our decision-making and enable us to navigate through a complex business landscape.

We prioritise a dynamic and adaptive approach, constantly redefining tenets of HR strategic priorities to harmonise with our evolving business needs. Our Values of Integrity, Commitment, Passion, Seamlessness, and Speed are deeply ingrained across all operations. As a people-driven company, we are committed to elevating employee experience, prioritising well-being, and fostering a culture of ownership and accountability. It is our people who enable us to further our mission of creating a greener, stronger, and smarter world.

Focus Areas

- Δ Organisational Effectiveness
- Δ Diversity, Equity and Inclusion
- Δ Human Capital Development
- Δ Employee Well-being
- Δ Human Rights
- Δ Occupational Health and Safety

Hindalco's plants, mines and corporate functions are certified with the Occupational Health and Safety Management System

Strengthening the Core

Our transformation from a traditional metals company to a cutting-edge, and integrated solutions provider, is proof of our commitment to innovation and growth. As part of our journey to transform our culture, we have adopted a set of behaviours to guide us every day- Accountability, Learning, Empowerment, Responsiveness and Teamwork (ALERT). This helps us achieve our 5 key business outcomes: Customer Centricity, RoCE, Pioneer ESG, Sustaining Peak Performance, and Home to Exceptional Talent (CREST).

Our Group's overarching One HR strategy forms the foundation for Hindalco's HR strategy. Our strategy is defined for a 3-year period. Every year, we identify one focus area in line with our business objectives and the needs of our people.

The strategy acts as a guiding principle for individual focus areas- organisational effectiveness, diversity, equity and inclusion, human capital development, employee well-being, human rights, and occupational health and safety.

Our robust governance structure and comprehensive set of policies serve as the foundation for nurturing a workplace that inspires seamless innovation and increases productivity. This makes us a High Performing Contemporary Organisation (HPCO). All these efforts have shaped our organisational culture, yielding tangible outcomes, including a strong leadership pipeline, empowered workforce, and industry-leading sustainability practices.

High Speed
High Performance
HINDALCO

Strengthen the core	Future ready	Holistic Wellness	Employer of Choice	HR Talent and Capabilities
Enhance Productivity	Leadership Pipeline	Physical and Physiological	Repositioned EVP (Customised)	HR Talent Quotient
Sustained Community Development	Talent Quotient	Social and Spiritual	Diversity and Inclusion	HR Capability
Structured Capability Building	Targeted EVP – Front Line and Staff	Emotional	Celebrate frontline/ site focus	Strategic Alignment
Career velocity	Leverage Big Bang in and Big Bang out	Financial		Simplified systems and processes
		SMART townships		

EVERDAY IS A GREAT DAY

Proactive change management, Meritocracy

Digitalisation, Org &Work redesign, Responsiveness, Data driven decisions, Customer Centricity

Ethical Leadership and governance

Our robust Employee Value Proposition (EVP) framework, based on the pillars of Career, Learning and Development, Reward and Recognition, and Enrich Your Life, acts as a guideline that caters to the diverse needs and aspirations of our employees.

Organisational Effectiveness

As a globally recognised manufacturing company and a trusted employer, we continue to direct our efforts towards unleashing the full potential of every individual within the organisation.

Our framework for organisational effectiveness aims to propel employee productivity, as depicted:

All our GETs are given a thorough understanding of the aluminum and copper value chain

Talent Attraction and Management – Fit for Future Workforce

The journey to career transformation begins with appealing to the right kind of talent. As we strengthen our core (Upstream business) and diversify into new business frontiers of downstream, specialty, value-added products, and recycling, we reimagine our talent acquisition and management strategy to foster a culture of inclusivity, innovation, and empowerment.

To cultivate a thriving workforce of tomorrow, we have developed a multifaceted approach that encompasses attracting, developing, and retaining top talent from diverse backgrounds. Our talent management strategy is designed to meet the evolving needs of our organisation, aligning with business objectives, and adapting to the changing landscape of our industry.

Our talent management strategy is built on the following pillars:

1

Hiring Young and Diverse Talent

Creating a young talent pool aligned with Hindalco's strategic plan through:

- Attracting young talent from diverse academic and geographic backgrounds catering to the needs of various functions
- Incrementally increasing the number of Graduate Engineering Trainees and Young Professionals
- Ensuring diverse and inclusive hiring by recruiting women and conducting pre-employment engagement sessions with 'Women on the Shopfloor'

1,000+
Young talent hired from campuses in the last 5 years

Launched potential assessment for Junior management and Development Assessment Centres (DACs) for Junior management

35%+
Women among campus hires

2

Strengthening Expertise and Capabilities

Building capabilities across various domains:

- Development of leadership skills and project management excellence through several in-house and externally associated leadership programmes at each level to cater to talent and succession pipeline.
- Boosting sustainability-focused learning and development.
- Functional and technical capability building to equip employees with skills to cater to current market trends and future landscape (focusing on long-term strategy).

Structured training and development inputs particularly during first 10 years – First Ten Best Ten (F10B10)

Sustainability focused trainings to employees to better adapt to the changing ESG landscape

Building expertise through immersions at Novelis – 12 employees sent for 9-18 months stints and 24 employees for 3 year assignments

3

Accelerating Career Path through Diverse Experience

Placing emphasis on sustainability innovation by:

- Developing a diverse resource pool to promote sustainability and digital innovation
- Implementing proactive cybersecurity measures to safeguard against evolving cyber threats
- Succession planning through structured programmes and providing critical exposure on the job which helps transition to leadership roles

General Management Programme (GMP 2.0) for middle level succession planning

Focused programme involving 13 high potential leaders for developing CXO pipeline

10% Y-o-Y increase
in internal hiring — within Hindalco and other ABG businesses

To nurture young talent, we have devised a Young Talent Management (YTM) strategy, built on 6 pillars – **Enhance Careers, Learning and Development, Rewards and Recognition, Enrich Your Life, Brilliant Basics, and Employer Branding.** By tapping into the potential of young professionals and investing in their holistic development, we are able to build a pipeline of future leaders and provide a foundation for our employees to thrive. We hire Graduate Engineer Trainees (GETs) from campus and provide them with ample opportunities to grow through systemic capability building process throughout the journey at Hindalco. During FY 2023-24, more than 240 GETs were hired. The newly hired GETs undergo 45 days of onboarding orientation with ABG and Hindalco. All the GETs are given a thorough understanding of the aluminum and copper value chain through a systematic 3-day programme. A series of other capability building programmes are also provided. The details of which are mentioned in the Human Capital Development section of the Human Capital chapter.

As an equal opportunity employer, as laid down in Corporate Principles and Code of Conduct, we ensure that our hiring practices are non-discriminatory and free from any bias. We are dedicated to fostering a culture of inclusivity and diversity, where every individual can thrive and reach their full potential, regardless of nationality, caste, religion, colour, or sex. Our onboarding programme provides new hires with a detailed overview of our values through training videos and an employee handbook that details the Code of Conduct.

At Hindalco, our EMBARK 2.0 onboarding process provides a comprehensive framework for integrating new team members across all units. To ensure new employees feel welcome and at ease, we have implemented a buddy system

that offers support and guidance, fostering connections within the organisation from the very first day of an employee. We also actively encourage new hires to share their feedback and experiences at regular intervals. To facilitate this, we have partnered with a third-party company to oversee the induction process and conduct feedback sessions at the end of 10th, 45th, and 90th day. The insights gathered are compiled into detailed reports which are shared with the HR and HR teams at all units, helping us refine our processes. Over the past financial year, EMBARK has significantly improved the onboarding experience, boosting our Net Promoter Score by 20 points i.e., from 42 in April 2023 to 62 in March 2024.

We have utilised technology to optimise our recruitment and onboarding processes. Our advanced Alt Recruit system delivers a seamless recruitment experience, revolutionising the way we welcome new employees to our organisation.

In FY 2023-24, we hired 1,518 employees in India and 1,356 employees at Novelis. The percentage of open positions filled by internal candidates was 52.72% for India operations. We incurred an average employee hiring cost per employee of ₹24,357 for India operations.

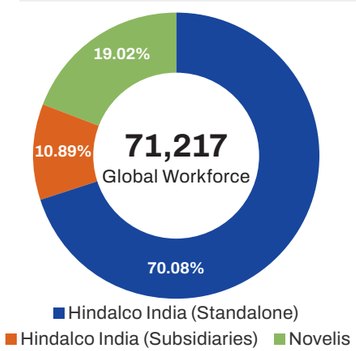
Hindalco is dedicated to fostering a culture of inclusivity and diversity

NEW EMPLOYEES HIRED DURING FY 2023-24:

	Employees Hired	Hindalco India *(Standalone)*	Hindalco India *(Subsidiaries)*	Total
BY GENDER	Male	1,169	60	1,229
	Female	275	14	289
	Total	**1,444**	**74**	**1,518**
BY AGE	<30 years	919	39	958
	30-50 years	507	35	542
	>50 years	18	-	18
	Total	**1,444**	**74**	**1,518**
BY MANAGEMENT	Junior Management	1,402	74	1,476
	Middle Management	38	-	38
	Senior Management	03	-	03
	Top Management	01	-	01
	Total	**1,444**	**74**	**1,518**

Our workforce at Hindalco has grown multi-fold over the past years. Our total workforce for Hindalco India (including subsidiaries) stands at 57,669. In the FY 2023-24, our total India operations workforce comprised 9,651 permanent employees (management and staffs), of which 90.21% are male employees and 9.79% are female employees. Cross-generational diversity is one of our prime strengths, with 25.24% of employees being under 30 years, 53.42% between 30-50 years and 21.33% being above 50 years of age. Our Junior Management employee strength stands at 1,476.

At Novelis, our total diverse and strong workforce strength is at 13,548 with 11,494 male employees, 2,053 female employees and one belonging to others category.



In India operations, we have 6 foreign nationals, 3 from the USA, and 1 each from Germany, Japan, and Switzerland, while the rest are Indian nationals. All of them belong to management level.

TOTAL WORKFORCE DURING FY 2023-24:

	Employees Strength	Hindalco India *(Standalone)*	Hindalco India *(Subsidiaries)*	Novelis	Total
BY GENDER	Male	48,003	7,074	11,494	66,571
	Female	1,906	686	2,053	4,645
	Others	-	-	1	1
	Total	**49,909**	**7,760**	**13,548**	**71,217**

EMPLOYEE CATEGORISATION BY AGE AND MANAGEMENT LEVEL – DURING FY 2023-24:

	Category	Hindalco India *(Standalone)*	Hindalco India *(Subsidiaries)*	Total
BY AGE	<30 years	2,295	141	2,436
	30-50 years	4,717	439	5,156
	>50 years	1,983	76	2,059
	Total	**8,995**	**656**	**9,651**
BY MANAGEMENT	Junior Management	8,031	596	8,627
	Middle Management	820	55	875
	Senior Management	103	4	107
	Top Management	41	1	42
	Total	**8,995**	**656**	**9,651**

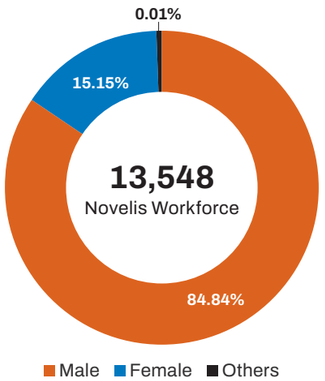
WORKFORCE – INDIA OPERATIONS FY 2023-24:

Employees Strength	Hindalco India *(Standalone)*					Hindalco India *(Subsidiaries)*				
	Male		Female		Total	Male		Female		Total
	Number	%	Number	%	Number	Number	%	Number	%	Number
Permanent Employees	8,104	90%	891	10%	8,995	602	92%	54	8%	656
Total employees	**8,104**	**90%**	**891**	**10%**	**8,995**	**602**	**92%**	**54**	**8%**	**656**
Permanent Workers	12,705	99.52%	61	0.48%	12,766	406	94%	28	6%	434
Other than Permanent Workers	27,194	96.61%	954	3.39%	28,148	6,066	91%	604	9%	6,670
Total workers	**39,899**	**98%**	**1,015**	**2%**	**40,914**	**6,472**	**91%**	**632**	**9%**	**7,104**

At Novelis, our diverse workforce comprises individuals from various backgrounds, cultures, and experiences, fostering innovation, creativity, and inclusivity at every level of our organisation.

TOTAL WORKFORCE CATEGORISATION BY AGE AND MANAGEMENT LEVEL- NOVELIS OPERATION

	Employee Strength	Male	Female	Others *(doesn't wish to specify)*	Total
BY AGE	<30 years	1,502	377	-	1,879
	30-50 years	6,609	1,216	1	7,826
	>50 years	3,383	460	-	3,843
	Total	**11,494**	**2,053**	**1**	**13,548**
BY MANAGEMENT	Junior Management	1,735	876	1	2,612
	Middle Management	1,137	407	-	1,544
	Senior Management	157	49	-	206
	Top Management	53	16	-	69
	Total Management	**3,082**	**1,348**	**1**	**4,431**
	Total Non-Management	**8,412**	**705**	**-**	**9,117**
	Total	**11,494**	**2,053**	**1**	**13,548**



** The total employee count for Novelis includes temporary employee*

Employee Engagement: Measuring our Impact

At Hindalco, our commitment to maximise people's potential is exemplified through our organisational effectiveness initiatives. Our organisational effectiveness calendar is a strategic roadmap designed to encourage employees to take ownership, and accountability to drive business results.

HINDALCO'S ORGANISATIONAL EFFECTIVENESS CALENDAR FY 2023-24

Purpose

My Purpose!

My purpose drives me to take ownership at work

- Personal Purpose Q1 Q2 Q3 Q4
- Discovery Lab Q1 Q2 Q3 Q4

Communication and Recognition

Employee Communication

Providing a Communication Platform for employees to interact with Leaders

- Unit Townhalls Q1 Q2 Q3 Q4
- Skip Manager Connect Month Q2
- Round Table Month Q3

Pride Awards

Appreciating each other's strengths and how to work together

- Champion of Champions Q2
- Pride Recognition Q1 Q3

Wellness

My Wellbeing!

Building Personal Power by taking care of one's own overall wellbeing

- International Yoga Day Q1
- Virtual Session on Building Immunity through Nutrition Q2
- Be Your Own Lakshmi – L1 (Women Employees) Q3
- Virtual Session on Art of Doodling to release stress Q3
- Virtual Session on Ergonomics approach Q4
- Book Worms Reading Challenge 21-days Q4
- Virtual Session on Healthy Cooking Q2
- Global Day of Unplugging Q4
- Self-care challenge Q4

Healthy Minds!

Building Happy Healthy Minds

- Happy Health Minds Bootcamps Q1 Q2 Q3 Q4

Listening

MEffect Survey

Manager Effectiveness Survey

- Launch of MEffect Survey Q2
- VIBES Q3
- GPTW Q4

Diversity and Inclusion

Gender Intelligence Flashmob

Appreciating each other's strengths and how to work together in spite of being diverse

- Gender Intelligence Flashmob Q1 Q2 Q3 Q4

POSH Policy Drive

Refresher of POSH Policy and process

- POSH Awareness Drive Q1 Q2 Q3
- POSH IC Members Training Sessions Q2 Q3

Inter-generational dialogues

Coming together to understand the different styles of working, listening to ideas, etc.

- Inter-generational Dialogues Q2 Q3 Q4

Living Library Virtual Sessions

Learning from our own employees on how to work together in diverse culture

- Living Library Sessions Q1 Q2 Q3 Q4

WAH Connect and Networking Forums

Providing opportunities to women employees to interact and connect with women

- WAH Connect and Networking Q2 Q4

Accountability | Learning | Empowerment | Responsiveness | Teamwork

Employee Engagement Initiatives

With the aim of continuous improvement and to cultivate a culture of transparency, we conduct a range of employee engagement surveys to gauge the effectiveness of the organisation. Every 2 years, we conduct a Group-level VIBES survey, administered by an independent third-party, to quantify employee sentiment and workplace effectiveness.

In addition, we participate in the 'Great Place to Work' (GPTW) survey, which provides us with an external perspective on our organisational practices and culture. This survey assesses employees across various parameters, including job satisfaction, sense of purpose, happiness at the workplace, and stress management.

To further deepen our understanding of employee perspectives, we also conduct Manager Effectiveness Survey (MEffect) and in-depth HR stakeholder surveys involving our management cadre, staff, and workmen. These surveys provide valuable insights into leadership effectiveness, HR performance, work-life balance, and workplace satisfaction, enabling us to make data-driven decisions that enhance overall employee experience.

Rohit Pathak, CEO - Copper business, at an event organised to mark the 25th anniversary of the business under the Rajatotsav umbrella

Highlights during FY 2023-24:

- Witnessed 90% participation in VIBES survey FY 2023-24. The survey is administered at the ABG level and conducted by a third-party. The previous survey was conducted in FY 2020-21
- Overall VIBES 2023 score 92% (85% previously), Health and Wellness 84% (82% previously), Manager Effectiveness 84% (80% previously), and Infrastructure questions 88% (85% previously)
- Recognised among India's Best Workplaces™ in Manufacturing: Top 50 by Great Place to Work in January 2024
- Recognised as a Leadership Factory of India by Great Managers Institute of India in May 2023
- Achieved the prestigious certification as a 'Great Place to Work' for the third consecutive year in 2024
- Recognised as top 10 for Health and Wellness as per GPTW 2024
- Recognised in Nation Builders category by GPTW in June 2023
- Under GPTW, achieved an overall score of 87 on employee engagement with coverage of 95% of employees
- With a target of 76%, Novelis achieved an overall score of 75% with top level of engagement, satisfaction, wellbeing, or employee net promoter score (eNPS) with coverage of 67% of employees

We regularly engage with our employees through townhalls, HR summits, and conferences to promote transparency and encourage feedback. During the year, 17,749 employees and workers were covered under townhall, 2,610 employees and workers were covered under roundtable and 968 of the total management cadre and LMS employees were covered under skip manager meeting.

Celebrating 75 Glorious Years: A Diamond Jubilee Commemoration of Muri Works

"There are very few companies in the world that last 75 years, Muri is one of them. The way Muri has come up with so many innovations with multiple uses of bauxite residue in making cement, bricks and roads is highly commendable."
- Mr. Satish Pai, *Managing Director, Hindalco Industries Limited*

On 28 March 2024, we celebrated a milestone of Muri Works completing 75 years of manufacturing excellence in the industry. The Diamond Jubilee celebration served as a testament to the collective achievements of employees, retired colleagues, business partners, and stakeholders. During the event, 15 workers who served for more than 35 years were felicitated with long-service recognition.

Rajatotsav – 25 Years of Hindalco's Copper Business

"Rajatotsav" was a celebration of Hindalco's Copper division turning 25 years. More than 5,500 employees and their families were a part of series of events organised by the Hindalco's copper team. The **'Birla Copper Got Talent'** witnessed participation of 250+ contestants across various categories.

Cultural Transformation Journey

At Hindalco, we are on a culture transformation journey. Our strategic initiatives such as 'Shillim Culture Transformation', 'Parivartan', and 'Tamrodaya' are instrumental in driving our objective of becoming a High Performing Contemporary Organisation that exemplifies excellence and innovation.

The Shillim Movement seeks to de-emphasise hierarchy, cultivate a winning mindset, and inculcate "Apni Zimmedari", which emphasises that culture change is everyone's responsibility. To drive Shillim across the organisation, we identified 200 Culture Change Champions (CCCs) and provided capability building sessions to them. Till now, we have covered more than 7,500 employees through Culture Cascade sessions. In this reporting period alone, we have identified and trained 75 CCCs.

The CCCs are deeply involved in executing new experiences such as "Bhoomika Board" and celebrating the achievements of 50,000+ people through Bhoomika Cards. We expanded the Shillim 365 coverage to units and clusters to strengthen inclusiveness and cascaded culture transformation at all levels. A total of 2,516 employees participated in Shillim workshops across Hindalco in FY 2023-24. The impact of Shillim is evident in the significant improvements in our VIBES scores.

Holistic Large-scale Transformation – 'Parivartan 2.0' at Renukoot

The Renukoot plant- a cornerstone of our organisation since its inception, has been instrumental in driving organic and inorganic growth throughout its journey. However, we recognised the need for a paradigm shift to ensure its long-term viability and sustainability. To fulfil this objective, we conducted a diagnostic study which revealed the imperative need for technological advancements, recruitment of young talent, environmental sustainability, regulatory clarity, and more. The outcome was a pioneering multi-year initiative, "Parivartan RKT 2.0", designed to transform our operations through a cross-functional and cross-hierarchical approach.

Vision, Objective and Scope of the Initiative:

A sustainable, profitable plant and an enjoyable place to work, smart and vibrant township with inclusive culture and a happy, prosperous and a self-reliant neighbourhood.

The key objectives are:

- Build an empowered cross functional team working to generate creative ideas
- Create a safe workplace built on the culture of mutual trust and empathy
- Build a vibrant township with the help of active spouse engagement
- Improve product quality and enhance customer satisfaction

The Process:

Parivartan RKT 2.0 involved a comprehensive engagement programme, which included initiatives such as leadership workshops, Large-Scale Interactive Process (LSIP) meetings, and engaging with Mahila Samitis to facilitate the participation and inclusion of all stakeholders. Through the initiative, we instituted top-down, bottom-up and horizontal communication lines. It is a 4-phased programme as shown here

PHASE I

Preparing the Soil/Unfreezing

PHASE II

Pilot Successes

Initiation of Culture of Continuous Improvement/Daily Management and progress on Focused Improvement projects – Pilot Implementation

PHASE III

We are here

Detailed implementation

All key initiatives by involving a significant mass is in different activities related to transformation

Developing internal capability

PHASE IV

Institutionalisation

Outcomes:

As a result of the initiative, we recorded significant changes in Renukoot's way of operating. All our employees were well-trained to focus on areas such as customer centricity, ALERT behaviours, and Kaizen. This initiative further led to the revamp of township infrastructure.

The Copper Business' transformation journey Tamrodaya comprises initiatives like process improvement, customer centricity, capability building

Tamrodaya – Hindalco Copper Business' 1.5 years journey of cultural transformation

Our Copper business embarked on its own transformational journey, Tamrodaya, under the theme "Good to Great". We launched the initiative in August 2022 and involves the stages of Inspire, Mobilise, and Shift guided by the principle of "Total Employee Involvement". Through the initiative, we aim to enhance the culture of Collaboration, Agility, Engagement, Inclusivity, and Ownership, known as C-A-S-I-O. The programme is focused on adopting an internal customer orientation, promoting a mindset of continuous improvement, and fostering collaboration across functional boundaries to eliminate inefficiencies.

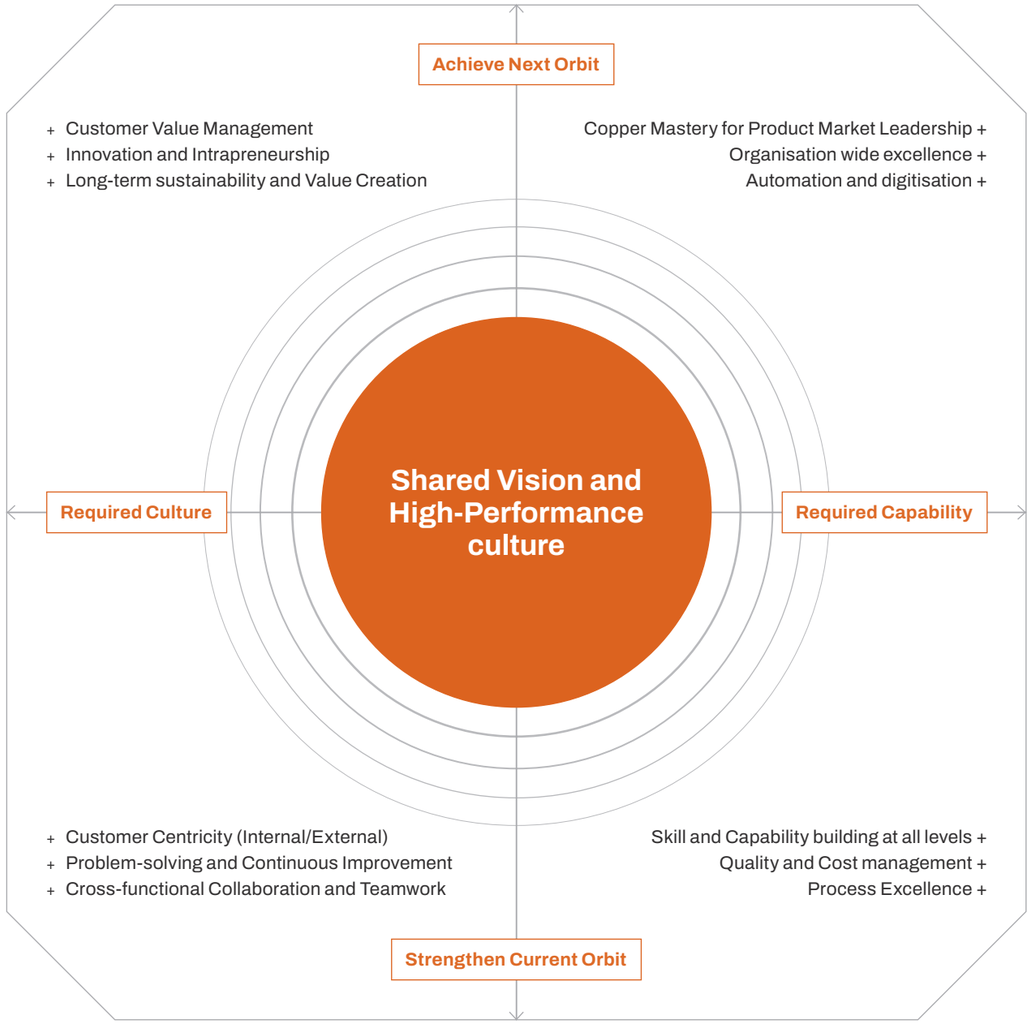
We partnered with a third-party firm to conduct a survey in which approximately 300 employees participated. The survey helped us to understand their needs and aspiration. Basis the responses, the objectives of the journey were identified to be as follows:

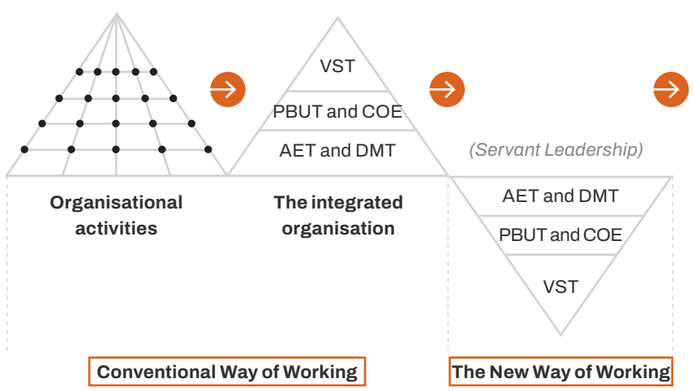
- Build and celebrate One Birla Copper
- Build a culture of ownership, empowerment, and trust
- Meet and exceed valid requirements of internal and external customers

To achieve the desired objectives, we introduced several initiatives such as focused improvement, process improvement, customer centricity, capability building, and culture track along with traditional initiatives such as 5S and Kaizen.

Through a focused capability building programme, we ensure expertise across technical, functional, and leadership domains, enabling Copper business to become one of the global leaders across product portfolios and markets. All employees and other stakeholders co-created the "Future of Birla Copper" (Birla Copper Vision): "We are committed to deliver world-class products and solutions for making the world greener and smarter in a sustainable manner, driven by innovation, collective ownership, and shared success."

Until now, 80 employees have directly contributed towards orienting the approach and methodology of this initiative, 540 employees are directly engaged in implementing change interventions. About 82% of the front-line workers have positively contributed towards continuous improvements.





From	To
Command and Control	Serve
Review	Review and Value Addition
Supervision	Contribution
Incremental thinking	Raise the bar and recognise right behaviour

Shift in behaviour

Performance Evaluation: Empowering Excellence and Inspiring Growth

At Hindalco, we are committed to empowering our growing talent pool to reach new heights of professional excellence, provide recognition, and opportunities for continuous learning and growth.

We conduct a structured bi-annual employee evaluation process to provide regular feedback. Our performance assessment, rated on a 5-point scale, applies to all permanent employees. Management cadre employees undergo potential assessments and detailed talent evaluations to recognise the top 20% high-potential employees across the Company. Mid-year reflections and year-end evaluations provide them with the opportunities for recalibration, ensuring adaptability in a dynamic business environment.

Our performance evaluation process comprises the following:

+ Annual goal-setting exercise with defined timeline, facilitating a synergistic alignment of individual objectives with Hindalco's strategic vision, thereby driving high-impact performance, collaborative teamwork, and transformative career development
+ Promote self-evaluation through group engagement exercise
+ One-on-one conversation with managers to foster open dialogue and transparency

Our PerformFIT is a cutting-edge platform that enables managers to recommend their team members for performance-based recognitions, including performance ratings, merit increase percentages, and Annual Incentive Pay (AIP), thereby streamlining the talent development process. The platform has been instrumental in facilitating transparent communication and managing budget allocations, promotions, merit increase, and salary corrections as per market standards to understand their individual goals and expectations.

We have adopted a multidimensional approach to performance appraisal that enables transparent and holistic evaluation, ensuring 360-degree feedback process. By leveraging our digital platform "PingME", we have automated the process to give, seek, and document feedback, providing real-time visibility and insights. Based on the principles of agile conversation, we conduct regular conversations with the employees and seek continuous feedback.

Our workers are also eligible for performance evaluation and appraisal. In FY 2023-24, we integrated the 'Hindalco Workmen Promotion Policy' into 'LMS/ Supervisory Cadre' Policy with the to provide growth and promotion opportunities across the workforce. Upon promotion to supervisory roles, all employees and the workman undergo a comprehensive, 6-month structured Learning and Handholding Programme.

The programme is followed by a detailed review to ensure a seamless transition into their new positions. During the reporting period, 92% of our permanent employees and 34.21% of permanent workers were covered under the appraisal system for Hindalco India (Standalone). Additionally, at Hindalco India (Subsidiaries), 100% of permanent employees and 93.55% of permanent workers were covered under performance and career development reviews.

In FY 2022-23, 100% of our permanent employees, 31.98% permanent workers of Hindalco India (Standalone) and 91.38% permanent workers of Hindalco India (Subsidiaries) were covered under the appraisal system. Our Values are woven into the performance evaluation process, ensuring all employees uphold them. Any value violations reflect in the appraisal process.

Hindalco has a structured bi-annual employee evaluation process to provide regular feedback

Recognition and Retention – Celebrating Talent

At Hindalco, we acknowledge and celebrate individual and team achievements through an array of innovative recognition programme. The Chairman's Individual Awards, PRIDE Awards, the PRAISE Portal, Bhoomika Recognition, and Employee Appreciation Day celebrations are a few of the initiatives designed to recognise outstanding performances.

During the reporting year, we organised Manthan, an annual strategy, sales, and operations meet for Hindalco's Specialty Alumina business. Exceptional contributions and achievements were recognised at the Manthan Reward and Recognition ceremony. Awards were given in 13 categories including 2 new ones — 'Digital Champion of the Year' and 'Brand Builder of the Year'.

Our compensation strategy combines competitive compensation, performance-linked remuneration, and a range of recognition programme at the Unit, pan-organisation, and Group levels.

In our ongoing commitment to build a stable and sustainable workforce, we closely monitor and manage our employee turnover rates. During the reporting period at our Hindalco India (Standalone), the permanent male employee turnover was 7.62% and permanent female employee was 10.43%, accounting to a total employee turnover rate of 7.87%.

The turnover data includes employees who left the organisation due to dismissal, termination, retirement, or death in service. Our voluntary employee turnover rate was 5.46% for our Hindalco India operations including subsidiaries.

Our permanent worker turnover for the reporting period was 2.62% males and 1.12% females, amounting to a total permanent worker turnover rate of 2.61% for our Hindalco India (Standalone) operations.

Novelis' total employee turnover rate was 9.01%, and the voluntary employee turnover rate was 3.71%.

EMPLOYEE TURNOVER DURING FY 2023-24: HINDALCO INDIA OPERATIONS

	Employee Category	Hindalco India *(Standalone)*	Hindalco India *(Subsidiaries)*	Total
BY GENDER	Male	606	43	649
	Female	84	3	87
	Total	**690**	**46**	**736**
BY AGE	<30 years	217	14	231
	30-50 years	252	26	278
	>50 years	221	6	227
	Total	**690**	**46**	**736**
BY MANAGEMENT	Junior Management	617	40	657
	Middle Management	57	6	63
	Senior Management	10	-	10
	Top Management	6	-	6
	Total	**690**	**46**	**736**

DETAILS OF TURNOVER RATE OF PERMANENT EMPLOYEES AND PERMANENT WORKERS: HINDALCO INDIA *(Standalone)*

Particulars	FY 2021-22*			FY 2022-23			FY 2023-24		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Permanent Employees	5.06%	7.85%	5.26%	7.37%	13.10%	7.85%	7.62%	10.43%	7.87%
Permanent Workers*	4.54%	19.15%	4.63%	5.27%	72.15%	5.69%	2.62%	1.12%	2.61%

** Detail for FY 2021-22 is for Hindalco India (Standalone and Subsidiaries)*
*Note: Turnover rate = (No. of persons who have left the employment of the entity in the FY *100) / Average no. of persons employed in the category)*

Diversity, Equity, and Inclusion

"Let us forge a powerful alliance to shape a workplace culture that thrives on inclusivity, equity, and diversity, propelling both individual and business growth." This is the visionary commitment of Hindalco and the Aditya Birla Group towards fostering Diversity, Equity, and Inclusion (DE&I).

At Hindalco, we unlock the inherent strength of our vibrant and unique workforce. Our commitment to Diversity, Equity, and Inclusion (DE&I) resonates with the deeply engrained culture of 'embracing the difference'. We are home to diverse talents belonging to various educational backgrounds, expertise, caste, gender, geographic origin, religion, family responsibility, age, disability, and socio-economic status.

Our journey towards a more diverse and inclusive workplace is not merely a statistical evolution; it is a strategic imperative. Our transformational journey started in 2013, when approximately 135 women were part of our management. Fast forward to 2023, this number has nearly tripled, reaching an impressive count of 385 female employees at the management level. During FY 2023-24, share of women in our workforce was 9.79% and 15.15% for Hindalco and Novelis respectively. In addition to these numbers, we have also seen an improvement in engagement scores (VIBE Survey) for our women colleagues, from 75 in 2019 to 85 in 2023.

Our internal policies, procedures and mechanisms guide us to uphold fairness and equality; fostering an inclusive ethos that goes beyond gender, race, or age. We have zero tolerance towards any form of sexual or non-sexual harassment as stated in our Corporate Principles and Code of Conduct. Our policy on Prevention of Sexual Harassment ensures the safeguarding of our women employees with specific clauses for no retaliation. We also have a formal and structured grievance redressal mechanism for swift resolution of grievances and complaints while maintaining anonymity, confidentiality, and impartiality.

Hindalco provides flexitime and work from home provisions for corporate employees

We have adopted several measures to enhance diversity, equity, and inclusion at Hindalco. To propel our DE&I agenda, we have implemented a **Dual Career Policy** to provide jobs to both spouses which enables them to stay in one location. In order to support work-life balance of employees, we also provide flexible work hours- **Flexitime** and **Work from Home** provisions for corporate employees. Recognising the importance of childcare, we provide creche facilities to all our employees across units and partner with organisations like Ipsaa to offer reliable support to working parents at the regional and corporate offices.

To further develop the collective knowledge and encourage synergistic working practices in a diverse environment, we have built a Gender Intelligence Module. The module, aimed at building an inclusive workplace, create awareness among employees on topics such as workplace biases, stereotypes and appropriate behaviours.

Connecting Women through Employee Resource Groups (ERG)

Our Employee Resource Groups have played a critical role in bringing our employees closer while providing professional and personal development. The ERGs are a cornerstone of our diversity and inclusion strategy, driving meaningful change and impact within Hindalco and beyond. Through a range of initiatives, we are nurturing a self-sufficient community of empowered women who are committed to creating positive change and advancing our organisation's social responsibility goals.

During the year, we undertook several initiatives under **W**omen **A**t **H**indalco (WAH). These initiatives contribute to the creation of a workplace where diversity is an ingrained culture that propels sustainable growth:

Women Leadership Programme

Soaring High 3.0

- Designed for women employees focusing on behavioural aspects that would enable women to deal with specific women related challenges to grow; specific to Career Phases, Self- Belief and Resilience, Personal Impact and Evoking sponsorship
- In December 2023, a 4-day workshop was conducted wherein High Potential Women Managers participated to kick-off the programme

Springboard

During the year, 5 of our women managers participated in Hindalco's accelerated Leadership Programme conducted by Gyanodaya for mid management women employees.

Women Councils

Women councils form an integral part of creating a culture of diversity and inclusion. They aim to provide avenues for our women employees to discuss concerns and issues within their professional and personal life to further their career advancement. Each council has Council Coaches, Galpals and Facilitator Members. These meetings are conducted once in 2 months to discuss important points with Council Coaches and Management regarding design interventions for capability building of the members.

Gender Sensitisation Programme

Gender Intelligence – 350+ people were covered under the initiative. A total of 55 safe guarders from 11 plants made people aware on how to communicate in a gender sensitive manner. Sensitisation was reinforced through innovative role plays and games such as Snakes and Ladders. The informal feedback suggests that the initiative has had a positive impact.

Awareness Programme:
This includes

- **POSH Nukkad Naataks:** imparted awareness on POSH Policies and appropriate workplace behaviours in Hindi among 600+ staffs and workmen across 7 plants and mines.
- **POSH Online Course:** covered 3,450 management employees.
- **POSH IC Member Training:** conducted at Ranchi wherein 35+ IC Members attended. Also, there were virtual sessions which covered 70+ IC members.
- **WAH Mentorship Programme:** 12 Women Employees (ERG Members) who mentor and guide women.
- **DEI Visioning Exercise:** conducted with 200+ women colleagues across Hindalco. 80% of our women colleagues shared enabling and restraining forces they experience at workplace.

Well-being of women employees

Life Unlimited — An employee assistance programme for all women, especially employees who are expecting or have recently returned to work after maternity. Provides a confidential and supportive platform for them to share their concerns, ask questions, and receive guidance on navigating their career journey with confidence and ease.

"Be Unstoppable" — An umbrella of policies enabling travel, transition, and safety for women colleagues. We have flexible travel policy with additional benefits, accommodation, car booking facilities, Zero-tolerance POSH policies ensuring safe working environment, and robust maternity support programme to provide benefits which extend even after return to work.

The art jamming sessions conducted under WAH brought out the unique experiences and perspectives of our women colleagues

"When I joined in a remote plant location, everybody made sure to make me feel secure and comfortable. I used to get calls from my seniors, higher management and colleagues. At the plant, I learned many new things and faced challenges at work which only made me stronger. Township life is like a home away from home. There are quite a few things that make Hindalco a safe place to work:

- Being treated with respect
- Certain specific policies tailored for women employees
- Regular seminars conducted for gender sensitisation
- Our senior management, including MD, puts a lot of focus on women safety"

Anupriya Srivastava

Our efforts to drive gender diversity organically is evident in the rise in the number of women hires, with 40% of Graduate Engineer Trainees (GETs) being women.

In addition to our hiring efforts, we invest in building the next generation of women technical leaders by providing access to science, technology, engineering, and mathematics (STEM) education. As part of our efforts to improve diversity at all levels, we have taken targets to increase the representation of women in the total workforce.

Newly hired GETs undergo 45 days of onboarding orientation with Aditya Birla Group and Hindalco

THE TABLE REPRESENTS THE PROGRESS MADE IN FY 2023-24 AS AGAINST THE TARGET SET IN FY 2022-23:

Diversity Indicators	Percentage at Hindalco India *(Standalone + Subsidiaries)*	Percentage at Novelis	Total
Women in total workforce *(as % of total workforce)**	9.79% *(Target for FY 2024-25: 10%)*	15.15%	**12.92%**
Women in all management positions, including junior, middle, and top management *(as % of total management positions)*	9.70% *(Target for FY 2024-25: 10%)*	30.42%	**19.25%**
Women in junior management positions, i.e., first level of management *(as % of total junior management positions)*	10.60% *(Target for FY 2024-25: 12%)*	33.54%	**19.44%**
Women in top management positions, i.e., maximum two levels away from the CEO or comparable positions *(as % of total top management positions)*	4.76% *(Target for FY 2024-25: 6%)*	23.19%	**16.22%**
Women in management positions in revenue-generating functions (e.g., sales) as % of all such managers *(i.e., excluding support functions such as HR, IT, Legal, etc.)*	6.02% *(Target for FY 2024-25: 8%)*	34.97%	**10.11%**
Women in STEM-related positions *(as % of total STEM positions)*	7.44% *(Target for FY 2024-25: 8%)*	7.38%	**7.40%**

** Does not include workers*

In line with the Rights of Persons with Disabilities Act of 2016, we ensure that our People with Determination (differently abled employees and workers) have equal access to all facilities and do not face any discrimination.

In FY 2023-24, we had 43 People with Determination across our workforce.

DIFFERENTLY-ABLED EMPLOYEES AND WORKERS DURING FY 2023-24:

Type of workforce	Hindalco India *(Standalone)*			Hindalco India *(Subsidiaries)*		
	Male	Female	Total	Male	Female	Total
DIFFERENTLY-ABLED EMPLOYEES						
Permanent Employees	9	-	9	-	-	-
Total employees	**9**	**-**	**9**	**-**	**-**	**-**
DIFFERENTLY-ABLED WORKERS						
Permanent Workers	17	3	20	-	-	-
Other than Permanent Workers	11	3	14	-	-	-
Total workers	**28**	**6**	**34**	**-**	**-**	**-**

Gender Pay and Remuneration

To foster a culture of high performance, we offer a competitive compensation package that rewards exceptional achievements and aligns with industry standards. Our performance-linked remuneration framework is carefully crafted to take into account individual qualifications and experience.

To deepen the roots of sustainability in the organisation, we have incorporated sustainability parameters into our annual incentive payout (AIP). This motivates our employees to take initiative and work towards driving change across the organisation.

The details of AIP are provided in the Natural Capital section of this report.

For executives, our Remuneration Policy ensures a transparent and merit-based approach to decision-making, reflecting our commitment to fairness and equity. At the executive level the base salary of male employees is ₹12,667,912 with a total remuneration of ₹14,437,999, while that of female employees is ₹8,902,873 with a total remuneration of ₹10,302,309. At the management level, the average base salary of male employees is ₹1,637,053 with a total remuneration of ₹1,751,969, while that of female employees is ₹1,201,797 with a total remuneration of 1,313,639. At the non-management level, the average base salary of male employees is ₹567,781 with a total remuneration of ₹614,472 while that of female employees is ₹444,897 with a total remuneration of ₹486,462.

DETAILS OF REMUNERATION FOR FY 2023-24: HINDALCO INDIA *(Standalone)*

Category	Male		Female	
	Number	Median Remuneration	Number	Median Remuneration
Board of Directors*	8	5,932,500	2	16,735,000
Key Managerial Personnel Management	2	200,280,500	1	10,065,000
Employees other than BoD and KMP	8,104	939,018	891	700,000
Workers	12,705	53,595	61	40,845

** Mr. Anant Maheshwari, Independent Director, resigned w.e.f. 18 October, 2023. Hence, the ratio of his remuneration to the median and increase in remuneration is not comparable.*

***Note:** Remuneration excludes amortisation of fair value of employee share-based payments under Ind AS-102 and provision for gratuity and leaves encashment recognised based on actuarial valuation as separate figures are unavailable.*

GROSS WAGES PAID TO FEMALE EMPLOYEES AS % OF TOTAL WAGES PAID: HINDALCO INDIA *(Standalone)*

Particulars	FY 2022-23	FY 2023-24
Gross wages paid to females as % of total wages*	7%	7.53%

** Includes data for management and staff cadre employees*

We are committed to improving the lives and providing livelihood opportunities to the local people, in areas where we operate. We adhere to the laws and regulations pertaining to employment of local people, including Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959, and other prescribed local laws, or regulations of respective state governments. Employment to local people is provided in accordance with the ratio defined in the state-wise employment Memorandum of Understanding (MoU) for various categories such as unskilled and semi-skilled, skilled, supervisory management, and senior executives.

In alignment with the requirement of the local regulations and our commitment to build a resilient workforce, we have well-defined strategies in place to ensure local employment for our operating plants and mines. Across our operations in India, we are implementing a company-wide policy on local employment to ensure compliance with employment regulations.

Considering our widespread presence across various geographies in India, we have defined local people at country level. At the operating site level, approximately 100% of employees are local people, and near to 100% of senior management positions are held by employees hired from local community.

Furthermore, we offer dedicated training and capability development programmes to support local unemployed individuals and nurture leadership talent within the community. More details regarding these programmes are provided in Social and Relationship Capital section of this report.

WAGES PAID AS % OF TOTAL WAGE COST**

Location*	Hindalco India (Standalone)	
	FY 2022-23#	FY 2023-24
Rural	25%	23%
Semi urban	45%	61%
Urban	4%	3%
Metropolitan	26%	13%

** Employees have been categorised as per RBI Classification System – rural/semi-urban/ urban/ metropolitan*
 # Comprise data for only permanent employees. Data for permanent workers and other than permanent workers is not included due to unavailability of data tracking mechanism during FY 2022-23.
*** Including employees or workers employed on a permanent or non-permanent / contract basis*

Human Capital Development

At Hindalco, we focus on scaling impact through holistic development of our workforce. Our 'A World of Opportunities' (AWOO), a key element of our EVP, ensures that each employee has access to a plethora of learning opportunities along their career trajectory at Hindalco.

To drive individual and organisational growth, we employ a multifaceted strategy to identify the training needs of each employee. This encompasses competency proficiency assessment through individual COMPASS report, career aspirations, one-to-one discussion with managers, HRBPs, business heads and functional heads, Development and Assessment Centre (DAC) reports, talent councils, specialist career path, 360-degree feedback, among others.

Throughout the process, we engage with key stakeholders and provide them a precise snapshot of their strengths and areas for improvement to build a skill development map. The assessment helps us to create personalised development plan for individual employees, termed as "My Development Plan" (MDP). This helps us to effectively track the implementation of development plans throughout the year.

To ensure our workforce remains future-ready, we have designed bespoke learning programmes that are anchored around 5 broad areas:

1. **Competency Building- behavioural and functional capabilities**
2. **Leadership Development Programmes**
3. **Coaching Culture**
4. **Technical Capability Building- Hindalco Technical University**
5. **Driving Digital Transformation**

We leverage Cornerstone on Demand (CSOD) platform wherein we track the details of the programmes that were conducted during the reporting period, along with the details of attendees.

Our comprehensive training programmes are designed in a way which contribute, either directly or indirectly, to our journey of becoming a High-Performance Contemporary Organisation.

HINDALCO'S GROUP OUTREACH PROGRAMMES AND ITS CONTRIBUTIONS TO HUMAN CAPITAL MANAGEMENT PLAN

Holistic Wellness

ENLPLR: Designed for employees nearing retirement to prepare them for post-retirement phase

Employer of Choice

CareerAbility: To help employees invest in their careers

Strengthen the Core

ICF Coaching: To establish coaching as an organisational culture by developing internal coaches

Art of talkamatics: To enable the participants to connect with their audience in various professional situations

Strategic procurement function's journey to becoming HPCO: A 12-14 months journey on Team, Self and organisation building

Future Ready

Copper Mentoring Programme*: Designed for Copper business focusing on developing mentoring skills of Business Leaders

GMP 2.0 (Lead from Middle)*: Programme focused to equip the middle managers

XSEED: XSEED aims at future proofing Hindalco's young managers for an agile and proactive talent pool.

Soaring High 3.0: Designed for women employees focusing on behavioural aspect, career phases, self-belief and resilience, personal impact

Employee Integration Programme: To help young first-time managers to get a detailed 'big picture' overview of the Metals Business

** New Programmes introduced during the reporting period*

Leveraging Technology | Embedding Sustainability | Platforms and Accreditations | Rewards and Recognition

Competency Building

Behavioural and functional training programmes are vital components of our employee development programme. Through our digital learning platform, Gyanodaya Virtual Campus, we have been able to provide 2,000+ online courses and 12,000+ university-certified courses on more than 3,000 different topics. During the reporting period, we have also increased focus on green skilling of our workforce through sustainability courses.

Behavioral Competency – During the FY 2023-24, we provided 1,500+ behavioural competency trainings on teamwork/collaboration, influencing, communication skills, getting results, customer orientation, vision, and strategy. We have also conducted other learning interventions such as Saksham, Saarthak, Udaan, Quality Circle, Emotional Intelligence, JOSH, SPARSH, Ek Kadam Aage, Unleash your Potential, Strategic Procurement- Journey towards HPCO, 7 Habits of Highly Effective People and Building Positive Attitude, Inspire, Being Your Best, Toastmasters, ASPIRE, Making Emotions Work for Me, etc.

Functional Competency – Our employees are presented with over 3,000+ programme offerings, tailored to the requirements of business and industry dynamics. Our interventions aimed at improving functional competency include BizUp, Pricing Competence, HR Analytics, Business Analytics, HR Connect 2.0, etc.

3,000+
programmes offered to our employees

- **BizUp 2.0:** A programme for sales professionals which comprises 4 learning modules: macro-economic, financial acumen, business acumen, and negotiation skills. Once the employees complete all the 4 modules, they work on live business project over a span of 11-12 months and present to a panel comprising CEOs and CHRO.
- **ASCEND 2.0:** Programme for High Potential (HiPo) sales and marketing employees focused on developing interpersonal skills, customer management and creating effective business proposals.

Green Skilling: The world needs a collective response to mitigate climate crisis. To achieve this, we are equipping our workforce with the necessary skills and knowledge to drive sustainable development. We offer a suite of 35+ courses to our employees aimed at developing a deep understanding of the prevailing environmental complexities and challenges. The topics include environmental overview, climate change, carbon footprint, waste management and circular economy, resource conservation, water management, and biodiversity, with a strong focus on the regulatory requirements of countries where we operate. During FY 2023-24, 184,277.35 hours of sustainability training were completed by our employees at Hindalco India (Standalone and Subsidiaries) and 35,164.67 hours of sustainability and ESG trainings were provided at Novelis.

Energy

13 Topics

- Strategies for reducing energy consumption
- Renewal energy solutions
- Energy conservation and emission reduction awareness

Waste

49 Topics

- Waste reduction and resource efficiency
- Waste segregation and recycling
- Plastic pollution and its effect

Water

44 Topics

- Water conservation and management
- Geospatial technology in watershed treatment
- Groundwater contamination and prevention

Biodiversity

8 Topics

- Biodiversity conservation and habitat restoration
- Invasive species management
- Impact of human activities on aquatic life

Air Emissions

11 Topics

- Air pollutants (PM) sources and its impact
- Ambient Air Quality – DFAT area
- Cause of air pollution and occupational health awareness

Climate Change

8 Topics

- Global warming & climate change
- Climate resilience planning
- Climate adaptation strategies

Other Trainings: We also offer employees other training programmes such as enterprise risk management, safety, human rights, supply chain, security management, transport and logistics, among others.

EMPLOYEES AND WORKERS TRAINED ON HEALTH AND SAFETY MEASURES AND SKILL UPGRADATION DURING FY 2023-24

Category	Hindalco India *(Standalone)*					Hindalco India *(Subsidiaries)*				
	Total (A)	On health and safety measures		On skill upgradation		Total (D)	On health and safety measures		On skill upgradation	
		No.(B)	%(B/A)	No.(C)	%(C/A)		No. (E)	%(E/D)	No.(F)	%(F/D)
NO. OF PERMANENT EMPLOYEES										
Male	8,104	8,104	100%	5,035	62.12%	602	602	100%	129	21.43%
Female	891	891	100%	377	42.31%	54	54	100%	12	22.22%
Total	**8,995**	**8,995**	**100%**	**5,412**	**60.16%**	**656**	**656**	**100%**	**141**	**21.49%**
NO. OF PERMANENT EMPLOYEES										
Male	12,705	12,705	100%	1,453	11.43%	406	406	100%	-	-
Female	61	61	100%	-	-	28	28	100%	-	-
Total	**12,766**	**12,766**	**100%**	**1,453**	**11.38%**	**434**	**434**	**100%**	**-**	**-**

** We are reconciling data related to training exercises organised for skill upgradation for our permanent workers for Hindalco India (Subsidiaries).*

Leadership Development Programmes

To propel organisational excellence, we have invested in several leadership development initiatives. Many of these development programmes are conducted at Gyanodaya- the Aditya Birla Global Centre for Leadership Learning. Apart from that, there are structured in-house training programmes and those conducted in partnership with external institutions or firms.

Under Gyanodaya, we offer training programmes such as Springboard, Chairman Series, Cutting Edge, Turning Point, and Step Up.

Apart from that, we also provide cadre building DNA programmes such as Employee Integration Programme (EIP), XSEED (Excellence in Skill Enhancement and Employee Development), Future Leader in You (FLY), Fit for Future by Design, GMP 2.0 Lead from Middle, GMP 2.0 Mines to Market, among others.

We have redesigned XSEED and FLY in alignment with ALERT and organisational requirements.

- **Fit for Future by Design** – Our bespoke development programme for high-potential talent, empowering them to become future CXOs. This immersive 15-month experience facilitates self-reflection, renewal, and transformation, guiding them to chart their next career milestones and assume leadership roles. A total of 13 employees have participated in the programme during the reporting period, with an impressive 5 already taking on critical bridge roles and 2 taking on their destination roles.
- **GMP 2.0 (Lead from Middle)** – Our programmes are designed to empower middle managers to be result-oriented, take initiative, demonstrate ownership and accountability, build external perspective, communicate effectively, manage people, and conflict. In FY 2023-24, 23 participants completed modules on self-leadership as well as team leadership and executive presence.

At Novelis, we have several Leadership Development Programmes such as Lead to Impact, Lead to Empower, Lead the Change, People Management, etc. Lead to Impact is 4-6 months learning journey for People Leaders of individual contributors, newly hired or recently promoted employees. The programme includes classroom training, skill assessment, a management simulation and self-paced e-learnings focused on upskilling leadership capabilities across all regions and locations. During the reporting period, we trained 150 leaders.

During the reporting period, we provided total training hours of 3,245,137 at Hindalco India operations.

Along with GVC and other e-learning programmes, the total training hours comprises 8,236 hours of training in risk management, 1,779,734.78 hours of safety training, 10,200.5 hours of human rights training, and 184,277 hours of sustainability trainings for India operations. 100% of employees and workers were provided trainings on various topics such as human rights, anti-corruption, code of conduct, occupational health and

safety-fire safety, work at height, ESG and sustainability, customer relationship management, corporate social responsibility etc. through e-learnings and physical sessions. A total of 163 and 38 training and awareness topics were covered for employees and workers respectively.

In addition, we conducted a total of 5 familiarisation programmes and other awareness sessions for the Board of Directors and key managerial personnel, covering topics such as overview of company landscape, investment opportunities in sustainability, revised board evaluation framework, statutory and non-statutory policies. 90% of the BoDs and KMPs were covered under the programmes and awareness sessions.

At Novelis, a total of 185,255 training hours were provided. The employees and workers were provided 623.7 hours of training in risk management, 33,148.85 hours of safety training, 6,227.49 hours of human rights training, 35,164.67 hours of sustainability and ESG trainings, and 110,090.68 hours on other topics such as e-learning, etc.

Nilesh Koul, CEO - Downstream Aluminium Business, at an interaction with his team

During FY 2023-24, we conducted an average 55.26 hours and 13.93 hours of training and development per Full-Time Equivalents (FTEs) for Hindalco India operations and Novelis respectively. We invested an average of ₹12,359.27 per FTE in training and development initiatives.

DETAIL OF TRAINING HOURS ARE PRESENTED IN THE TABLE BELOW:

Detail of Training Hours	Hindalco India *(Standalone)*			Hindalco India *(Subsidiaries)*			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Management and Staff	835,472	169,516	1,004,988	30,824	7,568	38,392	866,296	177,084	1,043,380
On-roll workmen	205,936	5,097	211,033	8,236	22	8,258	214,172	5,119	219,291
Total Training Hours	1,041,408	174,613	1,216,021	39,060	7,590	46,650	1,080,468	182,203	1,262,671
Average Training Hours per employee	50.05	183.42	55.88	38.75	92.56	42.80	49.52	176.21	55.26

In addition to above training hours at Hindalco India (Standalone and Subsidiaries) operations, we provided trainings on other topics which accounted for additional 1.98 million hours during FY 2023-24. This included trainings on risk management, safety, human rights, and sustainability.

Coaching Culture

We leverage International Coaching Federation (ICF) to develop a coaching culture within the organisation with a purpose to empower employees through knowledge and expertise transfer, driving performance improvement and fostering capability and career development. This initiative leverages the coaching passion and expertise of our executive leaders, who are trained as internal coaches, to promote accountability, capability, and measurable results. Under the programme, all the participants are mandated to complete 100 coaching hours for certification. Below are some of the programmes that foster coaching culture at Hindalco:

- **My People Hour (MPH) –** A one-hour monthly one-on-one meeting where leaders transfer implicit knowledge to their team members and focus on uncovering the unconscious decision-making processes within the team hierarchy. This is applicable to 100% of our employees and has helped us in achieving our commitment to maximising human potential, fostering better decision-making and improved outcomes.

In FY 2023-24, approximately 1,700+ MPH sessions have been conducted by our leaders to build capability in team members and 660 decisions were devolved through this process.

- **Empowerment by Design:** A shared leadership programme where leaders and team members collectively identify focus areas of capability and capacity building which provide a pathway to decision devolution. Decision devolution helps the employees to map decisions in 4 buckets: financial, people, systems/ process and strategic decisions.
- **Mentoring Programme –** Focussed on developing mentoring skills of business leaders to transfer their asset knowledge and skills to mentees. Launched during FY 2023-24 across all units of Copper business to recognise performance, behaviours, and values role models among employees and contractual workforce.

Technical Capability Building – Hindalco Technical University

Hindalco Technical University (HTU), which was established in 2017, is Hindalco's unique initiative to build the technical capability of our multi-dimensional workforce in mainstream manufacturing operations and maintenance roles across all plants and mines. Through this, we offer and deliver several online and offline knowledge and skill development programmes, support in-house technical summits and conferences, and drive a multitude of stakeholder technical forums.

Technical capability programmes are designed and delivered at 3 broad levels viz. customised programmes for the plants basis their specific needs, aggregate programmes at business level and finally central thematic signature programmes such as Six Sigma, Project Management, Reliability, etc.

To ensure relevance and impact, HTU has established the HTU schools of Smelter, Refinery, Power, Mining, Copper, Specialty Alumina and Maintenance tailored to the specific and dynamic needs of our entire manufacturing value chain. Each HTU School is overseen by an operating committee comprising representatives from the units, responsible for identifying appropriate technical capability training programmes while ensuring alignment with industry best practices and expertise.

In FY 2023-24, HTU designed and delivered more than 240 onsite and online technical programmes reaching out to more than 2,500 technical professionals across all our units. These programmes were delivered by several internal subject matter experts and external domain experts including select OEMs. The focus was to enhance existing knowledge, create awareness about technology innovations in Hindalco's manufacturing processes and also build specific skills which can be applied at the workplace immediately.

At HTU, we conducted a series of technical programmes for our employees with the objective of imparting technical skills and knowledge which included Electrical Safety training, Industrial Automation Learning Series, Electrical Protection System, CEA Certification Programme and other key programmes in the domain of Mechanical & Thermal Engineering. During the reporting year, we have conducted approximately 25 such programmes related to compliances and regulations at our units for our managers, engineers, and supervisors. A total of 1,069 employees participated in these energy-saving awareness workshops in mechanical, electrical, and thermal systems. These programmes aided in implementing energy savings initiative and resulted in cost savings.

In the reporting period, under HTU, we also initiated skill and knowledge building programmes for Workers/ Associate and Supervisors through various initiatives such as 'Chalo Renukoot' and 'E-Karyashala'.

E-Karyashala

We have launched E-Karyashala, an e-Learning mobile and web application for shopfloor operators and LMS employees. Under E-Karyashala, we offer 60+ technical modules covering upstream, downstream, copper, specialty alumina, mining operations, and general engineering and maintenance topics in English and vernacular languages. As of FY 2023-24, a total of 9,000+ users have registered and have completed 2,950 programmes. E-Karyashala is operational across 15 manufacturing units at Hindalco and is gradually being introduced to other businesses of the Aditya Birla Group.

In order to provide growth opportunities to our talent in the technical sphere, and reduce dependence on external parties, we have launched a unique initiative called "Technical Career Path" (TCP).

Technical Career Path (TCP)

Technology and technical expertise are vital to maintaining a competitive advantage in aluminium, copper, specialty alumina as well as mining and power.

The regular managerial career ladder may not cater to the requirements of such demanding roles. Keeping this in mind, we launched the Technical Career Path (TCP) to become a "Technically Self-Sufficient Organisation" by nurturing select individuals who wish to develop themselves as deep subject matter experts. In line with our EVP Framework, the objective of our programme is to attract, retain and develop technical specialists and define a career landscape for them.

Employees who have a flair for research and development and would like to pursue a career in research, are selected for the Technical Career path. It creates a defined career path for individuals to climb the ladder and become unit head.

Through the TCP initiative, we empower the selected participants to craft a development journey for themselves towards reaching the pinnace of domain expertise. It also helps us in creating internal intellectual property for Hindalco over the long run and also opens up new opportunities to innovate.

Outcomes:

- In over 2 years of our TCP journey, 88 subject matter experts have been onboarded into the TCP programme across various parts of the manufacturing value chain. In FY 2023-24, 45 employees were selected for TCP
- Technical specialists are also imparting technical training to colleagues under the aegis of HTU; 34 programmes delivered in FY 2023-24
- The pool of TCPians have presented 22 research papers at international and national conferences and received 3 awards
- During the reporting year, 19 patent were filed collectively. Out of 19, 14 patent were filed by involving TCPians
- Out of the total patent granted during the reporting year, TCPians were involved in 6 patent
- TCPians have created 28 e-modules on specific technical topics which are being used for training many employees across the Units

Our GETs were given 45 days safety and technical training through a combination of learning platforms i.e., classroom and shop floor immersion experience, as per HTU training schools curriculum. We provide 8 months on-the-job training with monthly review by Unit leadership.

We have also conducted Six Sigma Green Belt Certification programme for GETs, managers, upstream and downstream plant engineers covering around 525 O&M cohort of FTEs across downstream. As part of the programme, participants submitted 13 projects with potential savings of approximately ₹11.83 crore.

Under the newly launched HTU- School of Digital, we organised the following events in the FY 2023-24:

- Conducted trainings on Optimisation Techniques, Data Engineering, Data Storytelling, Decoding Analytics, Computer Networking, SQL, MS Project and Generative AI for specific cohorts as per the work profile of participants.
- Conducted 4 sessions for 900+ participants on Gen AI for HR and Operations with use cases.
- Conducted 6 DigiTalk with 1,500+ participants.
- Provided training on workplace productivity tools by internal subject matter experts to 400+ participants.
- Conducted a specific programme for Data Analytics using the ABG ATOMS platform in order to encourage usage of data and data-based value creation. A total of 5 batches were covered with 104 participants across plants.

Driving Digital Transformation

At Hindalco, digital adaptation has been a key focus area over the years. We have accelerated our digital capability building efforts in scale and scope across plants.

With an aim to achieve digital first thinking at the workplace, we conducted and implemented a series of programmes and initiatives aligned to the Plant Of The Future strategy.

These capability building efforts were directed towards manufacturing operations helped to achieve business outcomes in processes resulting into reduced Turn Around Time (TAT), process improvement, enhanced quality, optimised raw material consumption, etc. More details on digital transformation can be found in the Intellectual Capital section of this report.

In order to cultivate digital culture building, a series of initiatives and events have been launched such as DataFirst, DigiTalk, Humans of Digital, Embracing digital mindset and Data ki Duniya.

Humans of Digital

When Subhadeep joined the Renukoot Refinery 18 years ago, he could not have imagined the journey ahead. Renukoot, one of Asia's largest integrated primary producer of aluminium, was steeped in tradition. But Subhadeep had a vision.

In 2018, an organisation-wide digital transformation initiative was launched. Subhadeep, with his unwavering dedication and forward-thinking mindset, stepped up as the digital ambassador.

His motto, "When we keep the goal in sight, give our best, and don't give up, we get results!" became the driving force behind his every action.

The challenges were immense. However, through genuine intentions, transparent communication, Subhadeep slowly turned sceptics into believers. A major obstacle came with the implementation of an online Condition Health Monitoring (CHM) system. But the pilot project proved successful, paving the way for refinery-wide adoption. This was possible only due to the collaborative approach and support from the team.

Because of Subhadeep's efforts, Renukoot was able to win several awards such as 3SM, the Leadership Choice award, and Quality Circle awards, among others.

Subhadeep's story showcases what happens when we decide to lead from the front, persist, rise above traditional methods and embrace the new.

Subhadeep is a digital ambassador in Hindalco's digital transformation initiative

This year has also been a change year for our cohort of Digital Ambassadors who undertook the next level of capability building and also participated in delivering some parts of the Disha 2.0 programme. Another cohort of 12 participants was selected for the Data Science programme. The Data Science programme is a 6-month programme at GDNA, Bangalore. Post completion these participants have emerged as Data Scientists who would work in various digital projects across units. More details can be found in the Intellectual Capital section of the report.

In line with our efforts to create a digitally savvy talent pool, our employees have been provided trainings on leading edge technologies such as Artificial Reality (AR) and Virtual Reality (VR). In December 2023, we organised a structured 2-day AR/VR workshop at Gyanodaya wherein employees were given an overview of the AR/VR/MR ecosystem along with industry use cases. On 21 March 2024, we conducted Generative AI workshops for corporate HR with an aim to encourage employees to experiment with Gen AI tools in their work. A total of 42 participants were briefed on concepts of deep learning and NLP, ML, and AI.

Aditya Birla Group's e-learning school, Gyanodaya Virtual Campus, has more than 300 channels, 6,000 language courses, 2,000 online courses, 12,000 university-certified courses, 300 audiobooks, 1,200 e-books, 500 sustainability courses, and 350 leadership videos. During the reporting period, we provided 34,508 hours of e-learning to our employees at our India operations and 15,374.84 hours at Novelis.

Through our partnership with Coursera, we have been able to provide access to over 1,255 courses with close to 52,500 hours of training completed by our employees.

Through these trainings, employees across functions such as Digital, Marketing, Operations, Safety, Maintenance, Finance and Retail are encouraged to apply digital technologies in their daily work and develop innovative use cases.

Measuring the Effectiveness of Training

At Hindalco, we utilise the Kirkpatrick Model to rigorously evaluate the effectiveness of our training programmes, measuring outcomes across 4 key levers: Reaction, Learning, Behaviour, and Results. By employing this model, we can assess the impact of our training initiatives by tracking the progress from initial reactions to sustained behavioural changes and ultimately, tangible business outcomes. To track and record the effectiveness of the imparted technical trainings, we launched an in-house digital platform which captures the voices of participants and their managers.

LEVEL 1 REACTION	LEVEL 2 LEARNING	LEVEL 3 BEHAVIOUR	LEVEL 4 RESULTS
Immediate response on the training session	**Extent of understanding from the training**	**Measure behavioural change after learning**	**Degree to which targeted outcomes have been achieved**
We take feedbacks from the participants on relevance of training, presentation skills, and subject matter expertise of the facilitator among the other criteria.	We conduct pre- and post- assessment through different methods, such as writing a whitepaper, teaching colleagues, and reporting learnings to the training sponsor on the topics identified in the training.	Participants must complete action learning projects within stipulated timelines with multiple reviews before giving a final presentation to business heads.	Co-related with business impacts

Career Development and Succession

At Hindalco, we are deeply committed to nurturing the professional growth of our workforce. We encourage our employees to move across functions and geographies to enable them to broaden their skills. This also helps us design Leadership Pipeline Development Programmes. In this regard, we have undertaken several initiatives such as F10B10 strategy, Turning Point, Springboard, and Step up, among others.

F10B10 (First 10 Best 10)

With the focus to make the First 10 years @ABG professionally enriching and memorable, we have launched our F10B10 journey for employees. Our purpose is to provide them considerable opportunities to advance their skillset and career through cross-functional rotation. F10B10 is built on 2 frameworks: role rotation and development. High Potential Employees are provided varied job experiences through 3 job rotations in the first 10 years – 2 in their areas of specialisation and 1 cross-functional. The framework focuses on Functional, Timeless (Behavioural), and Contemporary skills development. Line managers are expected to continuously engage with their team members and actively anchor these transitions within their team and across ABG.

During the reporting period, we extended Hindalco's Continuing Education Policy (CEP) to 30 workmen. The objective of this programme is to incentivise employees and workers, keen on pursuing higher education to upgrade skills without hampering their productivity. Under HCEPW, workers can opt for online learning programmes, distance education, and correspondence programmes. We further provide 10 working days study/ exam leave per year, depending on the requirement of the course.

Succession planning is key to ensuring business continuity. At Hindalco, we have a well-structured plan to create an efficient talent pipeline by identifying and grooming potential leadership talent for crucial positions. This has helped us stay prepared to deal with any sudden employee departures or contingencies. With this strategy, we have also been able to define clear career paths and foster career advancement, while creating long-term viability for the organisation.

At Hindalco, we have a Group-level Succession Management Policy that enables us to identify and develop top talent for critical leadership roles. This strategic initiative allows us to recognise and develop people who are ready to take on key positions at present or within the next 1-2 years and 3-5 years.

External Associations and Accreditation

To better equip our new management level employees, we have collaborated with external educational partners and institutions such as Manipal GlobalNxt University, IIM Sambalpur, Systems and Networks Technologies Training Institute (SNTI), Nettur Technical Training Foundation (NTTF), ABP, Siemens, National Power Training Institute (NPTI), Central Tool Room and Training Centre (CTTC), BHEL, and BITS Pilani. We also engage with the subject matter experts from the industry to deliver knowledge sharing sessions to our employees. To provide exposure to a global market and cater to its specific challenges, we have tie-ups with international educational institutions such as Oxford University. In FY 2023-24, we initiated smelter certification programme for smelter frontline engineers in partnership with the University of Auckland.

In order to build capability of women employees to operate new age machines at our battery enclosure plant, we partnered with AKGEC Skills Foundation. We provided 2-months of customised training to 13 women junior engineers, completing 3,744 hours. The training curriculum encompassed key topics such as basic electrical, quality tools, PLC, CNC, Robotics and GD&T (Geometrical Dimensioning and Tolerance).

Employee Well-being

"To Develop Self-Driven Community to achieve Holistic Well-being for Everyone". This vision statement reflects our proactive approach to holistic well-being of our workforce through people-centric policies, processes, and systems.

Our wellness strategy is rooted in our Group's Employee Value Proposition (EVP) pillar- "Enrich Your Life", which promotes holistic wellness of employees and contract workers. Our wellness programme has 8 dimensions: Physical, Emotional, Financial, Social, Spiritual, Intellectual, Environmental, and Occupational. By addressing these interconnected aspects of well-being, we foster a sense of belonging and purpose in our people. We offer a range of benefits for healthy work-life balance, including sports, yoga, and grief counseling.

Hindalco offers several benefits to foster healthy work-life balance

During the year we undertook various initiatives as below:

Dimensions of Wellness

Emotional

Wellness Clinic Initiative – 50+ trained Hindalco Wellness Buddy; 60% of Wellness Buddies are from line

Wellness Circle organised by wellness buddies

1000+ covered through Wellness Calendar (virtual) and 800+ covered through Happy Healthy Minds (in-person)

Aha centre at Mahan unit

Stress Management through counselling services, yoga, mindfulness workshops, and employee assistance programmes

Self-care guide- 30-day self-care challenge

Psychological safety – 24*7 counselling helpline at no cost under Life

Financial

Financial literacy – sessions on topics like 'How to invest'

'Home budgeting,

'Savings for Financial Wellbeing', Income tax filing, etc.

Budget planning and management

Retirement and investment plans

Scholarship for children – 110 children of management cadre employees received under AWOO scholarships; 50+ employees through Pratibha scholarships in past 5 years

Unlimited initiative

Social

Employee Resource Group

Community outreach projects- with over 6,000 people participating in Diwali, flower festival, rang manch, etc.

Team building events

Friends at work

Occupational

Health and safety of employees and their family

Work-life balance- employee paid time offs and leaves

Programmes on gender diversity sensitisation, awareness sessions, Values month celebration, etc.

Psychological Safety Session

Outbound learning

Office ergonomics, desk zen, etc.

Intellectual

Hobby clubs

Reading clubs

Learning circles

Ideation and experiments

AI powered courses through the Gyanodaya Virtual Campus

Environmental

Awareness sessions and training programmes on various topics such as energy, emissions, waste, etc.

Plantation

Energy conservation drive

Ban on single use plastic

Physical

Fitness Programme such as exercise, yoga sessions, walk and talk, Zumba classes in township, gym facility, desk exercises at office, tournaments, marathons, etc

Sports infrastructure

Annual health check-ups, hospitals and health centres, body composition analysis camps, etc

Spiritual

Art of Living, Brahmakumaris and many other groups – sessions focused on meditation, yoga, mindfulness

Learning through mythology

Self-discovery

Celebrating festivals

We have renewed our OPD Insurance and Tele-Wellness Scheme 2023 – AALAMB to extend In-clinic OPD and tele-wellness scheme facility to new locations in downstream, Odisha cluster and Copper business. The scheme is applicable to employees and their families.

AALAMB has taken our benefit offerings to newer heights by covering Management and Staff cadre employees and their families with additional features, newer benefits and enhanced coverage. We have partnered with a leading insurance provider in India to provide the scheme benefits to our employees through Visit Healthcare, offering an AI driven platform.

Using the mobile app platform, our employees can access benefits such as unlimited on-call/chat doctor consultation, in-person doctor consultation and laboratory tests anywhere and at any time. The app offers access to 31,000+ doctors and 1500+ hospitals across 70+ cities.

Employee Benefit Policies and Programmes

Our purpose of Enriching Lives is embodied through a wide array of well-being programmes for our people across all locations. Here is a summary of the benefits:

TAKE TIME OFF – PAUSE AND REJUVENATE

- Parental leave
- Child adoption leave
- Medical leave
- Casual leave
- Miscarriage leave (as per Maternity Benefit Act)
- Sabbatical leave
- Privilege leave

INCLUSIVE AND EMPATHETIC WORKPLACE

- Health Insurance
- Accident Insurance
- Day care/creche facilities
- Accessible workplace for differently abled
- Mental, Emotional and Physical Wellness Support through Life Unlimited and more
- Eldercare Support
- Career management support
- Accompanied outstation travel for mothers
- Financial aid to family in the event of death of employees/workers
- Township programmes- Add More to Life (AMTL)

PROMOTING WORK-LIFE BALANCE

- Flexible working hours*
- Work-from-home arrangements*
- Part-time working options available to employees and workers such as work shift adjustment

** Provided to employees across all offices. The nature of the business make it necessary for people to be physically present to perform operational tasks. However, recognising the importance of maintaining work-life balance, we offer flexible work shift adjustments to accommodate the needs of employees and workers while maintaining operational efficiency and safety standards.*

MEASURES TAKEN FOR THE WELL-BEING OF EMPLOYEES AND WORKERS- HINDALCO INDIA *(Standalone)* **FOR FY 2023-24**

Category	Total (A)	% of employees covered by									
		Health Insurance		Accident Insurance		Maternity benefits		Paternity benefits		Day care facilities	
		Number (B)	% (B/A)	Number (C)	% (C/A)	Number (D)	% (D/A)	Number (E)	% (E/A)	Number (F)	% (F/A)
PERMANENT EMPLOYEES											
Male	8,104	8,104	100%	8,104	100%	-	-	8,104	100%	8,104	100%
Female	891	891	100%	891	100%	891	100%	-	-	891	100%
Total	**8,995**	**8,995**	**100%**	**8,995**	**100%**	**891**	**10%**	**8,104**	**90%**	**8,995**	**10%**
PERMANENT WORKERS											
Male	12,705	12,705	100%	12,705	100%	-	-	221	1.74%	12,705	100%
Female	61	61	100%	61	100%	61	100%	-	-	61	100%
Total	**12,766**	**12,766**	**100%**	**12,766**	**100%**	**61**	**0.48%**	**221**	**1.73%**	**12,766**	**100%**
OTHER THAN PERMANENT WORKERS											
Male	27,194	27,194	100%	27,194	100%	-		-	-	27,194	100%
Female	954	954	100%	954	100%	954	100%	-	-	954	100%
Total	**28,148**	**28,148**	**100%**	**28,148**	**100%**	**954**	**3.39%**	**-**	**-**	**28,148**	**100%**

Our parental leave policies promote gender equity and prioritise mental and physical well-being. Our female employees are entitled to 26 weeks of paid maternity leave with an option to extend the leave period using 60-days of privileged leaves. In addition to this, we also provide 5 days of additional childcare leave every year until the child is 2 years old. Male employees can avail a total of 5 paternity leaves. During the reporting period, 9,651 permanent employees were eligible for parental leaves while 337 took parental leaves for our Hindalco India operations.

We have institutionalised several initiatives to support new mothers through various stages of their journey. We reimburse pre-maternity local travel for female employees at corporate. We have a child travel policy where a woman can avail the facility to take her child and a caretaker on official trips. This facility is available until the child turns 2 years old and the accommodation and travel costs are borne by the Company. Recognising the importance of providing flexibility during a time of significant transition, we allow new mothers to work from home for up to 6 months in addition to existing maternity benefits. During FY 2023-24, we maintained a return-to-work rate of 97.76% and a retention rate of 99.66% at our Hindalco India operations.

At Hindalco India (Standalone), 221 permanent male and 61 permanent female workers were entitled to parental leave during FY 2023-24. Out of total permanent workers who are entitled to the benefit, 10 male and 13 female workers availed the benefit and all of them returned to work in the reporting period after parental leave ended. There was a 100% retention rate for both male and female.

DETAILS OF PARENTAL LEAVE FOR FY 2023-24

Particulars	Hindalco India *(Standalone)*			Hindalco India *(Subsidiaries)*		
	Male	Female	Total	Male	Female	Total
Total employees who took parental leave during FY 2023-24	293	16	309	27	1	28
Total number of employees who returned to work in the reporting period after parental leave ended	283	16	299	26	1	27
Total number of employees who returned to work after parental leave ended and are still employed 12 months after their return to work in FY 2023-24	282	16	298	26	1	27
Return to Work Rate*	96.59%	100%	96.76%	96.30%	100%	96.42%
Retention Rate#	99.65%	100%	99.66%	100%	100%	100%

** Return to work rate is the ratio of the total number of employees that returned to work after parental leave ended by the total number of employees due to return to work after parental leave ended.*
 # Retention rate is the ratio of employees retained 12 months after returning to work following parental leave by the total number of employees returning from parental leave in the previous reporting period.

Moreover, as applicable for the current and previous reporting year, 100% of our permanent employees and permanent workers were covered in retirement benefits such as PF, Gratuity and ESI. We extend life insurance coverage or any compensatory package in the event of death of employees or workers.

SPENDING ON MEASURES TOWARDS WELL-BEING OF EMPLOYEES AND WORKERS (INCLUDING PERMANENT AND OTHER THAN PERMANENT)- HINDALCO INDIA *(Standalone)*

	FY 2022-23	FY 2023-24
Cost incurred on well-being measures as a % of total revenue of the Company	0.09%	0.10%

Human Rights

As a global organisation with diverse operations in aluminium, copper, specialty alumina, and mining, we recognise the far-reaching effects of our activities on people across the value chain. As an outcome, we prioritise human rights within our sphere of influence, ensuring that we maintain our social license to operate, build trust with local communities, and be a force for good.

Our Approach

At Hindalco, we are dedicated to building a culture of dignity and respect that inspires and empowers all individuals, fostering a sense of belonging and pride. To achieve this, we have developed a comprehensive human rights framework which has 4-steps: creating awareness, assessing and evaluating human rights risk, developing mitigation plans, and monitoring progress periodically.

Developing Human Rights Culture

Capacity building on Human Rights through organised communication and education.

Human Rights Risk Assessment

Implement the HRDD tool and conduct self-evaluations as well as internal and external audits.

Monitoring and Reporting

Track and monitor periodic progress and conduct reviews of results

Strengthening the Engagement Strategy

Create strategies and action plans to address the improvement areas identified in the findings

Human Rights Policy Commitment

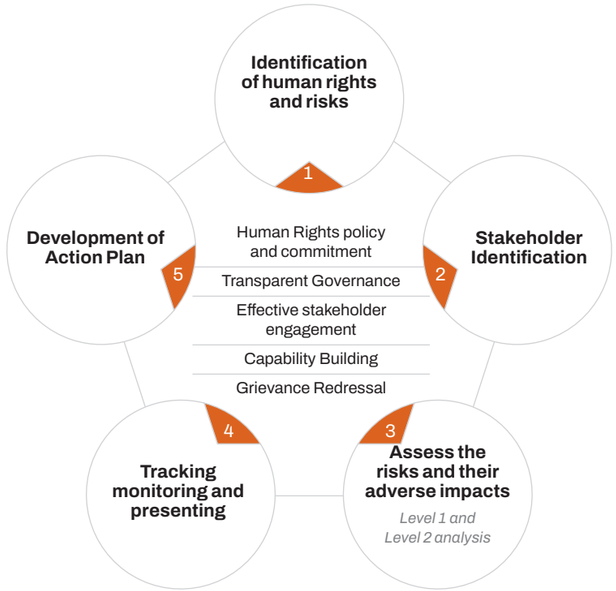
Our Board-approved Human Rights Policy delineates guiding action on upholding the fundamental human rights and interests of all our stakeholders. The policy covers employees, workers, contractors, suppliers, agencies, communities, and other stakeholders, as appropriate. We continuously interact with our business partners to support their efforts in respecting human rights, which includes sharing best practices, providing training resources, and offering guidance on implementing human rights policies. Guided by globally recognised standards and frameworks, our approach to human rights is comprehensive and multifaceted.

We are committed to upholding human rights principles, as enshrined in the Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the International Labour Organisation's Declaration on Fundamental Rights at Work, and the UN Global Compact.

In addition, we adhere to relevant Indian labour laws, including regulations on child labour, women migrant labour, and abolition of forced labour. We also ensure compliance with applicable laws in each country where we operate. Our CHRO is responsible for reviewing and addressing human rights related issues and impacts through representation at various committees to the Board.

Human Rights Due Diligence

With the objective of proactively and systematically identifying potential human rights impacts throughout the value chain, we have deployed a self-assessment Human Rights Due Diligence (HRDD) tool across Hindalco units. The HRDD covers a multitude of stakeholders including all employees, contractors and their workmen, security forces contractors, women, children, suppliers, migrant workers, community (including indigenous people), customers, and others as applicable.



Our HRDD Framework is a 5-step continuous process as depicted:

Identification of human rights and risks

Identification of all the fundamental human rights relevant to our industry. Basis this, we mapped potential risks that could occur in our operations and across the value chain.

We developed a comprehensive list of 'Salient Human Rights' issues such as child labour, forced labour, sexual harassment, workplace discrimination, human trafficking, freedom of association, right to collective bargaining, and wages.

Stakeholder Identification

Identification of internal and external stakeholders who may be affected by operations- employees, workers, contractors including security personnel contractors, suppliers, customers, and communities. We engage with stakeholders, including local communities, to understand their concerns and incorporate their feedback into our human rights strategies. This engagement helps us to build trust and ensures that our human rights initiatives are responsive to the needs of all stakeholders.

Risk Assessment- Conduct two-level analysis:

Level 1 Analysis: Identification of specific areas of concern through multi-level analysis — country, industry, ABG business, and plant/mine/office. This helps us to develop an appropriate action plan.

Level 2 Analysis: Assess whether preventive measures have been implemented, both by sites, suppliers, and contractors.

Track, Monitor and Present:

Utilisation of heatmaps to visually represent the likelihood of human rights abuses and potential consequences, enabling us to prioritise our efforts and allocate resources effectively.

Development of Action Plans:

Leverage visual insights to develop targeted action plans for addressing high-risk human rights areas, ensuring a proactive approach in mitigating potential abuses. We are developing detailed action plans to address Salient Human Rights risks identified with clear responsibilities, timelines and performance indicators assigned.

During FY 2023-24, we assessed 100% of our plants and offices on identified 'Salient Human Rights' issues. As part of the assessment, no significant risks related to human rights violations were identified, and thus, no remediation actions and business process modifications were required. We maintain a risk register across all our plants and mines, wherein we map human rights-related risks.

In addition to self-assessment, we have conducted third-party HRDD at Odisha cluster and Gare Palma Mines. The process involved a comprehensive review of policies, procedures, practices, and supply chain operations about human rights. We received positive feedback on the successful implementation of the HRDD Tool.

Hindalco provided 10,200.5 hours of human rights training to India employees during the reporting period

During the reporting period, 100% of our security personnel in India have undergone training on Human Rights policies and procedures. They were provided with 1,199 manhours of training on human rights-related aspects.

Human Rights Training and Capability Building

CHRO Talk – Human Rights Day: "At Hindalco, we recognise the importance of upholding human rights not just today, but every day. As we commemorate Human Rights Day, marking 75th anniversary of the Universal Declaration of Human Rights, we acknowledge that fostering a culture of respect, inclusivity, and equality is not just a moral imperative but a strategic advantage for Hindalco. Each of our employees and workers plays a crucial role as custodians of our vision for human rights within and across our organisation. This Human Rights Day, we reaffirm our commitment to creating an inclusive and supportive workplace where every voice is heard, and every person is valued."

Capability building and training are essential elements of our human rights strategy, aimed at equipping our key stakeholders with the knowledge and expertise necessary to enhance the human rights risk assessment process. We also provide more specific training programmes on human rights issues to relevant functions and locations.

During the reporting period, we provided 10,200.5 hours of human rights training to employees for India operations and 6,227.49 hours of trainings at Novelis.

The training covered various aspects such as POSH, code of conduct, supplier code of conduct, etc. Our Human Rights Policy is communicated to contracted personnel, underscoring our dedication to ethical standards and transparency throughout our supply chain operations. The unit-specific team interacts with private security on a need basis, including monitoring, auditing and assessing security forces. We continuously interact with private security personnel hired for providing security services, including sergeants, supervisors, and security guards, through regular capsule trainings/ briefings where we emphasised strict adherence to legal standards and regulations. Additionally, they receive trainings from their respective organisations as well. Various important subjects, including soft skills development, crowd management, conflict resolution, and maintenance of professional bearing, etc. are conducted every month.

DETAILS OF EMPLOYEES AND WORKERS WHO HAVE BEEN PROVIDED TRAINING ON HUMAN RIGHTS ISSUES AND POLICY(IES) - HINDALCO INDIA

Category	Hindalco India *(Standalone)*			Hindalco India *(Subsidiaries)*		
	Total	No. of employees / workers covered	% of employees / workers covered	Total	No. of employees / workers covered	% of employees / workers covered
EMPLOYEES						
Permanent Employees	8,995	1,586	17.63%	656	150	22.87%
Total Employees	8,995	1,586	17.63%	656	150	22.87%
WORKERS						
Permanent Workers	12,766	1,286	10.07%	434	55	12.67%
Other than permanent workers	28,148	3,034	10.78%	6,670	80	1.20%
Total workers	**40,914**	**4,320**	**10.56%**	**7,104**	**135**	**1.90%**

With an objective to efficiently disseminate knowledge and awareness about human rights within our organisation, we launched "Train the Trainer" programme in December 2023. We partnered with the Indian Society of Training and Development (ISTD) to conduct tailored training sessions across our units. Through this cascading training approach, a select group of employees underwent comprehensive training sessions to become trainers on essential topics. These include understanding adult learning and organisational goals, writing clear performance objectives, assessing learner performance, analysing course content, recognising individual learning styles, and establishing a positive learning environment. Those who were trained transferred their expertise to a diverse group of people, including miners, contract workers, security personnel, and even the families of employees living in our townships.

'Train the Trainers' comprises 10 units where trainers are shown how to plan sessions, create training objectives, use tools and learning resources, observe learning styles, analyse course content, and evaluate training outcomes.

In FY 2023-24, 25 employees were trained under this programme and were then tasked with training 200 other employees each. These trainers conducted awareness sessions for over 1,500 employees and the journey continues.

We assess the learner's performance to gauge how well learners acquired knowledge and skills during training. We have also encouraged our employees to undertake online training programmes on human rights.

Hindalco launched a 'Train the Trainer' programme to efficiently disseminate knowledge and awareness about human rights within the organisation

Celebrating Human Rights Week at Hindalco

We celebrated our first Human Rights Week from 10th – 16th December 2023 to raise awareness and promote human rights culture across all our plants. Every session started with each employee taking the Human Rights Oath – *To follow, preserve, protect and defend human rights meaning the rights relating to life, liberty, equality, and dignity of the individual guaranteed by the Constitution.*

We conducted a series of events including workshops, information sessions, and collaborative initiatives, emphasising our commitment to uphold fundamental rights and fostering an inclusive and equitable workplace culture. This celebration reaffirmed our dedication to respecting and protecting the dignity, freedom, and equality of every person, both within our organisation and in the broader community.

We also conducted awareness sessions across all our units covering behavioural training on POSH and Human Rights. Our Human Rights Week celebrations covered more than 1,000 employees. We aim to establish this as an annual medium for exchange of ideas.

A team from Hindalco was invited to an international conference to mark 75 years of the Universal Declaration of Human Rights, demonstrating our strong leadership in ESG. The theme of the conference was "Universal Values and National Realities: Exploring the Universal Declaration of Human Rights in the Indian Context".

Hindalco employees across plants, mines, corporate offices receive training on POSH

Grievance Mechanism and Remediation Procedures

We have implemented a robust Vigil Mechanism to facilitate timely and equitable resolution of grievances. Our Values Standard Committees, established at both the corporate and unit levels, provide a direct and accessible channel for employees and workers to report concerns or grievances in accordance with our Code of Conduct. A rigorous evaluation process ensures that all cases are thoroughly assessed, and quarterly reports are submitted to an independent auditor in compliance with SEBI regulations. Moreover, employee performance is closely linked to adherence to the Code of Conduct, with potential consequences including disciplinary action for failure to comply which may include even termination from the organisation. The value committee governs this on a case-to-case basis. This comprehensive approach reflects our dedication to upholding the highest standards of integrity and ethical behaviour.

Our Whistleblower Policy outlines a well-defined grievance redressal mechanism wherein employees can register their complaints while maintaining anonymity. We continuously monitor human rights risks in our operations, take corrective actions in case of any violations and follow a policy of no retaliation. We have a compliance tool to track human rights regulations and ensure adherence to compliance. During FY 2023-24, we received 10 complaints on sexual harassment with 4 cases pending for resolution and zero cases of discrimination. All 10 complaints were upheld. All the cases were received from female employees and workers i.e., 0.52% of female employees or workers. In FY 2022-23, we received 9 complaints of sexual harassment from women employees and workers i.e., 0.34%, with zero cases pending for resolution and all the 9 complaints were upheld. During the reporting period, we received zero complaints of child labour, forced labour, or wages. There were no breaches to the code of conduct by our workforce, in terms of conflict of interest, corruption & bribery and insider trading.

We are dedicated to safeguarding the rights of the indigenous people living near our facilities. To demonstrate this commitment, we have established a comprehensive policy for the Rehabilitation, Resettlement, and Protection of Indigenous People.

This policy underscores our pledge to protect the rights of indigenous community and address any concerns they may have. During FY 2023-24, we registered zero grievances related to violations affecting the indigenous communities.

To protect the interests of our employees and workers, we encourage collective bargaining and freedom of association. At Hindalco, 57.77% of our total workers are covered under collective bargaining agreements during FY 2023-24. 100% of our permanent workers were covered under the collective bargaining agreement for FY 2023-24 and FY 2022-23. As a part of effective communication between management and employees, we provide a minimum notice period of 60-90 days to employees and 21 days to workers in an event of changes in operations as per Section-9 of the Industrial Disputes Act, 1947.

As our operations span across numerous local and international regions, we ensure that our employees receive compensation exceeding the minimum wage requirements, in compliance with regional regulations.

At Hindalco India (Standalone), all our permanent employees, permanent workers were paid more than the minimum wage as per State Government notifications, applicable to respective locations during FY 2023-24, whereas 72.09% and 27.91% of other than permanent workers were paid more than minimum wages and equal to minimum wages respectively. In FY 2022-23, all our permanent employees and permanent workers were paid more than minimum wage as per State Government notifications, whereas 70% of other than permanent workers were paid equal to minimum wage and 30% were paid more than minimum wage, applicable to respective locations.

Hindalco's framework for managing occupational health and safety is overseen by the Company's Apex Safety Board

Occupational Health and Safety

At Hindalco, we foster an environment where the well-being and safety of our workforce and community are of utmost importance.

Under the aegis of our Safety and Occupational Health Policy, we have established health and safety management systems that are aligned with international standards including International Finance Corporation's (IFC) General Environment, Health and Safety Principles, International Labour Organisation's (ILO) guidelines and recommendations from the World Health Organisation. We comply with all the applicable legal requirements across all our operating plants and mines. At Hindalco, all of our manufacturing plants, mines and corporate functions (except 1 mine and 1 plant which was established in FY 2023-24) are certified with ISO 45001 – Occupational Health and Safety Management System. This certification has enabled us to optimise our operational performance and ensure a safer and more efficient working environment.

To provide a safe work environment through our Sustainable Business Framework, we have defined short, medium, and long-term goals and targets, as depicted below. We continuously monitor the progress and its impact on the well-being of our employees and contract workforce.

Short-term
(Current year)

- Zero Fatality
- LTIFR less than 0.25
- TRIFR less than 0.70
- LTISR less than 75

Medium-term
(Next 2-3 years)

Shift from independent culture to interdependent culture on Bradley's curve

Long-term
(Beyond 3 years)

Attaining the position of a safety torchbearer holding No. 1 rank in safety in metal industry globally

Occupational Health and Safety Governance

We have set up an Integrated Committee Structure and Governance, where task forces and sub-committees work together to elevate safety standards across our manufacturing and mining units. These task force and sub-committees comprise experienced employees from the safety line function.

At Hindalco, safety is a top-driven approach. Our robust framework for managing occupational health and safety comes under the oversight of the Apex Safety Board which is chaired by the Managing Director and comprises business heads who directly report to him. This committee convenes every month to review the safety performance of plants and mines.

Hindalco's occupational health and safety management governance framework

- Apex Safety Board
  - Corporate Safety Department
- Unit Safety Board
  - Unit Safety Department
  - Standard Implementation Sub-committee
    - Task Force for Implementation of Safety Standards
  - Contractors Safety Management
  - Behaviour-based Safety Committee
  - Safety Audit and Assurance Committee
  - Safety Training Sub-committee
  - Incident Investigation Sub-committee

At plants and mines, we have established unit safety boards, chaired by the unit heads. Under each unit safety board, there are 6 sub-committees — Safety Standard Implementation sub-committee, Incident Investigation sub-committee, Safety Audit and Assurance sub-committee, Safety Training sub-committee, Behaviour Based sub-committee and Contractors Safety Management sub-committee. Under the standard implementation sub-committee, several task forces have been formed. Each task force is responsible for implementing one safety standard.

All the 6 sub-committees and task forces are responsible for driving safety procedures and enhancing the safety standards through awareness trainings, audits, risk mitigation, system and procedure building as well as developing various engineering controls. The performance of these task forces and sub-committees are reviewed at monthly meetings by the Unit Apex Safety Board, chaired by Unit head.

Hindalco's emotional first aiders are a great first point of contact for employees looking for support in times of stress

Establishing a robust top-down occupational health and safety governance has promoted a forward-thinking safety culture. It has further developed a communication channel between line managers and top management to drive the safety standards collectively. Over time, we have been able to achieve the following through our safety culture:

Benefits Achieved through Timely OHS Management

- **Involvement of 3,100+ line function personnel in driving safety**
- **Trained Subject Matter Experts (SMEs) for safety in their domain**
- **SMEs creating and customising internal technical standards to maintain safety practices**
- **Building a culture of "Train the Trainer" to foster development of line function personnel**

Hazard Identification and Risk Assessment

We have a thorough and systematic approach to identify and mitigate potential hazards at workplace. Before commencing any activity or work, each site conducts a rigorous Hazard Identification and Risk Assessment (HIRA) process, utilising structured tools such as Job Safety Analysis (JSA) and Hazard and Operability studies (HAZOP). This comprehensive assessment evaluates the risk level of each hazard, enabling us to accurately assess the potential threat of an occurring hazard for all routine and non-routine activities. By taking a proactive and structured approach to risk assessment, we ensure that our operations are safe, efficient, and aligned with industry best practices.

By leveraging digital tools and technologies, we monitor our safety performance to ensure timely mitigation of risks. Our ENABLON software ensures efficient management of safety data and helps us in making informed decisions. We have implemented digital tools such as Contractor Safety Management Module (CSM), safety audit, e-Permit, e-MOC, Tap-Root cause analysis, among others. All high potential incidents and accidents are investigated and analysed using Tap-Root cause analysis method and software.

We have deployed technologies for robotic cleaning of confined and hard to access spaces, online remote gas monitoring for confined spaces, drone monitoring for all types of work-at-height jobs, CCTV monitoring, Journey Risk Management (JRM) application used for long-distance travel, among others. Such efforts have helped streamline our OHS management process and support our philosophy of Hierarchy of Controlling Risks through 6 approaches: Elimination, Substitution, Isolation, Engineering Control, Administrative Control, and Personal Protective Equipment.

In order to identify strengths and areas of improvement in the existing safety programme and develop future plan with a goal of Zero harm, we conduct annual internal safety audits. We have a dedicated team which carries out internal audits, led by business heads or cluster heads. The audit has 3 levels: Level 1 audit (self-assessment audit by facility, area, and department), Level 2 audit (cross functions audit conducted through subject matter experts), and Level 3 audit (facilitated by corporate team led by business heads). Subject matter experts are identified from different safety standard implementation task forces. Through this rigorous process, we have fostered a culture of transparency and accountability, driving positive change across our operations.

At Hindalco, we have emergency plan for our manufacturing plants, mines and corporate offices. Under this plan, we have identified emergency scenarios pertaining to the processes and offices and conducted mock drills involving all our employees, workmen and senior management. We also have crisis management plan which addresses safety issues beyond emergency situations.

During the reporting period, 100% of our plants and offices have been assessed on health and safety requirements and working conditions.

At Novelis, we have implemented machine guarding assessments to enhance the safety conditions in work centres that involve operator hazards. The primary goal of this initiative was to create a specialised inspection team and carry out a thorough physical examination of machine safeguards on all process equipment in specific facilities.

We encourage our employees and workers to report safety incidents on a regular basis. During the reporting period, there were zero complaints received from employes and workers on health and safety and working conditions at our Hindalco India operation.

DETAILS OF SAFETY PERFORMANCE DURING FY 2023-24

Employees | Contractual Workers

Category	Hindalco India (Standalone)		Hindalco India (Subsidiaries)		Novelis		Total	
	Employees	Contractual Workers	Employees	Contractual Workers	Employees	Contractual Workers	Employees	Contractual Workers
Lost Time Injuries/ Nonfatal, Days Lost (NFDL) cases *(Number)*	14	16	0	1	21	7	35	24
Total Recordable Injuries *(Number)*	39	60	0	3	68	23	107	86
Fatalities *(Number)*	0	1	0	0	0	0	0	1
No. of high-consequence work-related injuries (excluding fatalities) *(Number)*	2	1	0	0	3	0	5	1
Total man-hours worked *(Million hours)*	45.71	84.44	0.2	0.99	31.70	6.97	77.61	92.4
Lost-Time Injury Rate (LTIR)(ii) *(Number/person hours worked)*	0.06	0.04	0	0.20	0.13	0.2	0.09	0.052
Lost Time Injury Frequency Rate (LTIFR)(i) *(Number/million hours)*	0.31	0.19	0	1.005	0.662	1.003	0.45	0.26
Total Recordable Injury Frequency Rate (TRIFR)(iii) *(Number/million hours)*	0.85	0.71	0	3.01	2.14	3.29	1.38	0.93

Note: (i) Lost-Time Injury Frequency Rate (LTIFR) = (No. of lost-time injuries x 1,000,000) / (person-hours worked)
(ii) Lost-Time Injury Rate (LTIR) = (No. of lost-time injuries x 200,000)/ (person-hours worked)
(iii) Total Recordable Injury Frequency Rate (TRIFR) = (Total No. of recordable injuries x 1,000,000) / (person-hours worked)

For our Hindalco India (Standalone) operations in the previous reporting period (FY 2022-23), the LTIFR for our employees and contractual workers was 0.33 and 0.22, respectively. The total recordable work-related injuries stood at 49 and 42 for our employees and contractual workers, respectively in FY 2022-23. Furthermore, 2 of our contractual workers suffered fatalities in FY 2022-23. There were zero cases of high-consequence work-related injuries (excluding fatalities).

Occupational Health Services

At Hindalco, we are committed to safeguarding the well-being of our employees and workers by implementing a comprehensive Health and Wellness Programme. Leveraging our proprietary PEHEL software (an in-house Health and Medical management software developed by ABG), we are transforming data management, streamlining periodic medical examinations, and enhancing emergency medical response capabilities. This technology empowers us to deliver personalised awareness training, and self-care guides across our operations.

Under the guidance of our senior line managers, we have instituted the 'Integrated Health Committee' (IHC) at each operation. The IHC comprises a diverse group of experts including chief medical officers, industrial health physicians, certified industrial hygienists, and other key stakeholders. The IHC convenes monthly to review operations and developments in industrial health and hygiene, ensuring a proactive approach to risk management. Each unit has an inclusive Occupational Health Centre (OHC) is run by highly qualified industrial health physicians and trained medical and paramedical personnel.

Our health ecosystem includes hospitals, occupational health centres, and numerous Outpatient Departments (OPDs) with dedicated ambulances and specialised services, such as maternity and paediatric care. We have multi-specialty hospitals offering MRI, transplant facilities and Occupational Therapy (OTs). We conduct regular preventive health camps, blood donation camps, Diet and Nutrition Awareness camp, etc. to ensure the proactive well-being of our employees and their families. Most of the units which are larger in size and located in remote areas are present with occupational health centres. We provide various health well-being benefits to our employees and workers. 100% our employees and workers are provided with the benefit of health insurance and accident insurance.

Health and Safety Initiatives

Guided by the International Labour Organisation's (ILO) Convention 161, we pioneer a holistic approach to occupational health by conducting rigorous Qualitative Exposure Assessments (QEA) and Quantitative Exposure Assessments (QnEA) to identify potential hazards affecting the physical and mental well-being of our employees. Building on the insights gleaned from these assessments, we execute programmes and develop tailored sampling and monitoring protocols to mitigate risks and ensure a safe and healthy working environment.

Hindalco's force of 'Emotional First Aiders'

We launched Wellness Clinics in 2023 to address the emotional well-being needs of our employees. More than 50 trained wellness buddies were identified.

They are Emotional First Aiders, facilitators and the first line of defense against employee disengagement and distress. During the year, the Wellness Buddies conducted Wellness Circles, with up to 20 employees per circle, to help employees cope with stress and keep them engaged. Our units in Silvassa, Utkal, Hirakud, and Belagavi conducted a Wellness Circle on 'Digital Detox' to make people aware of the harm caused by the excessive usage of digital devices. Across our facilities, workmen, contract employees, immediate family members and communities have participated in this initiative.

To mitigate the risks associated with heat stress in the potrooms and smelters, we provide a consistent supply of nutritious food and fluids to our workforce. Our innovative "Sattu Sharbat" initiative, launched during periods of high temperatures, encourages our employees to take regular stretch breaks and prioritise hydration. By proactively addressing these challenges, we foster a culture of safety and wellness that enables our workmen to thrive in their roles.

At Hindalco, we provide regular health and safety trainings and awareness sessions. 100% of our permanent employees and workers were provided trainings on health and safety measures during FY 2023-24. We also provide reward and recognitions for best Behavioural-Based Safety observation, safety interventions with respect to fire reporting, near miss reporting, unsafe act and unsafe conditions. We recognise the efforts of Subject Matter Experts and Task Forces for best safety implementations.

To raise workplace risk awareness among shopfloor employees globally, our EHS team at Novelis collaborated with the regional EHS team from North America to develop and deliver a 4-hour, face-to-face training programme on hazard and risk awareness. As a result, employees are now equipped to detect and report hazards with confidence, significantly reducing the risk of untoward incidents. During the year, over 900 employees were trained on safety rules such as hand safety, critical behaviours, and shop floor exercises to help in the identification of hazards.

Global safety week at Novelis

At Novelis, we celebrated a 4-day Global Safety Week to make employees more aware on high-risk activities. Aimed at promoting employee engagement and reducing EHS incidents, our EHS team determined key focus safety areas: Hand Safety, Mobile Equipment and Pedestrian Safety (MEPS) and Upset Conditions. We also provided global safety promotional resources and materials to our employees such as Voice of the Employee videos, Employee Safety Video Contest, online games, posters, toolbox talks, banners, safety moments, manager's talking points, recorded best practice sharing videos, leadership support videos, health, and wellness day topics (Better Sleep Management and Cancer Prevention) and social media promotions.

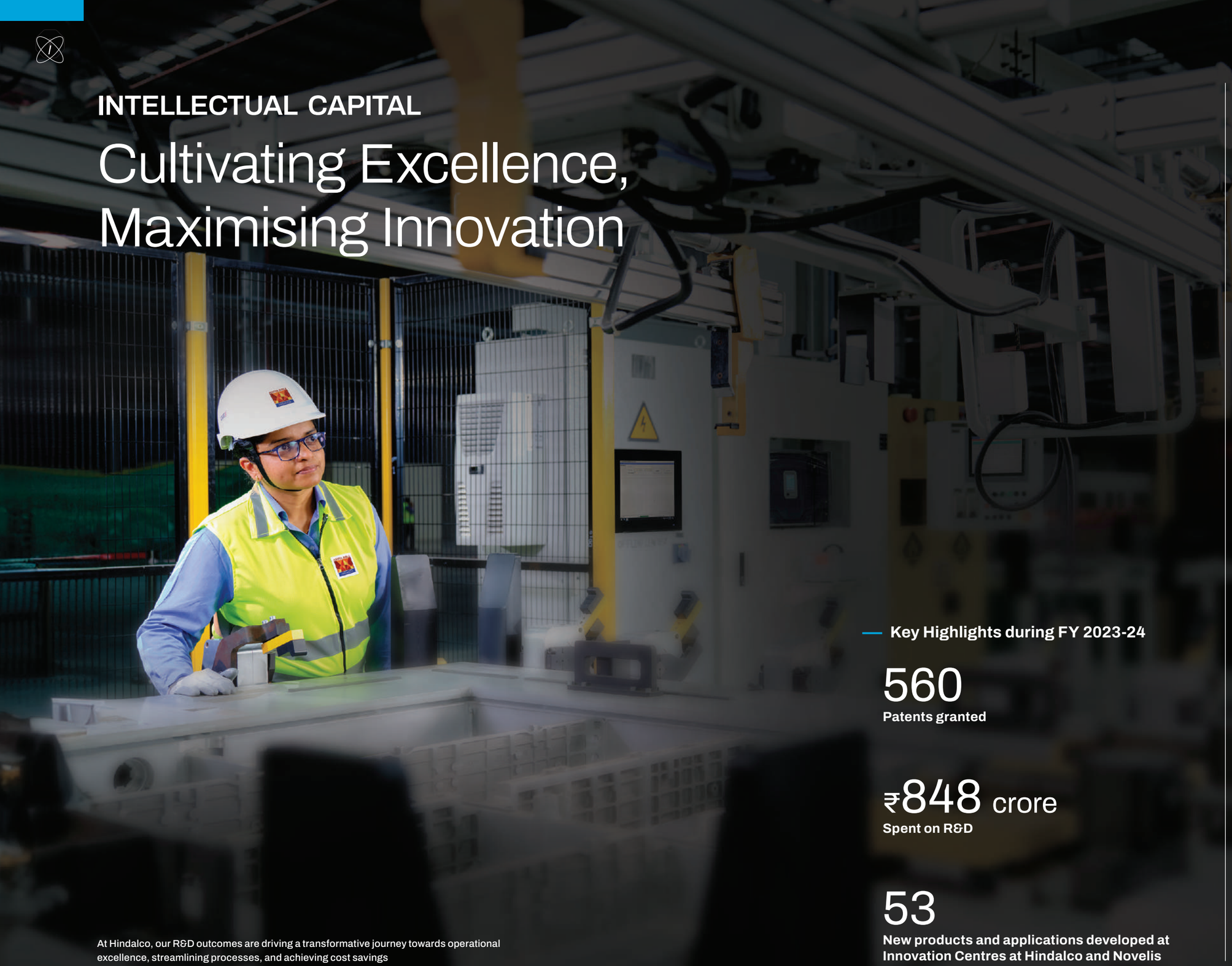
We encourage our employees to create an experience that reflects their needs and celebrates their Culture of Safety. To support this effort, we undertook several initiatives such as safety interactive theater, fork truck competitions, emergency response drills, office ergonomics demonstrations, family day, health screenings, firefighting demonstrations, virtual reality safety trainings, and safety trivia games. Below are the highlights of the initiatives:

- 6 global articles on *Inside Novelis*
- 4 online safety trivia games with 2,152 participants
- 52 safety video submissions and 4 regional winners
- 1 global safety video winner

This initiative helped us improve safety communication, develop safety risk assessment, and empowered our employees through positive reinforcement and recognition of successes.

SAFETY TRAININGS PROVIDED DURING FY 2023-24:

Safety Training Category	Unit	Hindalco India *(Standalone)*	Hindalco India *(Subsidiaries)*	Novelis	Total
Management and Staff	Hours	234,640	151,965	39,277	425,882
Permanent Workmen	Hours	431,159	5,711	10,988	447,858
Contractual Employees	Hours	1,012,055	80,971	3,381	1,096,407



INTELLECTUAL CAPITAL

Cultivating Excellence, Maximising Innovation

At Hindalco, our R&D outcomes are driving a transformative journey towards operational excellence, streamlining processes, and achieving cost savings

Key Highlights during FY 2023-24

560
Patents granted

₹848 crore
Spent on R&D

53
New products and applications developed at Innovation Centres at Hindalco and Novelis

Capital Linkages

- M — Manufactured Capital
- F — Financial Capital
- N — Natural Capital

Strategic Priorities

- SP-2 — Value Enhancing Growth
- SP-3 — Strong ESG Commitment
- SP-4 — Portfolio Enrichment

Material Topics

- M4 — Market Presence

Key Risks and Opportunities

- R3 — Cybersecurity and data protection risks
- R10 — Product development strategy risks

SDG Linkages

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Against the backdrop of a rapidly evolving industrial landscape, the adoption of smart technologies will have a greater impact in creating new markets and opportunities. At Hindalco, our innovation-led vision propels us to push boundaries and develop products that improve lives, thus making us a **force for good.**

We harness the power of intellectual capital to drive breakthroughs and transform our industry. By fostering a culture of innovation across our operations, we unlock the full potential of our diverse and talented workforce.

Our team of scientists, researchers and experts are dedicated to advancing the frontiers of technology in aluminium manufacturing, copper smelting, and alumina. Their expertise ensures that our organisation remains at the forefront of innovation. We safeguard our intellectual property through patents and trademarks, securing recognition for our pioneering achievements in the market.

Collaboration is the cornerstone of our innovation strategy, enabling us to leverage synergies and create solutions that drive exponential growth and profitability. By forging strategic partnerships with industry leaders, academia, and research institutions, we unlock new revenue streams, optimise resource allocation, enhance innovation capabilities, and create a competitive advantage across user industries.

With innovation at the core, we aim to drive positive changes through the development of sustainable solutions and environment-friendly technologies on Reduction, Recycling and Rehabilitation. Such efforts nurture a culture of sustainability that benefits our organisation and the wider community.

Focus Areas

- Δ Strengthening R&D for Downstream Products
- Δ Product Quality and Performance
- Δ New Technological Solutions
- Δ Digitalisation

Hindalco's researchers and scientists are focussed on developing sustainable processes and value-added products

Strengthening R&D for Downstream Products Δ

Unleashing Innovation Through Research and Development

Hindalco's commitment to innovation and excellence is reflected through our robust Research and Development (R&D) efforts, spearheaded by a diverse set of scientists, researchers and experts. They are dedicated towards fostering innovation across our businesses.

We have a network of modern Hindalco Innovation Centres (referred to as HIC) at Belagavi, Taloja, and Dahej. Our Belagavi and Taloja facilities, recognised by the Department of Scientific and Industrial Research (DSIR), are the epicentre of our innovation efforts.

All our plants have in-house R&D centres and specialised technical cells which further strengthen Hindalco's dedication to continuous innovation. During the reporting year, HIC teams increased their focus on developing sustainable processes and value-added products. Our total R&D spending was at ₹848 crore in the reporting year. Out of this, ₹33 crore was earmarked for Hindalco India (Standalone) operations, and we spent another ₹24 crore for research towards environmental initiatives such as waste management and energy reduction.

At Dahej, our HIC Copper has been focusing on initiatives to improve the copper cathode and anode quality as well as technology development for battery grade $NiSO_4$. HIC Tribology and HIC Semi-Fab at Taloja along with HIC Alumina at Belagavi have propelled technological advancements, leading breakthroughs in product quality and process efficiency. Across our operations, HICs have developed blend advisers and soft sensors which have significantly enhanced smelter productivity and product quality.

During the fiscal year, HICs collectively filed for 19 patents and were granted 12 patents, enhancing our position as a pioneer in the industry.

We continued our research efforts towards improving processes and exploring new technologies to ensure a more efficient, environmentally responsible, and innovative approach to aluminium smelting. The focus is also on advancing carbon anode technology and optimising production through the integration of cutting-edge process control and automation systems. The proposal to set up the booster section trial for HiPoT-400 kA design at Mahan smelter was approved by our management.

At Novelis, we are committed towards driving innovation and expanding our global product portfolio through cutting-edge research and technology. Our 11 world-class innovation centres, located across North America, South America, Europe, and Asia, are dedicated to accelerating advancements in product development and technology.

Our flagship research and technology centre in Kennesaw, Georgia, is a hub of innovation for the automotive, beverage, and specialty markets, leveraging our expertise to develop groundbreaking solutions. In Spokane, Washington, our global casting engineering and technology centre is a leading authority on molten metal processing, producing high-quality aluminium products that set the industry standard.

Meanwhile, our centres in Shanghai, China, and Sierre, Switzerland, are focused on automotive research, while our Göttingen, Germany-based facility specialises in product and process development for can and specialty customers. Further, we have customer solution centres for automotive and beverage packaging in Detroit, Michigan and São José dos Campos, Brazil respectively. We have established a research and development laboratory to advance Net Zero solutions for aluminium manufacturing in Sierre, Switzerland. For the aerospace industry, our innovation centres in Koblenz, Germany, and Zhenjiang, China, are dedicated to advancing research in this critical field.

To further enhance partnerships with our automotive customers, we have established a dedicated automotive customer solution centre in Novi, Michigan. This centre is equipped to provide tailored solutions that meet the specific needs of our customers. In FY 2023-24, we filed 292 patent applications and were granted 548 patents.[8]

At Novelis, we are committed to driving a sustainable future through our R&D strategies. Our focus is on developing innovative solutions that increase the recycled content of our alloys, reduce the carbon footprint of our processes and products, and leverage AI and machine learning to drive product and process innovation. This shall be handheld through coordinated efforts across many parts of our business, including scrap sourcing, investment in our recycling operations, and alloy selection and mix optimisation.

[8] *The number of patents granted during the reporting year, this includes patents filed in previous years.*

Our focus is on designing and developing new alloys, and processes for manufacturing them to allow for absorption of a higher level of recycled content. We also focus on can-end design optimisation which allows the use of alternative alloys which have different mechanical properties compared to the incumbent, lower recycled content alloys. By supporting the decarbonisation of primary aluminium, we aim to make a significant impact on the industry's environmental footprint and position ourselves as a leading player in the transition to a low-carbon economy.

At Novelis, we held an industry workshop on Innovation and Sustainability for Beverage Cans at Beverage Packaging CSC NSA. We also received the 2023 PDMA Outstanding Corporate Innovator Award from the Product Development Management Association. By prioritising innovation and leveraging our extensive R&D network, Novelis continues to lead in developing sustainable and advanced aluminium solutions for diverse industries globally.

Product Quality and Performance

Optimising our Processes

At Hindalco, our R&D outcomes are driving a transformative journey towards operational excellence, streamlining processes, and achieving cost savings. By harnessing the power of cutting-edge innovation, we are augmenting our processes to deliver superior product quality, performance, and value to our customers.

To ensure the highest standards of quality, we have implemented a comprehensive Life Cycle Assessment (LCA) programme across our downstream and refinery plants. This rigorous approach enables us to identify and mitigate environmental impact areas throughout a product's lifespan, ensuring that our products meet the highest standards of sustainability and performance.

In FY 2023-24, we successfully conducted LCA for our downstream aluminium manufacturing products at 4 plants– Renukoot, Alupuram, Kuppam, and Belur. Building on these findings, we are now developing actionable plans to drive continuous improvement. Furthermore, we have initiated LCA for our copper manufacturing products at Dahej, underscoring our commitment to sustainable operations and customer-centric excellence.

Breaking energy barrier: Achieving benchmark specific energy through new cell design at Aditya Aluminium.

To reduce the specific energy, a new copper-inserted collector bar was developed by ABSTC and our team at Hindalco. The initiative incorporated an augmented mass of copper in the collector bar, a modified design of a preformed side wall block, and a better insulating material in the cell lining. The new design aided us in decreasing energy consumption at the existing line current in the pilot cells and is also expected to perform at a higher amperage while sustaining the thermal balance at low internal heat. This offers a greater cell cavity which means a better process condition due to increased bath volume. The pilot cells have helped us to achieve benchmark specific energy of about 12,900 DC-kWh/MT.

Hindalco's plants have in-house R&D centres and technical cells to strengthen focus on innovation

Sustainable Solutions: Modernisation of pot control system at Hirakud smelter

ABSTC and our team at Hindalco developed a new PLC-based pot control system for our Hirakud 85 kA pots during FY 2021-22 and a successful trial was conducted in a few pots. Subsequently, a phase-wise implementation in 75 pots was carried out in Line-3 and 4. The new control system was further customised for trial in another potline at our Hirakud operations, operating at 235 kA. In FY 2023-24, we further upgraded the control logics with a new Al_2O_3 feeding, automatic voltage control, and instability control. Additionally, the reporting and visualisation system was improved for better decision-making. As a result, the Anode Effect Frequency (AEF) has reduced by 0.40 per pot/day in Hirakud 85 kA potline.

Enhancing anode quality and oxygen control in copper refinery

We focus on improving anode quality and optimising oxygen levels in copper refining to enhance efficiency and reduce losses. We address key aspects such as anode quality improvement by optimising oxygen content within the range of 1,000-1,500 pm to minimise anode passivation and ensure uniform dissolution during electrorefining. Our furnace operation is made sustainable through measures such as launder covers, coke beds, and nitrogen introduction to control oxygen levels, thereby lowering reduction time. This approach provides several advantages, including reduced consumption of gas, lower emissions and acid loss which further allow us to reduce costs. By accurately regulating the oxygen levels in our copper blocks, we prevent blockages and leakage, which enhances the efficiency of our process.

Aluminium foil for Li-ion battery current collectors

Optimising extrusion process for control on Peripheral Coarse Grains

We continually advance the product quality standards by improving the processes. Direct extrusion has inherent variations in metal flow, flow rate and temperature both along the length and across the diameter of extrudate. Optimised process parameters for strong Peripheral Coarse Grain (PCG) control in AA2xxx extruded profiles, in single and 2 cavity rods, were developed through a combination of modifications in chemical composition, die-designs, homogenisation and extrusion parameters. We have achieved no PCG on edges and reduced PCG on the corners of rectangular profiles by extending the learnings from the single impression rods, for these alloys. The PCG control in these products has raised the bar on the metrics for product quality.

Enhancing Aluminium Foil for Li-ion Battery Current Collectors

In response to the growing demand for high-performance Li-ion batteries (LIBs) across various industries, we are developing aluminium foil with improved strength and conductivity properties for use as current collectors in LIBs. Our target is to become one of the preferred battery foil suppliers in domestic and international markets.

Aluminium alloy foils strengthen the coating of active materials on the cathodes of LIBs. To enhance the performance of these foils, we modified the material chemistry to improve the strength of these foils during the cold rolling process. We also optimised the rolling process parameters and intermediate heat treatment processes.

Through these efforts, we achieved significant benefits such as improved mechanical properties through the development of HIL1X-HS and HIL1X-HC alloys. These advancements allowed for the qualification of foils for current collector applications in LIBs, positioning us as a leading player in providing high-quality battery foils with best-in-market properties. During the year, this initiative yielded tangible outcomes, contributing to continuous improvement and innovation in battery technology.

New Technological Solutions

Developing New Products and Applications

Our Innovation Centres spearhead the development of cutting-edge solutions to address the evolving needs of the market. As a testament to our commitment to innovation, we have created High Crystalline Alumina (HCA Series Alumina) for electro-ceramic applications and Sub-micron Alumina (SMA Series Alumina) for high-value refractory applications. We have also pioneered the recycling of gypsum sludge from our Effluent Treatment Plant which resulted in reduced CO_2 emissions and helped us recover metal.

In the reporting year, we successfully developed 45 new products and applications at our HICs.

We developed BB59 alloy-grade sheets that exhibit high wire bond strength and corrosion resistance, specifically for busbar applications in EVs. We used a hybrid manufacturing process combining additive manufacturing technology with aluminium extrusions that go into the making of EV motor housings. We developed processes to enhance the material properties of aluminium foils as well as extrusions that go into the manufacturing of battery enclosures for Li-ion batteries.

We evaluate market demands and monitor megatrends to proactively develop products, giving us a first-mover advantage. The development of Spherical Alumina and Hydratable Alumina exemplifies this commitment. We focus on new areas of research, such as copper anode and cathode quality, copper refinery bleed generation optimisation, purification, recycling, and ETP load reduction.

In FY 2023-24, Hindalco Innovation Centres were granted 12 patents

New Products at Our Innovation Centres

	Products and applications developed and accepted by customers	New products and applications developed in lab
HIC Belagavi	5	8
HIC Tribology and Coating Technology	6	15
HIC Semi-fab	3	5
HIC Dahej	0	3

Innovation centres

Products and applications developed and accepted by customers

New products and applications developed in lab

Some of the major developments are elaborated here:

1 Development of High Crystalline Alumina (HCA Series Alumina) for Electro-Ceramic Application

We see an increased customer demand that electro-ceramic products like spark plug, ceramic high voltage insulator, vacuum circuit breaker etc. need better performance in terms of dielectric strength, wear resistance, volume resistivity, etc. Electro-ceramic products need high quality alumina to enrich its performance. Hence, we developed high crystalline alumina or HCA series alumina to suit this application.

Patent mapping and literature survey was conducted to understand the research gap and basic principle of the process and product. Further to that, we followed Taguchi Orthogonal model of Design of Experiments (DoE) to conduct the experiments in lab at HICA to evaluate the hypothesis. We optimised calcination condition and mineraliser dosing in the lab through Design of Experiments (DoE). To evaluate the performance of the developed HCA on electro-ceramic products, we conducted an application study in collaboration with Central Power Research Institute, Bangalore.

We successfully conducted plant trials and the product was commercialised to the high valued customers.

2 Development of Sub-micron Alumina (SMA series) for High-Value Refractory Application

Technology in steel plant refractory is changing rapidly for better performance and quality. There is huge pressure on the refractory manufacturers to provide high super quality refractories that are equipped to cater to better high temperature performance in steel, cement, and copper manufacturing plants. Hence, our purpose was to develop SMA series alumina for high temperature performance in refractory products.

In understanding the role of dispersant and milling aid in developing sub-micron reactive alumina, we carried out a literature survey to identify possible suitable dispersant and milling aid for the experiments. Following the Taguchi DoE model, we conducted milling experiments at HICA by using 3 factors. Further, we optimised milling experiment and an application study was undertaken to evaluate the performance of the developed SMA in LCC and ULCC formulation. Our application research proved the performance of SMA in the desired field. Our plant trial was successful, and the product was commercialised to high value customers under the SVAP category.

3 Development of Low Soda Boehmite for Li-ion Battery Separator Application

The market for Li-ion battery separator applications has been growing very fast. Also, our Specialty Alumina business is diversifying its product portfolio towards Super Value-Added Products (SVAP), of which Boehmite is one, and can be used as battery separators.

The methodology to develop the Boehmite involved selecting the required feed ATH and controlling the physical properties by process control and chemical treatment. Starting with literature survey and a series of lab experiments, we developed a process to produce Boehmite with the desired specified surface area and particle size range. Reputed customers like OLA have accepted our product. We are setting up pilot scale facilities for the production of low soda Boehmite.

At Novelis, we introduced 8 innovative products across various segments of our portfolio. For can applications, we have developed BPA-NI coatings and lamination solutions for both public and product sides of can-end sheets. In our specialties segment, we introduced water-based clear coats and wrinkle-free coatings for painted products, along with highly-recycled content aluminium sheets for coffee capsules. In automotive, we have unveiled a second-generation design for aluminium EV battery pack enclosures. In addition, we are actively exploring carbon capture and conversion technologies for our operations and buildings.

New products developed at our Novelis operations include high recycled content alloys for beverage packaging, such as AA3104 (Unialloy) and an alternative AA5xxx alloy, which are not yet commercialised but have made noteworthy progress toward adoption in partnership with customers.

We have also developed high recycled content alloy substitutions for food cans and ends in North America, and alternative BPA-NI can end coatings qualified or in qualification in North America and Europe (PPG, Akzo).

In the automotive sector, we launched several new products and applications such as battery bottom plates in 6xxx alloys T6 tempers for customers like Volvo, Stellantis, and Toyota; a thick gauge 5754 H23 5mm gauge for battery bottom plates at BMW; and a Unialloy VW ID7 door with RSW joining technique.

4 Battery Enclosure Cover Plates for Electric Vehicles

In response to the need for high-strength cover plates in battery enclosures for 4-wheeler electric vehicles, we developed an AA5182-H111 grade aluminium sheet with high formability characteristics. This involved controlling yield strength for spring back, optimising annealing processes to prevent microstructure issues. We also defined the post-lube process to generate surface characteristics to prevent thinning and cracking during formation. This solution aims to improve the safety and durability of electric vehicles by ensuring the cover plates meet stringent requirements of dimensional control for leak-proof performance. We have completed the commercial supply for prototyping and material qualification.

Our scientists have developed high-strength cover plates in battery enclosures for 4-wheeler EVs

Hindalco has signed an MOU with Indian Coast Guard to supply aluminium for ships

5 India's First Aluminium Propeller Shaft

Aluminium propeller shaft is an alternative to the traditional heavy steel propeller shafts, which used to hamper vehicle performance and reduce fuel efficiency. By introducing India's first aluminium propeller shaft for automotive 4 wheelers, we achieved a 56% weight reduction compared to steel, thereby enhancing performance and fuel efficiency. Our innovation involved developing precise specifications to substitute steel tubes with high-fatigue performance aluminium alloy, mimicking a seamless tube. The extruded tube was drawn thinner with tighter specifications and assembled with a yoke to make the propeller shaft. It has been implemented in over 100,000 vehicles without any reported failures.

Out of the 100,000 vehicles, over 70,000 propeller shafts were installed in automotive 4 wheelers. We are further exploring the introduction of aluminium tubes in other types of commercial and passenger vehicles. The solution has enabled us to gain market entry for shaft applications with a potential for partnerships with OEMs.

>70,000

Propeller shafts installed in automotive 4 wheelers, out of the 1,00,000 vehicles.

6 Indigenous Aluminium Alloy Adoption for Ship Building and Marine Applications

The initiative focused on promoting lightweight, corrosion-resistant, recyclable aluminium to build superstructures of naval warships and hulls of electric ferries. Aluminium would be an excellent alternative to other metals in the marine segment – and we wanted to supply indigenous alloys to cater to these requirements. Indigenisation would result in import substitution, save valuable forex, and promote the domestic ecosystem under the Atmanirbhar Bharat initiative. Our targeted stakeholders included Indian Navy entities like organisations supplying materials, shipyards, and other supply chain partners involved in shipbuilding activities.

The use of our high-strength marine-grade aluminium alloys in the hulls and superstructures of patrol boats, electric ferries, and naval warships has increased the mix of indigenous products in shipbuilding, boosting the self-reliance of Indian Navy entities and agencies. We supplied sheets, plates, chequered sheets, and extrusions, among other products for the construction of electric ferries and other naval vessels. In FY 2023-24, we signed MOUs with shipbuilders and shipyards, marking the first step towards realising the initiative's objectives.

7 Aluminium Battery Pack Enclosure

As a large 2-wheeler manufacturer in the country (Hero) ventured into the E2W market, while ensuring compliance to IP67. Their brand VIDA provides a convenient detachable battery pack that is easy to handle and charge. We partnered with Hero to offer a ready-to-assemble battery pack enclosure for this convenient detachable battery pack.

We provided a comprehensive solution to create a portable, safe, and robust battery enclosure that could withstand road conditions. This involved complex extrusion with tight tolerances, black anodising for aesthetics and surface insulation, and precise post-extrusion machining to achieve IP67 compliance.

The solution is not only convenient, comfortable, and portable but also robust and safe.

As of March 2024, 19,726 units of Hero-Vida have been sold since its launch, serving the cause of safe and comfortable E2W mobility.

8 Development of Coatings (Base and Top) for AC Fin Stock

To support the development of 16,000 MT of coated products, we created a Primer Base Coat and Hydrophilic Topcoat for AC fin stock. With the impending introduction of a new coating line for air conditioner fins, our objective is to gain a competitive edge by creating in-house coatings. We began with a comprehensive literature survey to understand consumer demand, followed by experiments, formulation, and optimisation. This has yielded significant benefits, including a remarkable 30% cost reduction compared to commercial products.

In FY 2023-24, laboratory development of the coatings was successfully completed, and the first trials produced satisfactory results.

Our scientists have developed fume-free billet-cutting lubricant that enhances operational safety

9 Development of Fire Resistant Hydraulic Fluid (FRFH) Grade 46 and 68

To address the critical challenge of hydraulic equipment operating near heat sources and fire hazards, our team developed a Fire Resistant Hydraulic Fluid (FRFH). Leveraging a rigorous approach that combines extensive literature reviews, experiments, and formulation optimisation, we successfully created a high-performance product that did well in pilot trials. With its proven efficiency, we have initiated a continuous supply of FRFH to our Taloja and Belur facilities, ensuring the highest level of safety and reliability for our operations. This initiative is projected to save ₹0.15 crore annually on lubricant costs. This solution is a milestone in enhancing safety and efficiency across hydraulic operations.

10 Lubricant for Billet Ends – Plant Trial at Renukoot and Alupuram

At Alupuram, the traditional use of acetylene soot for lubrication prompted us to seek an alternative to foster a cleaner work environment. This nudged us to develop a lubricant for billet ends for use at Alupuram and Renukoot.

After conducting a detailed literature survey, we designed experiments and optimised formulations to develop the lubricant. Post successful pilot trials, we are supplying the lubricant to the plants.

This innovation is projected to save ₹10 lakh annually on lubricant costs, with completed product development and successful pilot trials in FY 2023-24.

11 Fume-Free Billet Cutting Lubricant

At Alupuram plant, the use of non-standard oil as a cutting lubricant resulted in fumes and smoke emissions, impacting the health of operators. To address this issue, we initiated the development of an in-house lubricant.

After conducting a comprehensive literature survey, we designed experiments and optimised formulations to develop the lubricant. After successful pilot trials, the lubricant is now being used at Alupuram.

This innovation is projected to save ₹20 lakh annually on lubricant costs, marking a significant milestone in enhancing safety and efficiency at Alupuram.

Collaborate to Innovate

In our pursuit of innovation through collaboration, we have partnered with recognised research institutions including the ABSTC, IIT Bombay, IIT Madras, and others. These long-term associations have been instrumental in creating scalable solutions and improving our operational performance. We always seek for new collaboration opportunities to expand our reach, scale, learn and make a bigger impact.

For instance, in the RAMFLICs project, which aims to develop scalable technology for hybrid additive manufacturing, we collaborated with IIT Bombay and IIT Madras, and German partners Gefertec GmbH, IPK Fraunhofer, and the University of Brandenburg. This innovative project, sponsored by the Indo-German Science and Technology Centre (IGSTC), enabled the sharing of expertise and resources to drive breakthroughs in the field.

Apart from focusing on new energy reduction technologies for aluminium smelters, our collaborations with ABSTC have led to the development of AA1100 and AA1060 grade foils for battery applications, as well as the introduction of Hindalco's HIL1X-HC alloy for battery foil (patent pending).

This alloy is known for its exceptional strength and conductivity properties in Li-ion battery current collectors.

Through our collaborations with BITS Pilani, Goa Campus, and IIT Kharagpur we have been able to enhance the quality of copper cathode and conduct pyrometallurgical experiments under controlled conditions.

These collaborative endeavours underscore our commitment to innovation, continuous improvement, and driving impactful change in the industry. A snapshot of the positive impact from these collaborations has been highlighted below.

Smelter Efficiency: Implementation of Feeder Design at Birla Copper Smelter-1

We undertook an initiative to improve feed concentrate distribution in the flash smelting furnace reaction shaft at Copper Smelter-1. It addressed matters like high heat loss and matte grade variation caused by an inadequate system. To tackle this, we devised a feeder design to enhance smelter efficiency. By integrating advanced simulation tools, Computational Fluid Dynamics (CFD) and Discrete Element Model (DEM), we optimised the design, validated its performance through prototyping, and successfully scaled up the implementation. The new feeder design resulted in cost savings, increased smelting efficiency, reduced dust loss, and furnace downtime.

It led to a significant production boost of 4,000 tonnes per annum, and improved furnace health with extended operational life. We have been granted patent for this indigenous feeder design.

Optimising Copper Smelter Efficiency: Addressing Refractory Cooling Element Challenges

The challenge we faced was to maintain copper production even though the cooling elements of the Flash Smelting Furnace (FSF) as Smelter-1 were worn-out. Our copper business initiated a project with ABSTC to develop a multiphase CFD model to integrate smelting reaction kinetics to analyse this matter.

The Reduced Order Model (ROM) provided insights into optimal operating conditions to prevent further wear and tear of cooling elements. By adjusting the feed rate, matte grade, and other parameters, the smelter continued operation until the scheduled shutdown.

Lower matte grades led us to a revenue gain of ₹39 crore in FY 2023-24.

We could consume an additional amount of cold doping (WIP) by 5,193 MT through running the furnace with optimum operating conditions. The intervention highlights the importance of optimising the efficiency of our smelter for sustainable copper production.

Our smelters and ABSTC collaborated to find sustainable alternatives to Coal Tar Pitch (CTP) as a binder in carbon anodes

Empowering Rail Transportation: Achieving Cu-Mg Alloy Specifications for High-Speed Trains

Our copper operations, along with ABSTC, collaborated to optimise the properties of the Cu-Mg alloy to enhance the efficiency of rail transportation. The alloy also had to meet the Research Design and Standards Organisation (RDSO) specifications. As part of the initiative, we developed a methodology focusing on alloying content, solidification modelling, annealing, extrusion, and wire drawing. This methodology led to significant improvements in our process.

In FY 2022-23, the commencement of a new upcasting facility also helped make casting adjustments in line with this methodology.

Further enhancements, such as reducing grain size through extrusion and optimising wire drawing processes, resulted in a tensile strength of 670 MPa. This helped us surpass RDSO requirements without increasing magnesium content.

Exploring Sustainable Solutions: Substituting Coal Tar Pitch in Carbon Anodes

In response to global challenges surrounding raw material availability and stringent emissions standards, our smelters and ABSTC collaborated to find alternatives to Coal Tar Pitch (CTP) as a binder material in carbon anodes. Despite its widespread use, CTP was in limited supply, was high in Polycyclic Aromatic Hydrocarbons (PAHs), and caused damage to the environment. This prompted our researchers to explore more sustainable alternatives.

During FY 2022-23, our team with ABSTC established a lab-scale facility to test alternative binder materials, including petroleum pitch, phenolic resins, and bio-pitch. These lab experiments focused on blending petroleum pitch with CTP and characterising the resulting compositions. In FY 2023-24, our emphasis shifted towards developing a green anode recipe using the identified alternate binder to ensure raw material security and compliance with emissions regulations. This initiative concluded with a proposal to move forward with plant-scale testing of the blend – consisting of CTP with 20% petroleum pitch. This breakthrough paves the way for us towards a more sustainable and operationally efficient solution.

Engineering Excellence: Enhancing Performance at Renukoot ABF-6

To enhance operational excellence at Renukoot smelter's ABF-6, we undertook an initiative with a focus on improving anode quality and reducing energy consumption.

A joint analysis by ABSTC and our plant teams identified the root causes – subpar baking and high energy consumption. Implementing design and process improvements during FY 2023-24 led to increased baking homogeneity and targeted repairs, reduced fuel consumption and ID fan power.

As a result, anode baking levels were improved to 31Å, ID fan power decreased to 156 KW, and LSHS consumption reduced, contributing to overall energy efficiency.

Digitalisation

Our commitment to enhancing digital capability and fortifying cybersecurity underscores our dedication to operational excellence, innovation, resilience, safety, and sustainability across Hindalco.

Digital transformation, by integrating robust IT, OT, and cybersecurity practices, plays a pivotal role in our operations. We are driving digital transformation by equipping our employees with cutting-edge digital skills and deploying advanced technology solutions.

We empower employees across all levels and business units to master the latest technologies, data analytics, and cybersecurity best practices, through comprehensive training programmes. Our training portfolio encompasses a broad range of competencies, including digital technologies, Industry 4.0, data analytics, OT and IT security, platform integration, asset reliability, and technical proficiency.

At the foundational level, DISHA 2.0, our initiative for Digital Shiksha, has provided training to more than 3,000 junior and middle managers across 17 plants and mines. It focuses on Industry 4.0 and Digital Technologies, and Basics of Data Analytics. More than 300 operations and maintenance managers honed their data analytics skills, enabling them to analyse plant-specific data for effective problem-solving. Over 248 participants received training in platform-focused skills such as Oracle OAC, Oracle APEX, Aspen MTELL, ACHON, and OSI-PF.

In addition to upskilling existing Digital Ambassadors (DAs) and Data Scientists, we organised webinars covering topics such as Generative AI and OT-IT Cybersecurity, attracting over 1,500 employees. Complementing these efforts, initiatives like the "Data First" mailer campaign, "Data ki Duniya" movie, and DigiTalk sessions were launched to foster a digital-centric culture and drive a mindset shift among our employees.

To address cybersecurity concerns, we initiated the "Cyber Suraksha Abhiyaan" programme, aiming to transform employees into the first line of defence against cyber threats. Through various modes, such as threat simulation exercises, e-learning modules, online sessions, and a dedicated information security helpline, the programme ensures continuous knowledge dissemination and support, reinforcing our commitment to cybersecurity awareness and preparedness.

We have implemented a robust IT governance framework, designed to guarantee the integrity and security of our digital assets. The IT Risk Management Committee, led by our Chief Digital Information Officer (CDIO), provides strategic oversight and direction to our IT initiatives. To further enhance cybersecurity, we have appointed a dedicated Head of Information Security and Cybersecurity, who is equivalent to Chief Information Security Officer (CISO) who reports directly to the CDIO and oversees all cybersecurity activities across the organisation.

The CISO chairs an Information Security Management Committee, comprising senior executives from various IT centres, including IT teams across officers, plants and mines. This committee ensures comprehensive oversight of our information security position and provides regular updates to the steering committee, which includes our Managing Director, CFO, and CDIO, among others. To further ensure the effectiveness of our cybersecurity strategy, we have engaged a director with a relevant IT background to provide strategic guidance and oversight at the governance level. Mr. Askaran Agarwala chairs the board committee dedicated to cybersecurity, complemented by the Chairperson of the Risk Management and ESG Committee, and the Managing Director.

We have achieved ISO 27001 certification for our entire IT infrastructure, demonstrating our commitment to maintaining a robust and secure IT environment that ensures the resilience and integrity of our critical business operations. Semi-annual vulnerability assessments and penetration tests conducted by external auditors are integral to our proactive approach in identifying and mitigating potential risks effectively.

We have strengthened network assets and operations. Evaluation and potential adoption of solutions such as Micro-segmentation, Privileged Access Management (PAM), Cloud Security Posture Management (CSPM), Azure Active Directory (AD) migration, and End-point Encryption are underway to mitigate application-related threats and govern privileged access across our infrastructure segmentation and adopted advanced technology solutions such as End-point Detection and Response (EDR) to facilitate faster cyber threat detection and response mechanisms. Our efforts have ensured zero cases of data breach and information security failure in the reporting year. We received zero complaints from any stakeholder regarding data breaches, including customer privacy, in the past 2 financial years.

NATURAL CAPITAL

Sustainable Solutions for Responsible Growth

Utkal Alumina hosts India's longest single flight conveyor system, a sustainability marvel that prevents 38,000 metric tonnes of CO_2 emissions

Key Highlights during FY 2023-24

60% ↑
In installed renewable capacity (without storage) from FY 2022-23*

19.54% ↓
In specific greenhouse emissions for aluminium from base year FY 2011-12*

8.46% ↓
In specific freshwater consumption for aluminium from FY 2018-19*

113,012.6 m^3
Water storage capacity created in water stress areas*

59% ↓
Specific water at Dahej (water stress area) from FY 2018-19*

27% ↓
Specific water at Belagavi (water stress areas) from FY 2020-21*

85%
Recycling of non-hazardous and hazardous waste

5 Mines
Certified for Water Positivity*

410,355
Trees planted*

4.48% ↑
In cumulative green cover from FY 2022-23*

** The details provided are for India Operations*

Capital Linkages

- Financial Capital
- Manufactured Capital
- Intellectual Capital
- Human Capital
- Social and Relationship Capital

Strategic Priorities

- SP-3 Strong ESG Commitment

Material Topics

- M1 Energy and GHG Emissions Management
- M2 Waste and Hazardous Materials Management
- M3 Water Management
- M6 Compliance Management
- M8 Air Emissions
- M10 Biodiversity

Key Risks and Opportunities

- R1 Increased focus on decarbonisation
- R5 Changes in regulatory requirements
- R6 Stakeholders' focus on ESG
- R7 Solid waste management
- R9 Depletion of natural resources

SDG Linkages

As stewards of finite resources, we acknowledge the pivotal role our sector plays in shaping the future. In an era where protecting the environment is of utmost importance, we are committed to balancing mining operations with ecological well-being through advanced technology. Our reliance on the environment means that we must support all stakeholders in addressing climate change, promoting sustainable practices, and minimising our impact on the planet. Our strategic focus on ESG is integrated across all operations to create a greener and sustainable world. This is how we are a force for good for the planet.

Focus Areas

- Δ Net Zero
- Δ Improving Ambient Air Quality
- Δ Water Stewardship (Zero Liquid Discharge, Water Neutrality and Water Positivity)
- Δ Circular Economy, Recycling and Zero Waste to Landfill
- Δ No Net Loss to Biodiversity
- Δ Sustainable Mining

Bagru bauxite mine is a role model for Hindalco's commitment towards nature positivity

Environmental Management

At Hindalco, we have a multi-tiered governance structure to ensure effective environmental management. Our Risk Management and ESG (RM and ESG) Committee is responsible for providing strategic oversight to improve environmental performance.

The Committee, comprising Board of Directors and Managing Director, has quarterly meetings to oversee the performance. The Apex Sustainability Committee (ASC) drives the sustainability initiatives across the organisation and monitors effectiveness through monthly performance reviews. The ASC consists of the Chief Risk Officer, Chief Sustainability Officer (CSO), Chief Technology Officer, and Head of Energy and Green Energy. The environmental performance, including climate-related issues, is reported to the RM and ESG Committee every quarter.

In the operational front, there are teams at cluster, site, and department levels to implement and track initiatives on the ground. The teams update the CSO on the environmental performance of the respective plants regularly. A task force review of water, waste, air emissions, and biodiversity is conducted every quarter at all the plants. The line function heads present their performance on the KPIs and action plans, which helps us in benchmarking best practices.

With the aim to cascade environmental stewardship across the organisation, we have integrated sustainability parameters in our Annual Incentive Payout (AIP). These parameters include 100% utilisation of fly ash for all plants including co-generation units, 5% reduction in specific water consumption, Zero Waste To Landfill, 100% bauxite residue utilisation across 3 refineries, 10% bauxite residue utilisation for Utkal, and management of energy consumption in line with the plan.

We use digital tools such as Enablon and ESG Compass to track and monitor environment related KPIs. ESG Compass, a key digital initiative, is designed to significantly enhance our ESG data traceability and authenticity. It features dashboards, analytics, and benchmarking tools that bolster our ESG analytical ability. We've also conducted a successful pilot project using blockchain technology to strengthen the traceability of our waste.

We have adopted various policies, including Environment Policy, Sustainability Policy, Biodiversity Policy, Energy and Carbon Policy, and Tailings Management Policy which guide us to achieve operational excellence. All our India operations and 29 of Novelis' operations are ISO 14001: 2015 certified which provide the necessary framework for managing compliance and improving environmental performance.

Our sustainable practices are further strengthened by 8 Hindalco plants, 22 Novelis plants and 14 scrap centres earning certification for Aluminium Stewardship Initiative Standards.

With the aim of minimising our environmental footprint, we conducted a comprehensive life cycle assessment from Cradle-to-Gate (Cradle-to-Gate is a measure of a product's environmental footprint up to the point where it leaves the factory gate). The assessment considered inputs such as materials, energy, water, and outputs such as emissions and waste at each life cycle stage. It evaluates and quantifies the potential impacts of our operations on various environmental aspects, including climate change, resource depletion, human health, and biodiversity.

Before commissioning any new project, we conduct an Environmental Impact Assessment in line with applicable laws and regulations. In the reporting period, we conducted EIA and received environment clearance for the Waghodia plant which is stated to manufacture copper tubes and copper alloy rods. To identify and track the environmental impact of our operations, we maintain impact registers at all our plants. At Hindalco India, we faced zero non-compliances in the reporting year. However, we accrued a total environmental liability of ₹9.15 crore at the end of the reporting period.

During the reporting period, we spent ₹1,053.99 crore in Capex and ₹1,000.59 crore in revenue expenditure. At Hindalco, we spent ₹1,029.15 crore in Capex and ₹843.29 crore in revenue to achieve our long term strategic environmental goals, increase energy efficiency, improve air emissions, reduce CO_2 emissions, efficiently manage water and waste and introduce other circular economy measures.

At Novelis, we spent $3 million (₹24.84 crore) in Capex and $19 million (₹157.30 crore) in Opex. These efforts have resulted in cost savings of ₹143.49 crore at Hindalco and $8.3 million (₹68.72 crore) at Novelis.

₹1,053.99 crore
Spent in Capex to achieve our long-term strategic environmental goals

₹1,000.59 crore
Spent in Revenue to achieve our long-term strategic environmental goals

Net Zero

Climate Action: Adapt, Thrive and Survive

Adverse climate events have the potential to damage infrastructure, deplete natural resources, and disrupt supply chains which can hamper availability of resources required for long-term sustenance of the business.

The Global Risk Report 2024 identified extreme weather events, changes in earth's systems, biodiversity loss, natural resource shortages and pollution as long-term risks.

The Global Risk Report coupled with the findings from COP28 are a clarion call for companies to take concrete steps to respond to the identified risks.

Global risks ranked by severity over the short and long term

2 years

1st Misinformation and disinformation
2nd Extreme weather events
3rd Societal polarisation
4th Cyber insecurity
5th Interstate armed conflict
6th Lack of economic opportunity
7th Inflation
8th Involuntary migration
9th Economic downturn
10th Pollution

10 years

1st Extreme weather events
2nd Critical change to Earth systems
3rd Biodiversity loss and ecosystem collapse
4th Natural resource shortages
5th Misinformation and disinformation
6th Adverse outcomes of AI technologies
7th Involuntary migration
8th Cyber insecurity
9th Societal polarisation
10th Pollution

Risk Categories

Economic *Environmental* *Geopolitical* *Societal* *Technological*

Source: Global risk report 2024

Ecosystem restoration initiatives were taken at Bagru to combat biodiversity loss

Climate-related Risks and Opportunities

As the impacts of climate change pose potential short-, medium-, and long-term risks to our business, we have embraced a proactive approach to identify, quantify and mitigate those risks. Our efforts are devoted to building climate resilience into our business to contribute to the decarbonisation journey.

Climate risk management is integrated into our enterprise risk management programme. This year, we enhanced our risk management process to include managing the effects of episodic climatic events such as storms, floods, droughts and temperature extremes. We used the Representation Concentration Pathways (RCP) scenarios by the Intergovernmental Panel on Climate Change (IPCC) to evaluate physical risks such as the effects of changes in temperature and precipitation at our plants. We have also considered IEA scenarios such as Net Zero Emissions by 2050 Scenario (NZE) and Beyond 2°C Scenario (B2DS) developed by the International Aluminium Institute (IAI) to analyse potential transition risks. We conduct periodic climate risk assessments and the findings are available in Hindalco's Task Force on Climate-related Financial Disclosure report FY 2021-22.

In the FY 2022-23, we worked with AXA Climate experts to conduct a reassessment using a multi-peril analysis to strengthen our mitigation strategy. In response to the findings of the study, we are taking mitigation actions to minimise these risks.

Risk Overview

1. Disruption to mining operations due to extreme weather events

Impact associated with the identified risk:
- Increased risk of mine closures or delays in production due to floods and landslides resulting in damage to equipment and infrastructure

Financial implications of the risk before actions are taken:
- Potential revenue losses from decreased production output and increased maintenance costs

Methods for managing risk:
- Implement early warning systems to track extreme weather events
- Develop contingency plans for temporary mine closures or reduced operations
- Invest in resilient infrastructure and equipment

2. Regulatory changes related to carbon emissions and environmental standards

Impact associated with the identified risk:
- Potential fines for non-compliance with environmental regulations, leading to increased cost

Financial implications of the risk before actions are taken:
- Direct financial costs from carbon taxes, emissions permits, and compliance reporting
- Indirect costs from changes in market demand and investor perception

Methods for managing risk:
- Conduct regular assessments to ensure compliance with environmental regulations
- Invest in emissions reduction technologies and sustainable mining practices
- Engage with regulators and industry groups to influence policy decisions

3. Impact of climate change resulting in water scarcity

Impact associated with the identified risk:
- Less water available for processing ores and dust suppression at mines and for production at plants

Financial implications of the risk before actions are taken:
- Potential production disruptions and increased costs for alternative water sources or water treatment
- Estimated financial implication of the risk is ~₹1.37 crore and estimated costs associated with the risks is ~₹243 crore

Methods for managing risk:
- Implement water management strategies such as recycling and reuse of process water, rainwater harvesting
- Invest in water-efficient technologies and conservation measures

4. Increased focus on decarbonisation

Impact associated with the identified risk:
- Failure to adequately address the focus on decarbonisation leading to increase in compliance costs, regulatory penalties, reputational damage, and diminished market competitiveness

Financial implications of the risk before actions are taken:
- Operation costs might be impacted by policies such as carbon pricing in the future
- An increased focus on decarbonisation can affect our operations since coal is one of the primary energy sources leading to increase in our carbon footprint
- Estimated financial implications ~₹677 crore (Considering coal consumption of ~ 17 million MT and a carbon tax of ~₹400/MT) and estimated cost of the actions are ~₹228 crore

Methods for managing risk:
- 173 MW of renewable energy capacity resulting in increased use of renewable energy
- Finalised pumped hydro storage to deliver 100 MW of round-the clock renewable power

5. Climate change leading to flooding of plants

Impact associated with the identified risk:
- Changing climate patterns pose a threat of floods which may disrupt processes, damage equipment and product

Financial implications of the risk before actions are taken:
- Potential loss of life, property
- Financial loss upto 0.08 to 1% of revenue

Methods for managing risk:
- Insurance for losses due to natural hazard which covers revenue loss, equipment repair cost, damage to any other goods or infrastructure
- Disaster management plan implemented across all units
- Regular tracking of India Meteorological Department (IMD) reports

6. Loss of Biodiversity

Impact associated with the identified risk:
- The loss of biodiversity and extinction of species can lead to severe consequences for the environment, impacting both terrestrial and marine ecosystems

Financial implications of the risk before actions are taken:
- Potential collapse of ecosystems due to biodiversity loss will lead to imbalance that will hinder operations and give rise to various infectious diseases

Methods for managing risk:
- Scientific biodiversity management studies and implementing the recommendations in the core zone and buffer zone of our operational boundary

Opportunities Overview

1. Increased demand for sustainable aluminium products

Impact associated with the identified opportunity:
- Growing market demand and consumer preference for aluminium products with low carbon footprint and recycled content

Financial implications of the opportunity before actions are taken:
- Potential revenue growth from sales of sustainable aluminium products
- Opportunities to expand into and enter new market segments with a special focus to enhance our exports of aluminium products across our businesses from India and other parts of the world
- ~ ₹27 crore of positive financial implication, considering 5% of our primary aluminium production will be low carbon
- Estimated costs associated with developing this opportunity is ~ ₹223 crore

Methods for managing opportunity:
- Invest in research and development to innovate sustainable aluminium alloys and manufacturing processes
- Enhance marketing and brand campaigning to promote sustainable products

2. Investment in sustainable mining and processing practices

Impact associated with the identified opportunity:
- Sustainable mining practices address the environmental, economic, health and social impacts and benefits of mining throughout the life cycle

Financial implications of the risk before actions are taken:
- Potential cost savings from efficiency improvements and resource optimisation
- Reduction of regulatory and reputational risks associated with environmental impacts

Methods for managing risk:
- Implement sustainable mining and processing technologies such as water recycling systems, energy-efficient equipment, and waste management initiatives
- Engage with local communities and stakeholders to address social and environmental concerns

With the aluminium sector contributing to 2% of the total global Greenhouse Gas (GHG) emissions[10], we understand our responsibility to address climate change and transition to a low carbon economy. At Hindalco, we are committed to achieving Net Zero by 2050 and have set a target to reduce specific greenhouse gas (GHG) emissions by 25% by FY 2026-27 against the base year FY 2011-12 (target is being revised from previously stated target of FY 2024-25 due to revision in commissioning timeline of some of the projects). For our Novelis operations, we aspire to reduce the absolute carbon footprint by 30% by FY 2026 and 100% by 2050 against the base year FY 2016. We further aim to reduce energy intensity by 10% by FY 2025-26 against the base year FY 2020.

These commitments are underpinned by our decarbonisation levers that drive climate action.

1. Energy Efficiency

Undertook several projects to achieve energy efficiency in our processes. At Novelis, we have the Net Zero Lab Valais in Switzerland to advance novel net zero solutions for aluminium manufacturing.

2. Reducing Dependency on Fossil Fuels- Renewable Energy

Increased Hindalco's renewable energy portfolio to 173 MW. This has helped us reduce emissions and dependence on fossil fuels.

3. Collaboration for New Technologies

Promoted the Energy Reduction and Sustainable Engineering (ERASE) programme at Novelis. This focuses on evaluating, developing, and piloting new technologies to reduce emissions and exploring carbon capture technologies at Bay Minette, Alabama. Our Latchford (UK) plant is participating in a regional hydrogen network project to evaluate the feasibility of using low-carbon hydrogen. We are also exploring innovative furnace technologies, hydrogen-fuelled furnaces, use of natural gas, and carbon storage and capture.

4. Recycling of process scrap and end-of-life scrap

Expand Novelis' recycling capabilities to reduce the consumption of primary aluminium and the product's carbon footprint. We have established closed-loop recycling systems for all the scrap generated along the value chain. We conduct regular engagements with our value chain partners to maximise circularity and implement closed-loop systems.

Internal Carbon Pricing (ICP)

At Hindalco, we have implemented Internal Carbon Pricing to reduce our carbon footprint by integrating the cost of carbon emissions into business decisions. By assigning a monetary value to carbon emissions, we incentivise energy efficiency, adopt cleaner technologies, and reduce GHGs across operations. We have finalised the price of $31 for 2021-2030, $43 from 2031-2040 and $59 for 2041-2050. This approach not only helps us mitigate the environmental impact but also aligns with our sustainability goals and enhances long-term economic resilience.

[10]*Source: WEF*

The ropeway at Bagru which carries bauxite to Lohardaga; one of the most sustainable means of transportation

Energy Consumption

With the aim to lower carbon footprint, we have implemented a 3-fold agenda of using renewable resources, utilising modern manufacturing technologies to increase manufacturing and energy efficiency.

At each plant, we have Energy Managers and an Energy Task Force who provide performance oversight and report monthly to the leadership team. Their work is to identify initiatives to improve energy efficiency and minimise losses. Energy related KPIs are integrated in our management system, and we regularly conduct internal energy audits. As the outcomes of the audits conducted in the reporting year, we identified 15 energy saving projects which can provide energy saving of ~ 8,000 GJ. External energy audits were conducted for our Mouda and Taloja plants.

At Novelis, we have instituted a Global Procurement Energy Council comprising energy leaders and subject matter experts. Novelis Energy leaders, present in 4 regions, conduct monthly meetings to discuss energy-related matters.

The key agenda of these monthly meetings include projects to improve energy consumption, installation of state-of-the-art technology, and the capex requirements for implementing the projects.

At Novelis, we conduct 3 types of energy audits, to track progress against determined commitments and identify areas for improvement:
+ Performed by technical departments
+ Global Manufacturing Excellence by cross-factory units within the same region
+ Internal audits involving energy auditing firms

We build awareness among employees on reducing energy consumption through on-site and online training and through weekly knowledge sharing sessions. Every month we conduct energy webinars separately to gain insights into best practices on the ground. In the reporting year we invested ₹15 crore for research and development to decrease energy consumption.

HINDALCO

TARGETS	To achieve **300 MW** of renewable capacity – 200 MW without storage and 100 MW with storage by 2026*.
PROGRESS	**173 MW** of installed renewable capacity (without storage) till date

NOVELIS

TARGETS	To reduce energy intensity by **10%** FY 2025-26 against the base year FY 2019-20
PROGRESS	**1.84%** Specific energy intensity increase from FY 2019-20

** Change in the target year from 2025 to 2026, due to revision in commissioning time of some projects.*

TOTAL ENERGY CONSUMPTION *(million GJ)*

FY 2020-21 | FY 2021-22 | FY 2022-23 | FY 2023-24

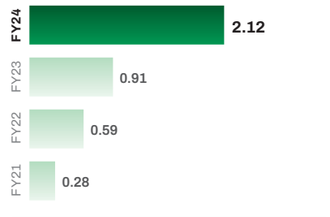
	Hindalco	Novelis	Total	Hindalco India Standalone	Hindalco India Subsidiaries	Novelis	Total
Fossil Fuels (A)							
	255.65	25.64	281.29	249.03	23.09	27.93	300.05
	269.72	29.34	299.06	**255.67**	**24.07**	**27.15**	**306.89**
Electricity Purchased (B)							
	1.90	11.42	13.32	3.49	0.07	9.84	13.40
	2.68	10.05	12.73	**2.23**	**0.10**	**11.06**	**13.39**
Steam/Heating/Cooling and other energy (Non-renewable) Purchased (C)							
	-	0.21	0.21	0.01	-	0.23	0.24
	0.01	0.30	0.31	**0.02**	**-**	**0.30**	**0.32**
Total Non-Renewable Energy (Electricity, Heating and Cooling) Sold (D)							
	2.70	-	2.70	1.71	-	-	1.71
	2.20	-	2.20	**1.81**	**-**	**-**	**1.81**
Total Non-renewable Energy (A+B+C-D=E)							
	254.85	37.27	292.12	250.82	23.16	38.01	311.99
	270.21	39.69	309.90	**256.10**	**24.17**	**38.52**	**318.79**
Renewable Energy Source (F)							
	0.28	-	0.28	0.87	0.04	-	0.91
	0.59	-	0.59	**1.83**	**0.29**	**0.002**	**2.12**
Total Renewable Energy (F=G)							
	0.28	-	0.28	0.87	0.04	-	0.91
	0.59	-	0.59	**1.83**	**0.29**	**0.002**	**2.12**
Total Energy Consumption (E+G=H)							
	255.13	37.27	292.40	251.69	23.20	38.01	312.90
	270.80	39.69	310.49	**257.93**	**24.46**	**38.52**	**320.91**

Our total energy consumption was at 320.91 million GJ, an increase of 3% from FY 2022-23. The increase in energy consumption can be attributed to various trials of amperage increase and new lining design pots. Out of the total consumption, Hindalco accounted for 88% while the remaining 12% was from Novelis. Our aluminium operations consumed 272.20 million GJ of energy and copper operations 9.65 million GJ. The total consumption at mines was at 0.54 million GJ out, of which 0.37 million GJ was at bauxite mines and 0.17 million GJ at coal mines.

During the reporting period, we made sustained efforts in transitioning from conventional energy sources and deploying renewable energy infrastructure. At Hindalco, our renewable energy portfolio capacity stood at 173 MW, which is a 60% increase compared to previous year's 108 MW. The key renewable projects encompass solar, wind, hydroelectric, and biomass.

In FY 2023-24, we purchased a total of 821,470 renewable energy certificates (RECs) to meet the obligation.

RENEWABLE ENERGY CONSUMPTION
(million GJ)



Hindalco has increased its renewable energy capacity by 60% over the previous reporting period

Highlights of our renewable energy projects

1. Commissioned 2 MW of additional captive solar plant at Alupuram, 21 MW of wind power plant for Belagavi with a potential to reduce 51,500 tCO_2e annually and 41 MW renewable hybrid (21 MW wind and 20 MW solar) at Dahej, which led to an annual avoidance of 51,000 tCO_2e in FY 2023-24, translating to annual savings of ₹36 crore.
2. 2 battery storage projects along with solar plant were commissioned at Gare Palma mines and Bagru mines leading to an annual emissions savings of 293 tCO_2e, translating to annual savings of ₹82 lakh in the reporting year.
3. Novelis signed a long-term PPA for the German plants to deploy renewable energy for 16% of the electricity consumption.
4. Installation of solar park in Italy has been announced recently. The park will supply 4,000 MWh per year – approximately 12% of the Pieve plant's electricity demand – and will reduce carbon emissions by 1,450 MT annually.

Renewable energy excellence at Belagavi

Belagavi's use of renewable energy sources is an inspiring example of green energy leadership. We recently commissioned a 21 MW wind energy plant, projected to cater to 85% to 90% of the plant's existing power requirement.

The in-house biomass plant caters to 36% of the steam requirement, further showcasing our commitment to reducing emissions and adopting renewable energy sources. Additionally, we are planning a 9 MW solar power plant for future expansion projects.

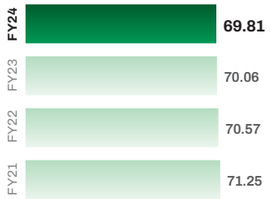
The refinery has a much lower carbon emission rate than the industry average, standing at 0.59 tCO_2e/MT in FY 2023-24, with plans to reduce it further in upcoming years.

Energy Intensity

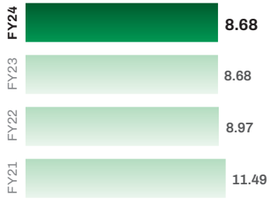
At Hindalco, we continuously track the energy intensity for our aluminium and copper operations. For aluminium, the specific energy consumption refers to the energy consumed per tonne of primary aluminium produced in the smelter, alumina refinery, and anode plant operations.

For copper, specific energy consumption refers to the energy consumed per tonne of copper cathode produced.

ENERGY INTENSITY- ALUMINIUM
(GJ/MT)



ENERGY INTENSITY- COPPER
(GJ/MT)



For Novelis, the specific energy consumption refers to the energy consumed per tonne of FRP sold. In the reporting period, it accounted for 2.83 MWh/MT FRP as compared to 2.79 MWh/MT FRP in the previous year.

We also monitor energy intensity with respect to turnover. Hindalco India's energy intensity was 3,107.30 GJ/₹ crore (turnover) and 696.04 GJ /$ billion (turnover adjusted for PPP) in the reporting year. In the previous year, the energy intensity accounted for 3,273.86 GJ/₹ crore (turnover) and 725.81 GJ/ $ billion (turnover adjusted for PPP) *.

** PPP Conversion rate: FY 2023-24— 22.4, FY 2022-23 — 22.17*

A view of Hirakud's Smelter potline

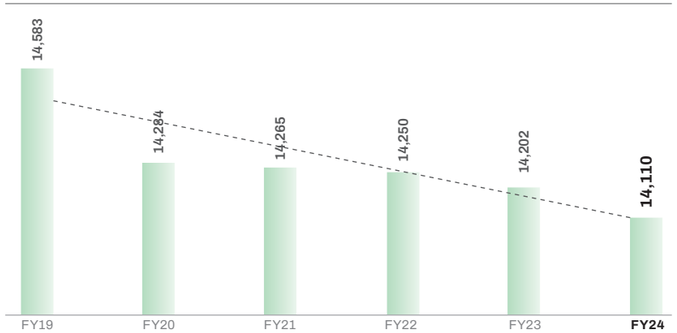
Lining quality improvement at 146 pots at Hirakud smelter

Improving the lining quality in pots boosts overall productivity, efficiency and minimises instances of pot shunting. Lining quality also leads to lower energy consumption. We have deployed various strategies to improve the lining and side-lining standard through appropriate use of ramming bits of varying sizes.

The deployment of ramming bits (flat, square, rectangle, and punch bit) have improved compaction. Using different funnel sizes used for uniformity and consistency, have helped us achieve our objectives. We modified DBM to maximise area coverage, eliminate any possible air gaps and achieve the expected compaction. The modifications enabled the vertical Z-direction and then the horizontal movement of the machine every 4 cycles. These measures have helped us boost operational efficiency and save energy.

We have so far recorded total auxiliary energy savings of 63.8 kWh/MT and a reduction in the usage of our DC energy from 14,202 kWh/MT in the previous year to 14,110 kWh/MT in the reporting year.

DC ENERGY
(kWh/MT)



Reduction in steam consumption by using waste heat of condensate at Belagavi

We strive to leverage proper usage of waste heat of condensate to reduce the steam consumption. Starting with our alumina operations and boiler, we observed flashing in the indirect bauxite slurry heater (IBSH) condensate pump. We conducted a root cause analysis, which found that the flashing was taking place due to higher temperature of the condensate. Flashing also resulted in massive heat loss, improper functioning of steam traps which caused leakages and heater stalling, leading to higher consumption of steam.

To remove these hindrances, we installed a flash vessel to use the heat from the condensate. We also put in place steam operated pumping traps (SOPTs) which continuously pumped condensate from the shell side, preventing heater stalling. After the installation, the IBSH condensate, is now collected in the flash tank which generates flash steam for use in the heater columns. This project led to reduction of overall steam consumption by 0.5 TPH in the IBSH pump and cost savings of ₹ 69 lakh in the reporting year.

GHG Emissions

Smelting is the major source of emissions in aluminium production. We are taking accelerated actions to minimise emissions and progress towards our goals and targets. Our total Scope 1, and Scope 2 emissions generated in FY 2023-24 stood at 29.96 million tCO_2e, of which Hindalco contributed to 27.78 million tCO_2e and Novelis to 2.18 million tCO_2e.

At Hindalco, aluminium operations contributed to 26.89 million tCO_2e of Scope 1 and Scope 2 emissions while copper operations contributed to 0.85 million tCO_2e. Our bauxite and coal mines contributed 0.027 million tCO_2e and 0.011 million tCO_2e to Scope 1 emissions and 0.003 million tCO_2e and 0.003 million tCO_2e Scope 2 emissions respectively.

We have updated our perfluorocarbon emission calculation method as per reporting guidance provided by GHG Protocol and IPCC 2019.

	HINDALCO	NOVELIS
TARGETS	To achieve **Net Zero** by 2050 To reduce specific greenhouse gas (GHG) emissions by **25%** by FY 2026-27 against the base year FY 2011-12*	To reduce the absolute carbon footprint by **30%** by FY 2026 and 100% by 2050 against the base year FY 2015-16
PROGRESS	**19.54%** ↓ In specific greenhouse emissions from base year FY 2011-12	**28%** emission intensity reduction from the base year FY 2015-16 *(Emission intensity per tonne of flat rolled product (MT FRP) shipped)*

** Change in the target year from 2025 to 2027, due to revision in commissioning time of some projects.*

EMISSIONS *(million tCO_2e)*

FY 2020-21 | FY 2021-22 | FY 2022-23 | FY 2023-24

	Hindalco	Novelis	Total	Hindalco India Standalone	Hindalco India Subsidiaries	Novelis	Total
Scope 1							
	25.10	1.45	26.55	24.83	1.96	1.38	28.17
	26.49	1.42	27.91	**25.28**	**2.04**	**1.35**	**28.67**
Scope 2 (Location Based)							
	0.42	1.10	1.52	0.69	0.01	0.86	1.56
	0.59	0.91	1.50	**0.44**	**0.02**	**0.83**	**1.29**
Total Scope 1+2 (Location Based)							
	25.52	2.55	28.07	25.52	1.97	2.24	29.73
	27.08	2.33	29.41	**25.72**	**2.06**	**2.18**	**29.96**

Scope 3 Emissions

At Hindalco, we instituted a system to capture Scope 3 emissions for 5 categories- purchased goods and services, upstream transportation and distribution, downstream transportation, and distribution, fuel and energy related activities (not included in scope 1 or scope 2) and waste generated in the operations in the reporting year. In FY 2023-24, the Scope 3 emissions associated with our upstream Hindalco India operation was 2.44 million tCO_2e.*

At the Novelis plant, total Scope 3 emissions stood at 12.41 million tCO_2e, of which 97% accounted from purchased goods while upstream transportation and distribution accounted for the remaining 3%.

Category*	Hindalco India (Standalone) *(million tCO_2e)*	Hindalco India (Subsidiaries) *(million tCO_2e)*	Novelis *(million tCO_2e)*
Purchased goods and services	1.08	0.42	12.04
Upstream transportation and distribution	0.20	0.04	0.37
Downstream transportation and distribution	0.07	0.05	-
Fuel and energy related activities	0.39	0.10	-
Waste generated in the operations	0.09	-	-
Total	**1.83**	**0.61**	**12.41**

** 1. The computation for Scope 3 emissions for Hindalco India (Standalone) is limited to – Muri, Renukoot, Mahan, Aditya and Hirakud units and Hindalco India (Subsidiaries) is limited to Utkal.*
2. Emissions from waste generated in the operations is partially computed for fly ash and bauxite residue only
3. External validation and assurance is in progress and to be completed in FY 2024-25.

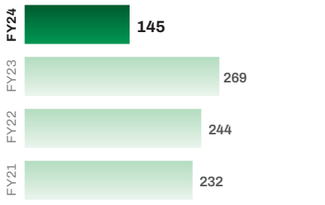
Hindalco has achieved 100% utilisation of total ash

Perfluorocarbon Emissions (PFCs)

During the reporting period, our PFCs accounted for 145 kg CO_2e/MT, a decrease of 46% from the previous year. We have revised the calculation methodology for HV anode effect taking into consideration the IPCC 2019 guidelines as against IPCC 2006.

We have taken up several initiatives to reduce the PFCs that occur during aluminium production due to anode effect when alumina content of the electrolytic bath falls below optimal levels. The upgrade of control system which captures data for Hirakud smelter has resulted in a reduction of 17% of PFC emissions.

PERFLUOROCARBON EMISSIONS
(kg CO_2e/MT)

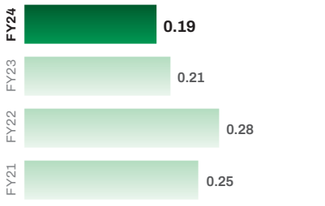


	Tonne PFC produced	PFC *(million tCO_2e)*
FY 2020-21	40.77	0.28
FY 2021-22	45.15	0.32
FY 2022-23	50.81	0.36
FY 2023-24	**27.60**	**0.19**

Ozone Depleting Substances (ODS)

At Hindalco, refrigerants are mainly used in HVAC systems, water coolers, refrigerators, chillers, and dryers. In FY 2023-24, our ODS contribution was at 0.19 MT of CFC-11 eq., which is 10% lower than FY 2022-23. To accelerate our transition towards a more sustainable future, we have developed a comprehensive ODS phase-out plan, which will replace gas with eco-friendly alternatives.

OZONE DEPLETING SUBSTANCES
(MT of CFC-11 eq.)



Phase-out of Ozone Depleting Substances (R-22)

We have started replacing equipment and utilities that were dependent on R-22, and other ozone depleting gases to reduce associated emissions. Since, only replacing gas in the existing equipment will not give us the desired results, we conducted a technical examination of alternative gases, energy consumption, heat recovery, discharge temperature, and Global Warming Potential (GWP) to identify the most suitable substitutes for R-22.

Our analysis revealed that R-290 and R-600a are the most viable alternatives, owing to their low Global Warming Potential. After testing the identified alternatives on various parameters such as mass flow rates, energy efficiency, and discharge temperature of Zero ODP refrigerants, we were able to confirm their suitability for our operations.

We have undertaken the following initiatives at all our plants:

- Monitoring of monthly consumption of ODS
- Sensitisation and awareness among relevant stakeholders
- Development of a plant-wise inventory of equipment using ODS
- Allocation of funds to phase out the equipment

Our assessment revealed that phasing out ODS in 4,369 devices would come at an estimated cost of $7.5 million (₹62.17 crore).

During the reporting period, we invested ₹11.84 crore in capital expenditure towards the phase-out of 1,035 equipment, resulting in a significant reduction of ODS by 10% compared to the fiscal year 2022-23.

GHG Emissions Intensity

In line with our target to reduce emissions intensity by 25% by FY 2026-27 we implemented various initiatives which resulted in 19.54% reduction compared to the baseline FY 2011-12 (24.1 tCO_2e/MT).

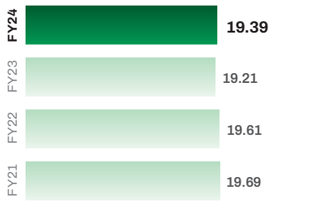
Our aluminium production value chain in India is structured in an integrated manner, spanning across bauxite mines up to manufacturing of primary metal and beyond. Utkal Alumina is an integral part of our operations. Considering this, the specific energy consumption (on physical output basis) is disclosed taking into consideration Hindalco India Limited and Utkal Alumina (Utkal Alumina International Limited), together.

The increase in emission intensity for aluminium can be attributed to various trials of amperage increase and new lining design pots and the reduction in the emission intensity for copper is due to commissioning of hybrid 41 MW renewable energy project.

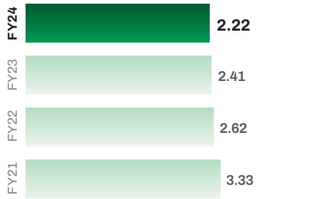
During the reporting period, the emissions intensity per rupee of turnover for our Hindalco India operations accounted for 309.85 tCO_2e/₹ crore as compared to 322.98 tCO_2e/₹ crore in the previous year. The emissions intensity per rupee of turnover adjusted for PPP accounted for 69.41 tCO_2e/ $ billion as compared to 71.60 tCO_2e/$ billion in the previous year*.

** PPP Conversion rate:*
FY 2023-24— 22.4, FY 2022-23 — 22.17

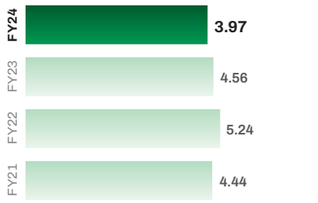
GHG EMISSION INTENSITY ALUMINIUM
(tCO_2e/MT)#



GHG EMISSION INTENSITY COPPER
(tCO_2e/MT)#



GHG EMISSION INTENSITY NOVELIS
(tCO_2e/MT FRP Shipped)##



 # GHG Emission Intensity- Scope 1+2
GHG Emission Intensity- Scope 1+2+3

Initiatives to reduce energy consumption and emissions

We have spearheaded several initiatives aimed at reducing energy consumption and emissions. Such endeavours have yielded a significant energy savings of 2.24 million GJ and 0.32 million tCO_2e proving our commitment to a greener future. By driving innovation and executing our strategic priorities, we are empowering a sustainable tomorrow for our stakeholders and the planet.

117 Projects

Hindalco-44, Novelis- 73

2,236,179.11 GJ
Energy Saved

Hindalco- 1,952,906 GJ, Novelis- 283,273 GJ

316,480.68 tCO_2e
Emissions saved

Hindalco- 287,840.68 tCO2e, Novelis- 28,640 tCO2e

212.21
Cost Savings

Hindalco – ₹143.49 crore, Novelis – $8.3 million (₹68.72 crore)

At Novelis, we invested $20 million to implement several projects that would reduce natural gas consumption in melting furnaces. Further, $2 million was spent on research and development projects such as using hydrogen in the UK facility and developing alternative melting solutions.

To reduce consumption of natural gas, we implemented state-of-the-art automation controls for gas optimisation at Pinda plant. The controls were identified after analysing the existing condition and benchmarking with best practices across industries and sectors. Once the controls were identified, we consulted suppliers for the hardware and implementation.

This initiative has led to 31,338 MWh in energy savings and saved approx. $1.4 million per year as well as resulted in reduced carbon footprint.

We have successfully secured a total of 248,706 Energy Saving Certificates (ESCerts) under the Perform, Achieve and Trade (PAT) scheme, recognising our ongoing efforts to reduce specific energy consumption.

8 of our plants have been identified as Designated Consumer (DC) under the PAT scheme. Of the 8 plants, 7 — Renukoot, Mahan, Hirakud, Utkal, Belagavi, Muri, and Taloja — were identified in previous cycles (I and II), while one plant, Aditya Aluminium, was identified in cycle III. We achieved 9% and 8.8% energy savings against the 4.7% and 6% targets, respectively, in cycles II and III. This notable achievement underscores our commitment to environmental sustainability and energy efficiency.

Technology upgrade of anode furnace at Dahej

To reduce specific energy consumption, increase solid discharge and thereby improve refractory performance, we upgraded our burner technology for the anode furnace in the smelter to Oxy-Fuel Technology. Earlier, the anode furnace catered to a batch size of 385 MT molten blister and 15 MT of internal solid scrap to single batch size of 400 MT, which we upgraded to a furnace with more operational efficiency, having a significantly higher batch size of 430 MT, while keeping the solid scrap charge the same as 15 MT with upgraded air-fuel. This initiative boosted our energy savings in FY 2023-24 by 45,603 GJ, achieving a carbon emission reduction of 2,313 tCO_2e. We brought our recurring costs down prominently to ₹ 48.35 LNG/SCM, and our total costs saved this year saw a hike of ₹7.15 crore.

The benefits also included reduction in refractory erosion, a decrease in exhaust hood damage due to complete combustion and a reduction in furnace flue gas reduction. This initiative helped us increase solid charging in the anode furnace by 24 MT per heat and LNG consumption per tonne reduced by over 60%.

Installation of regenerative burners at Novelis plants

To optimise energy efficiency during the combustion of natural gas, we replaced the existing burners with modern combustion actuators at the Voerde and AluNorf plants. The new burners recover the heat from furnace waste gases and use it to heat the combustion air. This has helped reduce fuel consumption and thereby, emissions. The initiative has achieved reduction of 13.52 MWh/year in Voerde and 11.17 MWh/year in AluNorf.

Novelis has introduced modern combustion actuators at its Voerde and AluNorf plants which has reduced fuel consumption

Improving Ambient Air Quality

Air Emissions

As a responsible organisation, we acknowledge the significant role our smelting and refining activities play in generating air emissions. To mitigate the impact of pollutants and ensure compliance with air quality regulations, we have incorporated innovative technologies and process enhancements in our operations.

We have established Air Task Forces (ATF) comprising line managers on shop floors from various departments to monitor, track and take initiatives to minimise emissions. ATFs are responsible for conducting air emission inventory and air quality impact assessments, monitoring baseline air quality and reviewing the applicable regulatory requirements. Further, ATFs identify the mitigation measures and implement the air quality management plan. ATFs conduct monthly review meetings to discuss the projects and progress on the action plan. The review mechanism is further strengthened by updating the progress of these projects in the monthly sustainability board meeting with the MD and business heads.

Our stacks have an Online Continuous Emission Monitoring System (OCEMS) for regular tracking of emissions. We conduct regular audits to calibrate the OCEMS to ensure accurate and reliable data. Offline monitoring is also done through NABL-accredited third-party laboratories to improve our tracking processes. Since our upstream plants are a primary source of fugitive emissions, we routinely conduct air quality assessments using portable devices and monitor the Air Quality Index (AQI) to minimise impact and comply with regulations.

We have installed semi-dry flue gas desulphurisation plants at Aditya and Mahan and installation at Renusagar plant is in progress. This innovative solution has significantly enhanced ambient air quality by effectively removing sulphur emissions. It offers several advantages, including seamless integration with existing stack and boiler systems, reduced energy consumption and water usage compared to traditional wet FGD systems, and zero liquid waste. This technology enables us to minimise our environmental footprint while maintaining operational efficiency.

As part of our sustainability efforts, we are transitioning from furnace oil to natural gas at various smelters to reduce PM and Sox emissions. We also implement regular cleaning schedules for material handling areas, optimise vehicle movement patterns to reduce idling and congestion, and equip vehicles with emission control devices. In the reporting year, we undertook 33.24 acres of Miyawaki

plantation. In such plantations, saplings are planted closely together to receive sunlight from the top and grow upwards rather than laterally. The plants become self-sustainable and are 30 times denser which helps in reducing noise pollution and minimising dust dispersion.

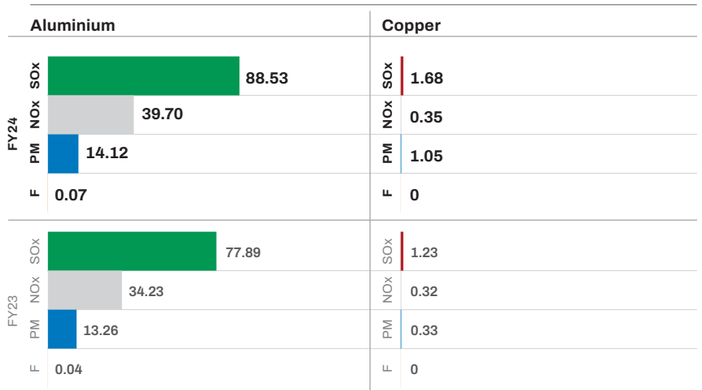
During the reporting period, our air emissions went up due to an increase in raw material consumption such as coal. Our Novelis Clayton plant which is no longer in operation, was issued an Administrative Order and Notice of Civil Administrative Penalty Assessment (AONOCAPA) by the New Jersey Department of Environmental Protection (NDEP) for multiple deviations reported between 2020 and 2023. These issues were related to air equipment removal efficiency and monitoring of Volatile Organic Carbon (VOCs). This violation resulted in a penalty of £26,640.

AIR EMISSIONS ('000 MT)

FY 2022-23 | FY 2023-24

	Hindalco India		Novelis	Total
	Standalone	Subsidiaries		
Oxides of Sulphur (SOx)				
FY 2022-23	72.63	6.49	0.15	79.27
FY 2023-24	**84.68**	**5.52**	**0.12**	**90.32**
Oxides of Nitrogen (NOx)				
FY 2022-23	31.38	3.17	2.30	36.85
FY 2023-24	**37.42**	**2.63**	**1.98**	**42.03**
Total Particulate Matter (PM)				
FY 2022-23	12.98	0.61	0.65	14.24
FY 2023-24	**14.67**	**0.50**	**0.74**	**15.91**
Fluoride				
FY 2022-23	0.04	-	-	0.04
FY 2023-24	**0.07**	**-**	**-**	**0.07**

AIR EMISSIONS
('000 MT)



SOx – Oxides of Sulphur | NOx – Oxides of Nitrogen | Total Particulate Matter (PM) | Fluoride

In addition to other air pollutants, the Novelis operations produced 1.87 KT of volatile organic compounds. We acknowledge the need to balance operational growth with environmental sustainability and continue to explore strategies to reduce our emissions at the Novelis operations, including:

Yeongju Plant

- Installation of Selective Catalytic Reduction (SCR) technology with a capacity of 1,066m^3/min in the new pusher furnace to remove NOx emissions. The technology converts the NOx emissions into harmless nitrogen and water using the catalyst system, which helps speed up the process.
- Installation of an electric furnace to check the foreign substance content, moisture, and organic content of UBC.
- Replacement of B/C fuel with natural gas in melting furnace burners.

Ulsan Plant

- Installation of a baghouse to treat the particulate matter before entering a scrubber. Baghouses are cost-effective and efficient dust collection systems. They work as an air pollution control device by capturing harmful particulates.
- Replacement of fume demister on an aluminium leveling line to decrease fugitive vapour leakage.

Zhenjiang Plant

- Installation of a new baghouse on an aluminium casting line. The new baghouse resulted in a decrease of particulate matter emissions from 20mg/m^3 to 10mg/m^3.

Water Stewardship

(Zero Liquid Discharge, Water Neutrality and Water Positivity)

Water Management

Our industry's inherent dependence on water makes us prone to water-related challenges and potential operational disruptions. Guided by Aditya Birla Group's Water Stewardship Policy and Hindalco's Environment Policy, we have undertaken positive strides towards minimising such risks and achieving effective water management. We are aligned to the NITI Aayog's water neutrality framework of 3M+7R (Map, Monitor, Measure + Reduce, Recycle, Recover, Replenish, Recharge, Rejuvenate, Recognise/Respect) to achieve operational excellence.

NITI Aayog's water neutrality framework

1. **Map**
   Map pool of freshwater, recycled and reused water
2. **Monitor**
   Monitor the quality of water discharged and recipient water bodies
3. **Measure**
   Measure the amount of water used
4. **Reduce**
   Reduce of use of freshwater
5. **Recycle**
   Recycle and reuse of treated waste water in the operations, horticulture, etc.
6. **Recover**
   Recover waste water
7. **Replenish**
   Replenish freshwater sources
8. **Recharge**
   Recharge freshwater sources
9. **Rejuvenate**
   Rejuvenate water bodies in watershed
10. **Recognise/Respect**
    Recognise and respect the limited availability of the freshwater

At all our plants, we have a Water Task Force (WTF), responsible for identifying the critical water-related focus areas, managing the physical, regulatory, and water-related risks, and developing a mitigation plan. The WTF comprises members from operations, utilities, and environment functions. It reviews performance at frequent intervals and report the same to the senior management and corporate sustainability team every month. The WTF also conducts training related to water management for all employees at the respective plants. To further propel water conservation, we have started a cross-functional water audit programme, where WTF members from one plant assess the performance of other units. The WTF members are trained and qualified subject matter experts on water management and conduct water-related audits. In the reporting year, we conducted cross-functional audit for Alupuram, Utkal, Renukoot, Silvassa and Asoj. With this effort, we have identified areas for improvement and implemented corrective measures.

Each plant has an annual target in alignment with our goal to achieve Zero Liquid Discharge (ZLD) status by FY 2025-26 for Aluminium business and FY 2029-30 for Copper business. We also have a target to achieve 20% reduction in specific freshwater consumption for aluminium by FY 2024-25 against the FY 2018-19 baseline.

To achieve our water conservation targets, we have developed a robust annual planning process at each plant and mine, where they set their own water management goals and strategies. This initiative has already yielded notable results, with 5 of our mines having earned water positivity certification from a third-party auditor. As we continue to advance our sustainability efforts, we are working towards achieving Scope 1 certification under the water neutrality framework outlined by NITI Aayog. To support this goal, we are establishing a comprehensive supplier assessment and tracking system that will foster a culture of responsible water management throughout our supply chain.

We have partnered with 11 startups to implement innovative water management solutions and have launched proof of concept with 6 of them. We have successfully completed pilot projects with 2 startups and plan to scale up the projects next year.

At Novelis, we conducted water surveys in FY 2023-24 which included water balances and utility water chemistry evaluation for European plants. Our North American plants were trained to use the Nalco Water Quality Intelligence Data Management tool. This digital solution offers real-time visibility and actionable insights into utility asset performance, empowering swift and targeted problem-solving to reduce downtime and increase efficiency.

HINDALCO

TARGETS

To achieve
20% ↓
in specific freshwater consumption by 2025 against the baseline of FY 2018-19.

To achieve
water positivity
across our mining sites by 2025 and across all our operations by 2050.

To achieve
Zero Liquid Discharge (ZLD)
status by FY 2025-26 for Aluminium business and FY 2029-30 for Copper business*.

PROGRESS

To achieve
8.46% ↓
in specific freshwater consumption for aluminium from FY 2018-19

Water positivity
- **Bagru** – 0.86 times
- **Netarhat** – 2.25 times
- **Pakhar** -1.87 times
- **Shredang** – 16.56 times
- **Samri** – 1.49 times

15/19
sites achieved ZLD

NOVELIS

TARGETS

To reduce water intensity by
10%
at all our operations by 2026 from the base year of 2020

PROGRESS

3% ↓
in water intensity from 2020

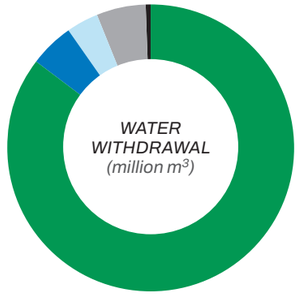
At Belagavi we have reduced dependency on specific water consumption by 27% from FY 2020-21 by reusing water

Water Withdrawal

Our primary sources for water withdrawal are surface water, groundwater, rainwater, and water from third parties.

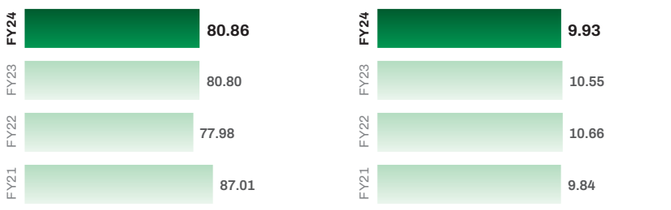
In FY 2023-24, we withdrew 90.79 million m³ of water out of which Hindalco's share was at 80.86 million m³ and Novelis' was at 9.93 million m³.

At the mines, our water withdrawal accounted for 0.51 million m³, out of which 50% was from surface water, 7% was from groundwater and 44% from other sources.



Surface Water	85.43%
Groundwater	4.93%
Seawater	3.72%
Third-party Water	5.63%
Rainwater	0.29%

WATER WITHDRAWAL
(million m³)



WATER WITHDRAWAL *(million m³)*

	Hindalco India		Novelis	Total
	Standalone	Subsidiaries		
Surface Water (A)				
FY 2022-23	67.7	6.00	2.96	76.66
FY 2023-24	**68.55**	**5.77**	**2.74**	**77.06**
Groundwater (B)				
FY 2022-23	0.1	0.1	4.44	4.64
FY 2023-24	**0.18**	**0.1**	**4.39**	**4.67**
Seawater (C)				
FY 2022-23	0.95	-	-	0.95
FY 2023-24	**3.49**	**-**	**-**	**3.49**
Third-Party Water (D)				
FY 2022-23	5.68	0.01	3.15	8.84
FY 2023-24	**2.49**	**0.01**	**2.8**	**5.3**
Total (A+B+C+D=E)				
FY 2022-23	74.43	6.11	10.55	91.09
FY 2023-24	**74.71**	**5.88**	**9.93**	**90.52**
Rainwater (F)				
FY 2022-23	0.21	0.05	-	0.26
FY 2023-24	**0.27**	**-**	**-**	**0.27**
Total Water Withdrawal (E+F)				
FY 2022-23	74.64	6.16	10.55	91.35
FY 2023-24	**74.98**	**5.88**	**9.93**	**90.79**

Note: We have restated the data for Novelis due to change in the calculation methodology

In our quest to anticipate and mitigate potential water-related risks, we employed WBCSD's India Water Tool (IWT) and WRI Aqueduct Tool to conduct a rigorous water risk assessment across all our plants. Our analysis included a range of critical factors such as baseline water stress, annual variability, seasonal variability, flood frequency, severity of drought, upstream storage, and groundwater stress. The outcome of this assessment revealed that 4 plants --Dahej, Belagavi, Asoj and Kuppam -- lie in water stress areas.

We have identified scenario-wise risks and their operational impact on each of the sites. The assessment found that there is a high risk of seasonal variability across our plants. To assess the seasonal variability in water availability, we considered scenarios such as flash floods, changes in rainfall patterns due to climate change, droughts, and a declining groundwater table.

To assess the future changes in water availability, we have comprehensive reports on the hydrogeological characteristics of the watershed, water levels in the CGWB wells in the vicinity, and rainfall predictions for the next 30 years for 4 of our plants: Utkal, Aditya, Hirakud, and Renukoot.

We periodically forecast the water cost to identify potential demand and supply changes and the impact of regulatory changes on the operations.

To minimise the impacts and safeguard our operations, we have taken mitigation actions such as building rainwater harvesting ponds, reservoirs, desalination projects, and reusing treated effluents. Through our CSR initiatives, we are working on watershed projects such as ridge-to-valley and sustainable agriculture to develop the resilience of the communities.

** Change in the target year from 2025 to 2026 for Aluminium business, due to acquisition of new plants of 2 new plants.*
Change in target year for Copper business from 2025 to 2030, as all the projects are in progress and commissioning will be completed in FY 2029-30.

WATER WITHDRAWAL FROM WATER STRESS AREAS *(million m³)*

FY 2022-23 | FY 2023-24

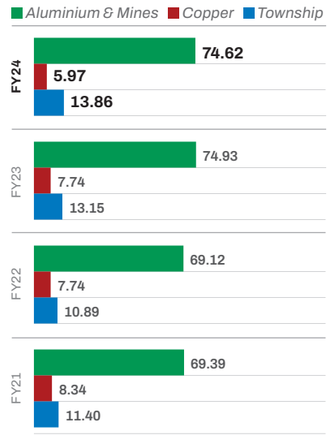
	Hindalco India		Total
	Standalone	Subsidiaries	
Surface Water (A)			
	0.95	-	0.95
	0.62		**0.62**
Groundwater (B)			
	0.03	0.10	0.13
	0.03	**0.10**	**0.13**
Seawater (C)			
	0.95	-	0.95
	3.49	**-**	**3.49**
Third-Party Water (D)			
	5.59	-	5.59
	2.38	**-**	**2.38**
Total water withdrawal (A+B+C+D)			
	7.52	0.10	7.62
	6.52	**0.10**	**6.62**

Water consumption

During the reporting period, we consumed 97.62 million m³, out of which 94.45 million m³ was at Hindalco and 3.17 million m³ at Novelis. In the water stress areas, we consumed 6.53 million m³ at Hindalco operations. Our water consumption at mines was at 0.51 million m³.

At Hindalco India (Standalone), our total water consumption was at 74.85 million m³, out of which 6.43 million m³ was consumed in water stress areas. In previous year our total water consumption was at 74.47 million m³, out of which 7.35 million m³ was in water stress areas. For our Hindalco India (Subsidiaries) the total water consumption was at 5.88 million m³, out of which 0.10 million m³ was consumed in water stress areas.

WATER CONSUMPTION HINDALCO - FRESHWATER AND RECYCLED *(million m³)*



The increase in the water consumption is due to increase in operating plants and large-scale construction works in to brownfield expansions and Capex projects.

Since cooling towers are a water-intensive process, we are taking concrete efforts to minimise water consumption and maximise recycling. We are reusing blowdowns as makeup water in our cooling towers after having them undergo tertiary treatment, such as reverse osmosis, membrane extraction, and membrane vaporisation. We treat and polish the water from sewage treatment plant and reuse it in cooling towers. Further, we have installed condensate recovery systems at our refineries to further optimise water usage. We have installed a dedicated tube settler to reuse the water used for sprinkling in the coal yard for the wheel washing system.

To minimise freshwater consumption, we use harvested rainwater in the operations. Our plants have also developed structures for rainwater and raw water storage with a total capacity of 20.8 million m³. In water stress areas, we constructed 2 check dams, repaired 2 canals, and excavated 3 ponds in the reporting year, which created 113,012.6 m³ of water storage capacity.

Consumption of desalinated water reduces freshwater use at Dahej

Our Dahej plant located in the Special Economic Zone (SEZ) of the Gujarat Industrial Development Corporation (GIDC) lies in a water stress area. GIDC withdraws water from the Narmada River which supplies to all the industries in the SEZ. To reduce dependency on surface water, GIDC initiated a common desalination project to use seawater. Hindalco has invested ₹114 crore in the desalination project against 10% share in the project. The project uses an RO membrane to recover industrial-grade water which is then stored in a reservoir and withdrawn by various industries.

For our copper operations at Dahej, we are permitted to withdraw and consume 10 KLD from the reservoir, which accounts for more than 50% of the water requirements. Using desalinated water in the operations has reduced our dependency on surface water and also reduced 50% of our specific freshwater consumption. This has also decreased our freshwater procurement cost from ₹50/m³ to ₹38/m³.

Renewal of cooling towers at Ohle plant

At the Ohle plant, we installed a new hybrid cooling system to reduce freshwater consumption from the Lenne River. The new system can operate at all temperatures without any restrictions.

In the summer, new vaporisation cooling towers supply the cooling system with cold water, and only the evaporation losses are replenished with fresh water. In the winter, cold water is provided from new closed-free cooling units without evaporation losses.

The system's installation has benefitted us with reduced noise levels, improved energy efficiency, and high reliability. This has also minimised the risk of icing the adjacent high-voltage lines from the evaporation of old cooling towers. From this initiative, we expect a freshwater reduction of approximately 290 m³/year.

Specific Water Consumption

The specific water consumption for our aluminium and copper operations stood at 50.70 m³/MT and 9.54 m³/MT. The 45% decrease in the specific water consumption for copper operations as compared to last year is due to an increase in withdrawal of desalinated water and commissioning of Tertiary Water Recycling Unit.

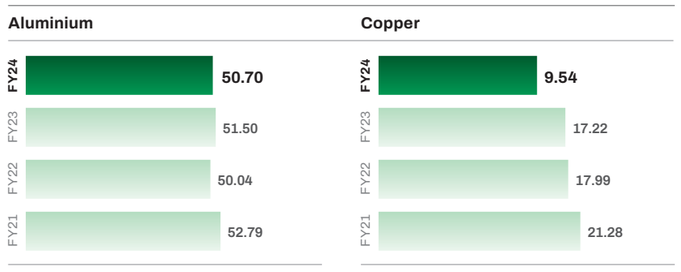
At Hindalco India (Standalone), the water intensity with respect to turnover accounted for 901.71 m³/₹ crore in the reporting period and 968.68 m³/₹ crore in the previous year. The water intensity per rupee of turnover adjusted for Purchasing Power Parity (PPP) for Hindalco India (Standalone) was 201.98 m³/$ billion compared to 214.76 m³/$ billion the previous year.

For Novelis, the water intensity accounted for 2.7 m³/MT of flat-rolled products.

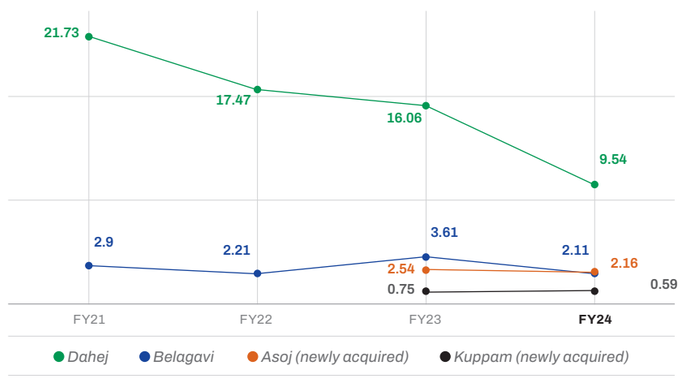
At Hindalco India (Standalone), the water intensity in water stress areas accounted for 0.0001 m³/ ₹ crore (turnover from the plants in the water stress areas) as compared to 0.0002 m³/ ₹ crore in the previous year. The water intensity in the water stress areas per rupee of turnover adjusted for Purchasing Power Parity (PPP) accounted for 22.95 m³/ $ billion in the reporting year and 19.79 m³/ $ billion in the previous year.

** PPP Conversion rate: FY 2023-24— -- 22.4, FY 2022-23 — 22.17*

SPECIFIC FRESHWATER CONSUMPTION *(m³/MT)*



SPECIFIC FRESHWATER CONSUMPTION IN WATER STRESS AREAS *(million m³/MT)**



Novelis installed a new hybrid cooling system at its Ohle plant to reduce freshwater consumption

Initiatives to reduce specific freshwater consumption (SFWC) in water stress areas

Dahej

We achieved a significant 60% reduction in freshwater consumption from FY 2018-19 (23.62 m^3/MT). This was primarily due to the commissioning of a desalination plant with GIDC, and the commissioning of a 2,000 KLD Tertiary water recycling unit plant with sea water RO membrane and a thermal evaporation system.

In FY 2024-25, we have taken 2 major water related projects.

1. Township STP upgradation (Conventional to MBR) with a capacity of 1,200 KLD. Once this project is commissioned, we will be able to use township STP treated water in our processes.
2. Green Tank project (2,400 KLD) is mainly to take care of the blowdown from all cooling towers. On completion of the project, we will be able to use 2,400 KLD water in our processes.

As a result of these 2 major water projects, we will be able to achieve a reduction of 3,600 KLD of freshwater intake from GIDC.

Belagavi

By optimising processes, implementing recirculation/recovery, and reusing water in the system, we reduced specific water consumption by 27% from FY 2020-21. Our deployment of digital flow meters and integrated dashboards has been instrumental in accounting for water distribution in the plant.

Asoj

Our Asoj plant was acquired in FY 2022-23 and has zero liquid discharge. To reduce freshwater consumption, we undertook process optimisation, such as digital monitoring and dashboards, and achieved a 20% reduction in SFWC.

Kuppam

At Kuppam, we have optimised the process by separating all the effluents for treatment. This comprehensive approach ensures that all water, including wastewater, is treated, and reused, thereby reducing our overall water consumption.

We are in the process of installing a modular-based MVR system at a Capex of ₹20 crore, to recover 20 kl water every day. This will be commissioned in FY 2024-25.

Additionally, In FY 2024-25, ₹75 lakh of Capex has been taken to construct groundwater recharge structures with a potential to recharge 12,500 kl of groundwater every year. Due to all these initiatives, we have achieved a 14% reduction in SWFC from FY 2022-23.

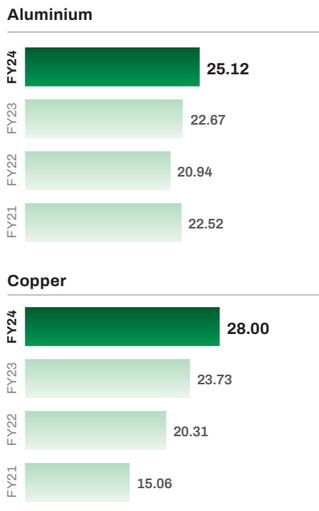
Water Recycling

We demonstrate our commitment to water stewardship through sustained efforts to recycle and reuse water in our processes.

In the reporting year, we recycled 18.91 million m^3 of water, of which 16.95 million m^3 was at aluminium operations with a recycling rate of 25.12% and 1.96 million m^3 at copper operations with a recycling rate of 28%.

To further reduce freshwater usage, we have implemented initiatives such as utilising recycled water in dust-suppression systems, wheel washing, cleaning, and toilet flushing thus, minimising our environmental footprint.

WATER RECYCLED
(%)



Initiatives to increase recycling and reuse of water

Silvassa Plant

At Silvassa, we have installed an effluent treatment plant (ETP) plant of 450 KLD and a ZLD plant of 30 KLD to treat the water from utility section, which was discharged earlier.

Taloja Plant

Water from the electrolysis process, emulsion plant, and press section was treated in ETP. We have installed a ZLD plant of 100 KLD to recover approximately 90% of the feed from the ETP, recycle and reuse it.

Ulsan Plant

We have installed a side stream filter at the 1,300-tonne cooling tower to reduce water discharge to the water treatment plant. The side stream filter reuses the blowdown water in the cooling tower.

This initiative will help us reduce 12% of the water sent to the treatment plant and, therefore, minimise the load on the use of freshwater.

Yeongju Plant

We installed a dissolved air flotation (DAF) treatment system on the cooling tower used for aluminium casting operations. The DAF continuously treats the recirculated cooling water to remove solid materials. The facility has reduced water makeup by 170 m^3/day and decreased water discharge by 100 m^3/day.

Dahej Plant

We have commissioned a 2,000 KLD TWRU plant to treat the wastewater earlier discharged into the sea. The initiative has helped treat 800-100m^3/day, at 50% operating capacity and recovered 95% of the RO reject, which is reused in operations.

At Dahej plant, we treat effluents from the copper smelter, refinery, and sulphuric acid plant in the effluent treatment plant. Earlier, freshwater was used consumed to clean the RVDF filter clothes. Now, we reuse effluent treated water to wash filter clothes.

As Dahej plant lies in a water-stress area, this initiative has helped us reduce the stress on freshwater by 600 KLD. Further, the reuse of ETP water is estimated to save approximately ₹2 crore.

Changzhou Plant

Freshwater was used in the forced circulation pump in the MVR (evaporator). To minimise consumption, we have installed a cooling tower at the end of the evaporator. The water from the cooling tank will be circulated to another cooling tank at the start of evaporation and used in the evaporator.

This initiative has reduced 12,000 m^3 of freshwater consumption.

Effluent Discharge

At Hindalco, we adhere to all the local laws and regulations, ensuring that our effluent discharge is treated before release. We are taking a proactive approach to reduce discharge, increase recycling and reuse, and minimise environmental impacts. We have already made significant strides by installing effluent and sewage treatment plants across our operations and aim to attain 100% zero liquid discharge.

Our Hindalco India (Subsidiaries) have achieved zero liquid discharge. At Renukoot, our sewage discharge accounted for 1,454,841 m^3 a decrease of 20% from the previous year. We faced 2 minor non-compliances at our Novelis plants for exceeding prescribed permits. Our Richmond plant exceeded its daily limit for oil and grease in its wastewater discharge on one occasion and our Berea plant received a violation of the quarterly storm water sampling requirements in its direct discharge permit. We took corrective actions immediately and the incidents did not result in fines.

Condensate handling system upgrade at Renukoot

During the alumina refinery process, 2 types of condensates (Grade A- conductivity<10m.mho/cm, Grade B- Conductivity>20m.mho/cm) are generated through digestion and evaporation. Earlier, these condensates were utilised for heat recovery in the boiler and co-generation process and further used in the refinery in a pan filter to wash alumina hydrate for caustic recovery. We traced their uses to utilise all the condensates in the boiler and co-gen processes. We replaced the grade A condensate produced by the digestion unit with grade B produced by the evaporation unit for the pan filter operation in the refinery. The grade A condensate was utilised in the boiler and co-gen processes. This replacement helped in DM feed water, which used to be fresh. We have further made modifications such as separating the condensates according to conductivity and grade, and utilising excellent condensate in the boilers and co-generation processes.

This initiative provided dual benefits of reducing freshwater consumption by 600 KLD and the load on ETP by 600 KLD.

WATER DISCHARGE IN WATER STRESS AREAS
*(million m^3) – **Hindalco India** (Standalone)*

	FY 2022-23	FY 2023-24
To seawater	0.17	0.09
No treatment	-	
With treatment	0.17	0.09
To third parties	0.002	0.002
No treatment	-	-
With treatment	0.002	0.002
Total water discharged	**0.17**	**0.09**

WATER DISCHARGED *(million m^3)*

	FY 2022-23			FY 2023-24		
	Hindalco India (Standalone)	Novelis	Total	Hindalco India (Standalone)	Novelis	Total
To surface water	-	2.86	2.86	-	3.93	**3.93**
No treatment	-	2.49	2.49	-	3.59	3.59
With treatment	-	0.37	0.37	-	0.35	0.35
To groundwater	-	0.43	0.43	-	0.17	**0.17**
No treatment	-	0.43	0.43	-	0.17	0.17
With treatment	-	-	-	-	-	-
To seawater	0.17	-	0.17	0.09	-	**0.09**
No treatment	-	-	-	-	-	-
With treatment	0.17	-	0.17	0.09	-	0.09
To third parties	0.03	-	0.03	0.01	-	**0.01**
No treatment	-	-	-	-	-	-
With treatment	0.03	-	0.03	0.01	-	0.01
To others	0.02	2.65	2.67	0.03	2.65	**2.68**
No treatment	-	-	-	-	-	-
With treatment	0.02	2.65	2.67	0.03	2.65	2.68
Total water discharged	**0.22**	**5.94**	**6.16**	**0.13**	**6.75**	**6.88**

Hindalco has set a target to achieve Zero Waste to Landfill by 2050

Circular Economy, Recycling and Zero Waste to Landfill

Raw Material Management

At Hindalco, we are dedicated to optimising production efficiency and minimising environmental footprint through effective raw material management. We are committed to enhancing circularity throughout our operations and value chain.

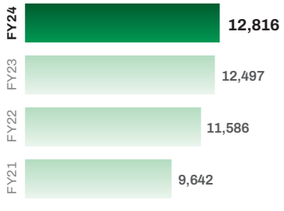
In Novelis, we made significant strides in reducing waste and increasing the use of recycled materials. We consumed 2,316 KT of recycled metal, including over 82 billion used beverage cans, achieving 63.10% recycled content in our products. In addition, we leveraged 1,446 KT of other materials, encompassing primary sheet ingots and alloys. To further reduce our reliance on primary raw materials and lower our carbon footprint, we are increasingly utilising low-carbon primary aluminium produced using renewable energy sources (primarily hydropower) for smelting.

During the reporting period, Hindalco operations consumed a total of 12,816 KT materials. The 2.55% increase in consumption is a direct result of our business expansion and increase in production. Our associated process materials accounted for 14,353.04 MT which include alloying elements, oils, hot rolling oils, cold rolling oils, solvents, and lubricants. The process material contributed to 0.11% of the total material consumption. For packaging purposes, we consumed 105.42 KT of wood, 1.51 KT of paper and 3.38 KT of other materials.

About 2.44% of total input material from aluminium scrap was recycled and reused for Hindalco India (Standalone) and Hindalco India (Subsidiaries).

In Hindalco India (Standalone), 5.62% of the total input material from aluminium scrap was recycled and reused, compared to 4.39% in the previous year.

RAW MATERIAL CONSUMPTION
('000 MT)



MATERIAL CONSUMPTION – HINDALCO
(KT)

	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Bauxite	8,097.12	9,598.77	10,386.72	10,637.86
Aluminium fluoride	17.82	21.78	18.27	16.40
Calcined petroleum coke	447.70	465.67	497.59	513.46
Caustic soda	206.24	254.36	254.23	275.41
Pitch	100.69	137.77	112.30	113.10
Ammonia	1.02	0.02	-	0.03
Copper Concentrate	770.90	1,108.06	1,227.62	1,149.17

Waste Management

Guided by Hindalco's sustainability and environmental policies, we have implemented a holistic waste management strategy that covers the entire value chain. In line with the strategy, our supplier code of conduct ensures that upstream suppliers adhere to proper waste management practices throughout the value chain. Our approach is built on a foundation of adherence to regulatory requirements, continuous improvement in waste management practices, and awareness creation across the value chain. We also foster partnerships with regulatory bodies, suppliers, contractors, distributors, and other stakeholders to propel sustainable actions.

We conduct audits of waste disposal facilities every 3-5 years based on the level of risk and processed volumes. At Novelis, the audit is based on the guidelines provided by the Waste Performance Standards.

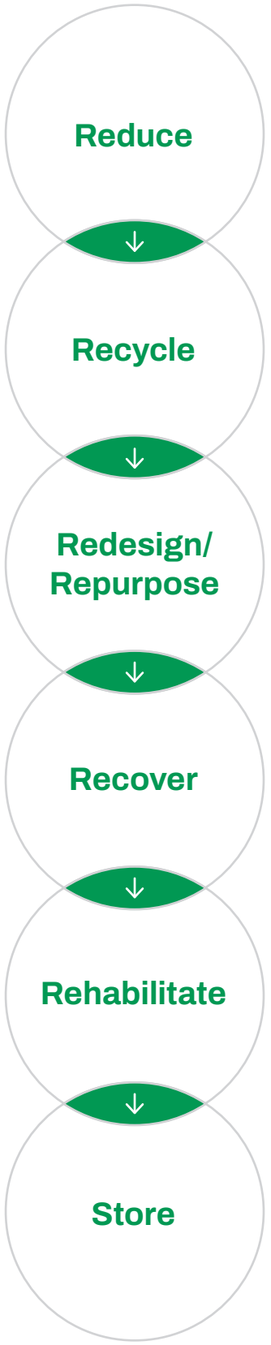
Our waste management strategy is underpinned by the 5R+1S approach – Reduce, Recycle, Redesign, Recover, Rehabilitate and Store – which aligns with our policies and UN SDG 12. All our practices are aligned with our strategic goal of becoming Zero Waste to Landfill by 2050. At every stage of the value chain, we strive to reduce the waste footprint by improving the efficiency of existing technology and integrating new technology in the production process. Our efforts have yielded significant results, with 5 of our sites -- Belur, Hirakud Power, Hirakud FRP, Ohle, and Nachterstedt-- achieving third-party accreditation for Zero Waste to Landfill.

In addition to our operational efforts, we also invest in research and development initiatives to minimise waste reduction.

In the reporting year, we dedicated ₹93 lakh towards waste management-related research and development, and we invested ₹483.27 crore in operating expenses. This investment will enable us to stay ahead of the curve in creating a greener future.

Hindalco is reusing bauxite residue and plastic waste to develop polymer composites; creating wealth from waste

Our waste management strategy



HINDALCO

TARGETS

To achieve
Zero Waste to Landfill
by 2050

Interim Target: To achieve
Zero Waste to Landfill
by 2030

PROGRESS

3 sites
achieved Zero Waste to Landfill
(Belur, Hirakud Power, Hirakud FRP)

16
single-use plastic-free sites till date
(15 plants, 1 mine)
3 sites in the reporting period

85%
recycling of non-hazardous and hazardous waste

NOVELIS

TARGETS

To reduce waste-to-land fill intensity by
20%
by 2026 from 2020

PROGRESS

8% ↓
in waste to landfill intensity from the baseline

2 sites
achieved Zero Waste to Landfill
(Ohle and Nachterstedt)

Hindalco's Waste Management Taskforce (WaMTF) is responsible for implementing the 5R+1S waste management approach, adhering to legal compliance, identifying risks, and collaborating with stakeholders to develop and implement waste disposal strategies. Waste management-related training is conducted periodically by this taskforce at plants. The WaMTF comprises taskforce leader, convenor, and other team members. The Unit WaMTF convenes monthly to review waste management practices, ensuring that we stay aligned with our commitments and continue to drive progress. The Corporate Sustainability team reviews the progress on half yearly basis.

1. **Taskforce Leader**
   - Strategic planning and decision making for achievement of goals
   - Review of the progress towards goals
2. **Taskforce Convenor (Unit Sustainability Head)**
   - Organising and scheduling internal meetings
   - Tracking and action planning of the progress towards the goals
   - Maintaining the taskforce's operational efficiency
3. **Team members**
   - Implementing of industry best practices to achieve zero waste to landfill
   - Providing technical expertise on waste management
   - Collaborating with stakeholders such as startups, institutions, prospective users and regulatory authorities

We have developed SOPs for managing and storing hazardous materials. The procedures ensure that the transportation of these materials is carried out with utmost safety and care. To maintain the highest level of compliance, our WaMTF members conduct regular checks and evaluations to promote responsible management of hazardous waste. Through internal audits and inventories, our task force members identify opportunities for improvement, ensuring that waste is properly segregated from the source, thus minimising risks. By fostering a culture of accountability and continuous improvement, we uphold the highest standards of waste management.

At Novelis, we have a global committee which is responsible for developing, implementing, and monitoring waste management policies and procedures. The committee is composed of representatives from production, engineering, environment, and sustainability functions.

At Novelis, all the waste-related data is entered into the EtQ management database monthly. The corporate EHS team validates the quarterly entries and conducts annual onsite audits of the Performance Standards. We also conduct audits of our waste disposal facilities every 3-5 years based on the level of risks and processed volumes.

We conduct periodic impact assessment studies related to materials, waste, spills, and leakages at all our plants across Novelis. These studies are an integral part of our environment management system as they allow us to determine potential issues before they escalate, reassure stakeholders about our commitment to safety and environmental protection. Basis the insights of the studies, we identify and implement mitigation strategies at each plant. This includes optimising waste storage areas and undertaking research initiatives to drive innovative solutions in waste management.

In FY 2023-24, we generated 13.08 million MT of waste, of which 12.71 million MT was generated by Hindalco and 0.37 million MT by Novelis. Of the total waste generated, we diverted 85% of the waste from disposal.

Novelis recycles 82 billion cans a year

WASTE GENERATED

0.58 million MT
Hazardous Waste

12.50 million MT
Non-hazardous Waste

WASTE DIVERTED FROM DISPOSAL

11.15 million MT
Waste recycled (85%)

0.01 million MT
Waste Incinerated

0.27 million MT
Waste Sent to Landfill (2%)

WASTE DIVERTED TO DISPOSAL

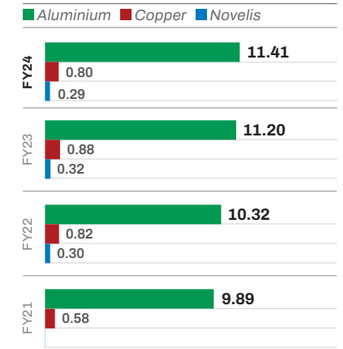
In our aluminium and copper operations, we generate a range of significant waste materials, including bauxite residue, ash, spent pot lining, aluminium dross, and vanadium sludge. Our copper operations also produce substantial quantities of copper slag. At Novelis, our primary waste streams comprise dross, salt cake, filter waste, baghouses waste, and waste refractory materials.

WASTE GENERATION *(tonnes)* — FY 2022-23 | FY 2023-24

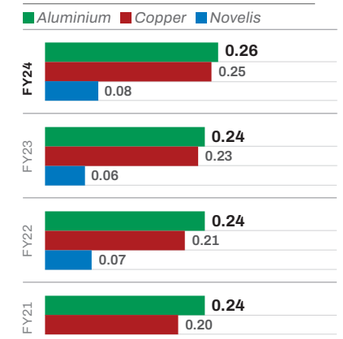
	Hindalco India		Novelis	Total
	Standalone	Subsidiaries		
Plastic waste				
	2,383.42	23.32	-	2,406.74
	2,138.89	**22.78**	**-**	**2,161.67**
E-waste				
	192.87	2.63	-	195.50
	212.74	**4.89**	**-**	**217.63**
Bio-medical waste				
	14.19	2.80	-	16.99
	15.54	**4.69**	**-**	**20.23**
Construction and demolition waste				
	769.49	-	-	769.49
	305.28	**-**	**-**	**305.28**
Battery waste				
	107.79	3.52	-	111.31
	128.28	**0.54**	**-**	**128.82**
Radioactive waste				
	-	-	-	-
	-	**-**	**-**	**-**
Municipal Solid Waste				
	3,811.35	-	-	3,811.35
	3,330.39	**-**	**-**	**3,330.39**
Other Hazardous waste				
	476,631.24	171.22	57,936.00	534,738.46
	503,335.66	**406.68**	**79,178.87**	**582,921.21**
Other Non-hazardous waste generated				
	8,850,800.00	3,228,949.38	322,737.00	12,402,486.38
	8,939,447.76	**3,263,390.71**	**294,957.07**	**12,497,795.54**
Total waste generated				
	9,334,710.35	3,229,152.87	380,673.00	12,944,536.22
	9,448,914.54	**3,263,830.29**	**374,135.94**	**13,086,880.77**

At our bauxite and coal mines, we generated 105.36 MT waste out of which 64.59 MT was hazardous waste and 40.77 MT was non-hazardous waste.

NON-HAZARDOUS WASTE *(million MT)*



HAZARDOUS WASTE *(million MT)*



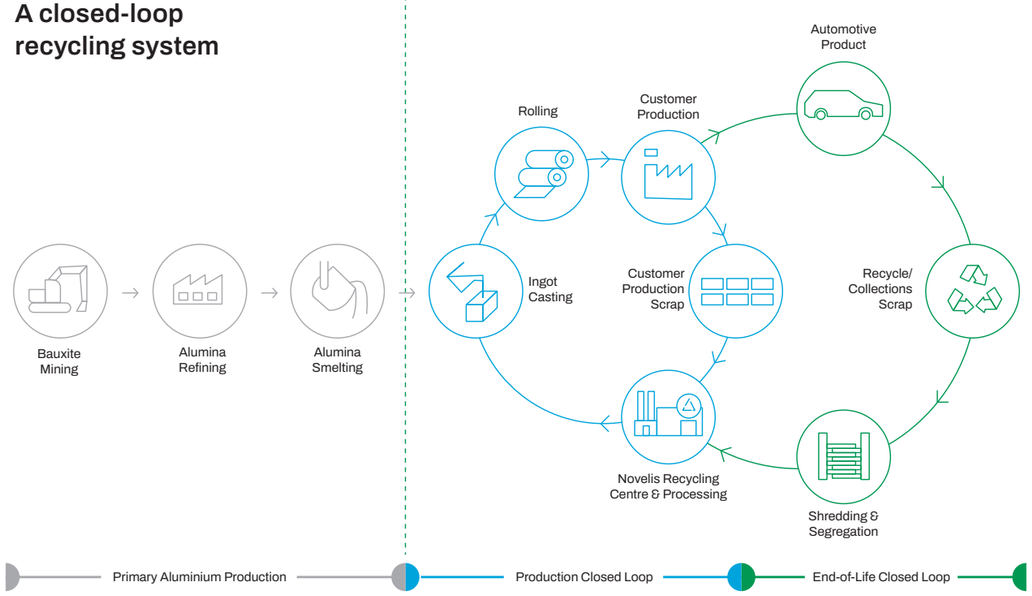
In FY 2023-24, waste intensity of Hindalco India (Standalone) was 113.83 MT/₹ crore (turnover) compared to 121.42 MT/₹ crore in the previous year. The waste intensity per rupee of turnover adjusted for Purchasing Power Parity (PPP) is 25.50 MT/$ billion compared to 26.92 MT/ $ billion in the previous year*. The waste intensity for aluminium operations accounted for 6.31 MT/ MT of primary aluminium production in the reporting year and 6.22 MT/ MT of primary aluminium production in the previous year. The waste intensity for copper operations accounted for 2.83 MT/ MT of copper cathode production in the reporting year and 2.73 MT/ MT of copper cathode production in the previous year. For Novelis, the waste-to-landfill intensity accounted for 23.63 kg/ MT FRP.

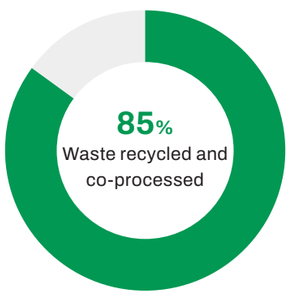
** PPP Conversion rate: FY 2023-24— -- 22.4, FY 2022-23 — 22.17*

Closing the Loop for a Better Tomorrow

At Novelis, we are revolutionising the recycling landscape by harnessing the full potential of aluminium's recyclability. We transform scrap aluminium from suppliers into high-quality sustainable products. By partnering with leading Original Equipment Manufacturers (OEMs), we are creating a closed-loop recycling system which reduces waste, conserves natural resources and ensures a consistent supply of materials.

A closed-loop recycling system





At our operations, 85% of our waste is recycled and co-processed. The non-hazardous waste such as bulk waste, is sent to cement industries, authorised recyclers, and re-processors. Aluminium Dross and Vanadium sludge are sent to authorised re-processors for metal recovery. other wastes, such as plastic, battery, biomedical, and municipal solid waste are sent to Central and State Pollution Control Boards authorised recyclers.

Around 68.76 MT of hazardous waste and 40.77 MT non-hazardous waste generated at the mines is sent to the authorised recyclers. This also includes the waste stored in approved structures.

NON-HAZARDOUS WASTE *(million MT)*

FY 2020-21 | FY 2021-22 | FY 2022-23 | FY 2023-24

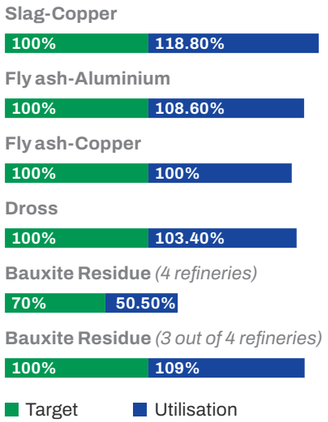
	Hindalco + Novelis	Hindalco India Standalone	Hindalco India Subsidiaries	Novelis	Total
Recycled and reused					
	9.31	10.321	0.396	0.290	11.007
	9.90	**9.995**	**0.422**	**0.260**	**10.677**
Landfill/TSFD					
	0.01	0.002	-	0.026	0.028
	0.03	**-**	**-**	**0.029**	**0.029**
Stored in approved structures					
	2.14	-	2.200	-	2.200
	2.31	**-**	**2.602**	**-**	**2.602**
Incineration					
	-	-	-	0.002	0.002
	-	**-**	**-**	**0.007**	**0.007**
Total					
	11.46	10.323	2.596	0.318	13.237
	12.24	**9.995**	**3.024**	**0.296**	**13.315**

HAZARDOUS WASTE *(million MT)*

FY 2020-21 | FY 2021-22 | FY 2022-23 | FY 2023-24

	Hindalco + Novelis	Hindalco India Standalone	Hindalco India Subsidiaries	Novelis	Total
Recycled and reused					
	0.28	0.363	-	0.050	0.413
	0.41	**0.405**	**-**	**0.072**	**0.477**
Landfill/TSFD					
	0.08	0.116	-	0.006	0.122
	0.13	**0.240**	**-**	**0.005**	**0.245**
Stored in approved structures					
	0.08	0.004	-	-	0.004
	0		**0.001**	**-**	**0.001**
Incineration					
	-	0.002	-	0.002	0.004
	-	**0.001**	**-**	**0.002**	**0.003**
Total					
	0.44	0.485	-	0.058	0.543
	0.54	**0.646**	**0.001**	**0.079**	**0.726**

UTILISATION OF WASTE *(%)*



At the Novelis Pinda plant, we have supplier orders to process sludge from water and wastewater treatment plants as well as compost organic and tree-pruning waste. This has diverted 320 tonnes of sludge and 7 tonnes of organic and tree-pruning waste from landfills we use recyclable aluminium coil cores to replace cardboard ones.

At Hindalco, we collaborate with customers to recycle and reuse cardboard core and wooden pallets.

We are registered as brand owners under the Plastic Waste Management Rules and comply with the Extended Producer Responsibility (EPR) guidelines. As per the guidelines, our target was 70% for FY 2022-23 and 100% for FY 2023-24. In the reporting period, we recycled around 5,166.9 MT of reclaimed waste.

UTILISATION OF RECLAIMED WASTE *(MT)*

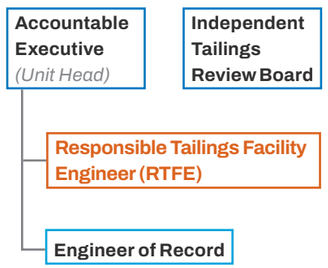
	FY 2022-23	FY 2023-24
Plastics (including packaging)		
Hindalco India *(Standalone)*	3,060.52	**5,076.20**
Hindalco India *(Subsidiaries)*	24.37	**90.70**

Tailings Management

We are dedicated to implementing best practices in tailings management to ensure the safety of employees, communities, and the environment across the value chain. Hindalco's Tailings Management Policy is aligned with the Global Industry Standard on Tailings Management (GISTM) and covers all the tailings storage facilities under its purview. Our key commitments are prioritising safety, adhering to national and international standards, conducting geotechnical assessments, implementing robust risk assessment and emergency preparedness to minimise the environmental impact through sustainable practices and continuous research and development.

We have a Responsible Tailing Facility Engineer (RTFE) at each plant responsible for tailing facility management and reports to the Accountable Executive (Unit Head). The TFEs have conducted risk assessments for each site and classified consequences based on the GISTM consequence matrix. Out of the 19 tailings facilities, 3 are at high risk, and 2 are at significant risk. Considering the risk, we have implemented mitigation actions and prepared an emergency response plan for all the facilities.

We have established mechanisms that promote cross-functional collaboration to ensure effective data and knowledge sharing, communication, and implementation of management measures to support public safety and the integrity of the tailings facility.



Tailings risk potential	Total number of facilities	Number of facilities identified as 'high-risk potential'	Percentage of high-risk potential sites
Active facilities	6	3	50%
Inactive facilities *(including facilities in care and maintenance or closed)*	13	0	0
Planned facilities	1	0	0

Mineral Waste Management

Our mineral waste consists of overburden and bauxite residue, which we strive to reduce by implementing innovative recycling and reuse strategies. Bauxite residue is repurposed in cement production, where it is used to manufacture paver blocks, tiles, and bricks. In addition, we utilise the residue to backfill mines, thereby reducing the need for external fill materials and minimising environmental disturbance.

MINERAL WASTE
(million MT)

	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Waste Rock generated	13.00	23.03	20.79	19.56
Tailings Generated	4.07	4.68	5.08	5.25
Waste reused/ repurposed	15.53	25.41	23.67	22.21
Waste Disposed	1.54	2.30	2.20	2.60

Reusing plastic waste and bauxite residue to develop polymer composites at Belagavi

We are collaborating with IIT Bombay to reduce waste disposal by using bauxite residue and plastic waste to manufacture polymer composites. With the support from the Department of Science and Technology, Government of India, IIT Bombay has developed a technology to melt-mix plastic waste with inorganic fillers like bauxite residue. The pilot setup includes a shredder, a mixer/preheater, and an extruder, which processes the plastic waste and bauxite residue into fresh filler composites. These composites are then formed into products such as paver blocks, tiles, and bricks, which can be used in construction. Our current priority is to scale up this project.

Installed vacuum-belt-filter technology to treat decoater-dust

At the Nachterstedt recycling plant, the decoating of aluminium scrap contributes to dust generation. Dust is one of the major wastes, and around 65% to 70% is sent to landfill. Due to the reactivity of the dust, sand and water are applied during the process.

To minimise the waste sent to landfill and use sand and water in the processes, we have developed and installed vacuum-belt-filter systems at all the lines. This initiative has decreased the amount of sand and water required to suppress the dust, making the dust structure drier than before. It has reduced 1,000t/year-1,500t/year of water consumption and has minimised the ignition risks due to the dust's reactivity.

Hindalco's Dahel plant is sending ETP sludge to cement industries for co-processing, thus carving a path to achieve zero waste to landfill

Utilisation of ETP sludge in cement industries at Dahej

Gypsum, a hydrated calcium sulphate mineral, is used as a retarding agent in cement manufacturing. Its primary function is to regulate the setting time of cement, thus providing a necessary working/application time. Additionally, gypsum enhances the hydration of elite (C3S), leading to increased early strength and reduced shrinkage of the cement.

By optimising gypsum usage based on comprehensive analysis and addressing challenges associated with the handling and storage of chemical gypsum, the cement manufacturing plant achieves:

- Improved cement quality and properties, including enhanced early strength and reduced shrinkage.
- Enhanced production efficiency and cost-effectiveness through precise gypsum dosing.
- Compliance with environmental regulations by implementing proper storage and disposal measures for hazardous materials.

By utilising gypsum in the co-processing plants, we have reduced the amount of waste sent to disposal and reduced the cost of disposing sludge.

Project SAAHAS – Municipal Solid Waste (MSW) Management at Belagavi and Muri

The primary goal of project SAAHAS is to develop a sustainable waste management solution to achieve "zero waste" by focusing on maximum resource recovery.

In Belagavi, we invested ₹45 lakh in Capex and ₹35 lakh in Opex to install various equipment, including a vessel composter, dry waste sorting table, wet waste sorting table, weighing machine, and mulching units.

The initiative involved collecting waste at the source, segregating waste it into different categories, and processing it. All the dry waste was segregated into different categories and sent to the end destination.

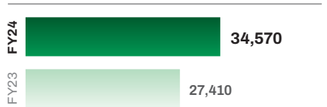
The wet waste was processed in the vessel composter, and the resulting manure was used for gardening, thus demonstrating a sustainable and environmentally responsible use of waste.

Installation of Organic Waste Converter (OWC) at Baphlimali bauxite mines

To manage the food waste generated at our mines, we installed a converter which processes segregated organic waste to good-quality compost in less time. The process commences with the separation of organic waste from other waste streams. The organic waste acts as a feed to the OWC machine. Once the feed is added, the machines run for 24 hours, wherein the waste is homogenised as flowable raw compost ready for curing. After the raw compost is collected, bioculum and absorbent is added, and compost is kept in the curing rack for 10 days, after which it is ready to be used.

The OWC has helped us divert 34,570 kg of waste from landfill in the reporting year.

ORGANIC WASTE TREATMENT THROUGH OWC
(kgs)



Sustainable Mining

Hindalco owns and operates 20 plants and 23 mines (one mine yet to be operationalised) across India. We are committed to responsible mining practices and ensuring that all our operations uphold the highest standards of environmental and social responsibility.

To achieve this vision, we launched a Sustainable Mining Charter (SMC) in 2021, which serves as a guiding framework for our transition from compliance-driven to sustainability-focused operations. Built on the pillars of environmental stewardship, social stewardship, and governance excellence, the SMC has 7 key focus areas that drive our efforts towards a more sustainable future.

Environmental Stewardship

- Sustainable Land Use
- Water Stewardship
- Waste Management
- Emissions Reduction
- Biodiversity Management

Sustainable Mining Framework

Governance Excellence

- Governance organisation
- Sustainability Scorecard
- Reporting and Analytics

Social Performance Leadership

- Health and Safety
- Local Economic Development

One of the key pillars of our SMC is sustainable land use, which delineates our comprehensive approach to managing the entire mine-lifecycle. Recognising the impact of mining on the environment, we have developed a holistic strategy to minimise disturbance and mitigate potential risks. The life cycle approach enables us to anticipate and address potential environmental and social concerns. The collaborative approach enables us to develop effective mitigation strategies that balance the needs of our business with the well-being of the surrounding environment and community.

We focus on 2 critical aspects of mine closure: progressive and end-of-life mine closure. Our progressive approach ensures that we prepare for mine closure from the outset, developing a plan that reduces the environmental impact of our operations. By implementing this plan throughout the mine's lifecycle, we aim to minimise the disruption to ecosystems.

Our end-of-life mine closure approach is designed to rehabilitate disturbed land and ensure that the rehabilitation adheres to all legal requirements.

This is achieved by taking into consideration economic, budgetary, environmental, social, and cultural factors. Depending on characteristics of each mine, its physical or biological rehabilitation is carried after the closure.

We have developed closure plans for all our mines and are committed to implementing these according to schedule. This approach ensures that our mines are closed in a responsible manner, and risk of environmental harm is minimised.

End-of-life mine closure approach

1. **Pre-mining**
   - Develop socio-economic baseline studies
   - Plan mining activities
   - Create mine closure plan and activities
2. **Mining**
   - Implement progressive reclamation of land
   - Monitor stability and impact of operations
   - Deploy mechanisms to ensure safety
3. **Mine Closure**
   - Land enrichment goals and targets
   - Environmental baseline with associated risks and mitigation plans
   - Mine closure monitoring with regular reviews
   - Handover

MINING AREA DETAILS
(Ha)

Parameter	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Total mining area leased (operational)	9,133.00	8,569.00	7,474.99	8,698.77
Total area mined	80.00	106.00	104.10	125.84
Total area reclaimed	86.00	92.00	117.87	83.94
Total area rehabilitated	57.00	85.00	62.22	59.86

At Hindalco, we are dedicated to rehabilitating our mines and transforming them into thriving ecosystems. One example of an innovative project that we have taken is to set up a coffee plantation on reclaimed land. This first-of-its-kind initiative, in an Indian Bauxite mine, provides a new source of income for farmers, contributes to the local economy, and promotes social responsibility. To diversify the rehabilitation, we have also developed fruit-bearing orchards and herbal plantations on the reclaimed area.

Zero emission surface runoff rainwater harvesting at Baphlimali mines

We undertook an initiative to minimise surface water consumption by harvesting surface runoff. While designing the collection tank, we considered the topography and elevation of the mine so that runoff water could be collected without using electricity.

The initiative provided various benefits, including:

- ~142,940 kl of freshwater water consumption was reduced.
- Due to the low turbid run-off water, the total suspended particles of intake surface water reduced from 285 mg/l to 40 mg/l, making it suitable for domestic use. This also helped increased WTP efficiency.
- In the past 3 years, around 771,451 kWh energy has been conserved, avoiding 655,734 kgCO_2e.

The initiative led us to cost savings of ₹4,800,918 for tangible benefits and ₹4,229,484 for intangible benefits (considering the cost of 1 tonne CO_2 in India is ₹6,450)

	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Reduction in intake water quantity (kl)	12,970	30,150	46,780	**53,040**	**142,940**
Conservation of Energy (kWh)	70,000	162,722	252,472	**286,257**	**771,451**
Carbon Footprint (kg CO_2 equivalent)	59,500	138,314	214,601	**243,319**	**655,734**
Cost reduction in INR	366,899	852,893	2,080,730	**1,500,396**	**4,800,918**

Project Vivartana at Lohardaga

The Vivartana project was launched in Lohardaga to tackle the widespread spread of Lantana and to create sustainable economic opportunities for local communities. Lantana species are known for their highly invasive nature, rapid dominance, and competitive suppression of native flora. Additionally, they have been found to significantly alter soil attributes, hindering the growth of indigenous species. An approximately 400-hectare area adjacent our mines was affected by its invasion. By working with local communities, the removal of Lantana and its subsequent drying were carried out to produce raw materials for various products. This effort led to an annual production of around 60 metric tonnes of biomass, which was used in handicrafts, bio-composites, gasification, and thermal plant biomass.

Importantly, this initiative helped to prevent an estimated 10 tonnes of virgin plastic from being dumped in landfills every year. Additionally, it created sustainable livelihoods for approximately 150 community members, generating a total income of around ₹75 lakh.

No Net Loss to Biodiversity

Biodiversity Management

Recognising the significance of ecosystem services, we prioritise biodiversity management and stakeholder engagement as integral components of our operations. We strive to optimise the benefits we derive from these ecosystems while minimising our environmental footprint. Our business activities rely heavily on provisioning services such as water, fuels, and raw materials while also impacting, regulating, and supporting services like air quality, climate, and water.

To mitigate these impacts, we are committed to achieving No Net Loss (NNL) by 2050, aligned with the Kunming Montreal Global Biodiversity Framework (KMGBF). We have set short-, medium- and long-term targets to achieve NNL and contribute towards the UN Decade of Ecosystem Restoration.

No Net Loss by 2050

The integrity, connectivity, and resilience of all degraded ecosystems/habitats near our area of operation are to be restored by at least 10% by 2030, 40% by 2040 and 100% by 2050 considering baselines set by the Biodiversity Management Plans in each of our operating sites.

MEDIUM TERM

Replace 90% of invasive species with native species in our areas of operation

Restore habitat of 10% of area of operation

Plant atleast 6 million trees by 2030 (1 million trees per year)

Develop at least 10 community biodiversity livelihood programmes

Achieve No Net Deforestation by 2030

Hindalco's cumulative green area plantation went up to 5,705 acres

Guided by our Biodiversity Policy, which aligns with Aditya Birla Group's technical standards, we have developed a comprehensive approach to biodiversity management. It applies to all plants, mines, and supply chain partners.

Our screening process commences with an initial assessment using the IBAT tool, categorising sites as high, medium, or low priority based on the presence of key biodiversity areas [Key biodiversity areas have Rare, Endangered and Threatened (RET) species]. We then focus on high-priority sites with crucial biodiversity areas within a 10 km buffer zone and medium-priority sites with RET species in the same radius.

Of our 41 operating sites, 4 plants and 7 mines have been designated as high-priority sites. We have developed Biodiversity Management plans for 21 high and medium priority sites and will cover the rest by FY 2024-25.

This holistic approach ensures that our operations are environmentally sustainable, socially responsible, and economically viable. By integrating biodiversity management into our core business strategy, we are committed to preserving the natural world for future generations while driving long-term growth and success.

OPERATING SITES WITH BMPS

	Number	Operational Areas (hectares)
Total own operational sites	41	14,115.09
Own operational sites where biodiversity impact assessments are conducted	41	14,115.09
Own operational sites in close proximity to critical biodiversity	28	8,448.00
Own operational sites in close proximity to critical biodiversity and for which biodiversity management plants are prepared	17	7,596.59
Other low-priority sites for which biodiversity management plans are prepared	3	3,141.62

Our biodiversity management plans go through a multi-fold assessment before they are finalised and implemented. Initially, we engage and consult with all the relevant stakeholders to incorporate diverse perspectives in the decision-making process. After the engagement, we conduct a comprehensive biodiversity assessment and ecosystem review, which includes identifying key species, habitats, ecological processes, and ecosystem services to understand the existing status of the ecosystem.

In partnership with the International Union for Conservation of Nature (IUCN) and other reputed agencies, we conduct a comprehensive, multi-season study to assess the impact of our operations on biodiversity. Using the IBAT tool and a location-specific approach, we identify dependency and impact-related biodiversity risks.

We also communicate the key findings of our studies to all the stakeholders through Integrated Annual Report and other online platforms. Our task forces implement site-specific mitigation actions, including avoiding sensitive habitats, establishing buffer zones, and leveraging environment-friendly technologies.

Taskforce on Nature-related Financial Disclosures (TNFD)

At Hindalco, we have begun adopting the TNFD recommendations. As an early adopter, we have utilised the Locate-Evaluate-Assess-Prepare (LEAP) approach to assess site-level dependencies, impacts, risks, and opportunities. Our assessment began by mapping all our operations and evaluating the provisioning and regulating ecosystem services. Through this process, we identified risks such as the depletion of water resources, which affects the availability of water for local communities, pollution of water bodies, and emissions from operations leading to air pollution, causing health issues for employees and local communities. To mitigate the risks, we have identified opportunities, such as alternate innovative sourcing initiatives and investments in ecosystem restoration.

By adopting the LEAP approach, we have taken a proactive stance in managing our interactions with nature. This not only supports the health and resilience of the ecosystems we depend on but also enhances our long-term business sustainability.

By regularly monitoring biodiversity indicators, ecosystem health, and stakeholder feedback, BMPs can identify emerging issues and site-specific mitigation actions that address unique challenges of each location and evaluate their effectiveness. We have also developed mitigation hierarchy to minimise the impacts and contribute to the long-term health of ecosystems.

Mitigation hierarchy

1. **Avoid**
   - Avoid operating in ecologically sensitive areas and in critical habitats
   - These include World Heritage sites and IUCN Category I-IV protected areas
2. **Minimise/Reduce**
   - Minimise the impact on biodiversity by transplanting trees
3. **Regenerate**
   - Launch biodiversity livelihood programmes such as organic farming and orchard development for the community
4. **Restore**
   - Develop and restore green belts by planting native species
   - Enhance the quality of green belt to promote butterfly conservation
   - Develop wetlands and riparian habitat
5. **Offset**
   - Identify degraded land for plantations
   - Grow Miyawaki plantations
   - Partner with IUCN to prepare BMPs
   - Collaborate with industry experts to assess impact of business operations on biodiversity

For the Novelis sites, we have conducted biodiversity assessment for 19 ASI-certified plants.

To further offset emissions, we have developed 15 green belt management plans for non-BMP sites.

We integrate reforestation and afforestation into operational sites and mines, leveraging Miyawaki plantation techniques while following the SOPs. We train stakeholders to monitoring the species.

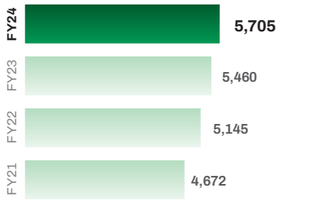
410,355
trees planted *(FY 2023-24)*

5,705 acres
Cumulative green cover
(FY 2023-24)

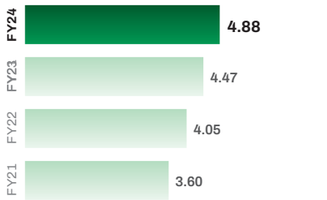
Specialty Chemical Business CEO, Saurabh Khedekar at the launch of Eco-garden initiative Vasundhara at Belagavi plant

Hindalco's Hirakud Plant has developed a comprehensive ecological restoration programme with IUCN experts

GREEN AREA PLANTATION
(Acres)



CUMULATIVE TREE PLANTATION
(million trees)



Rehabilitation of ash mound at Hirakud

More than 10 years ago, we started rehabilitation of the Hirakud fly ash dump site. We sought support from experts to design the ecological restoration and enhance the flora and fauna.

We are now developing a comprehensive ecological restoration programme with IUCN experts to significantly increase the native flora and fauna, engage the local community, and utilise forest resources. The programme involves the application of adaptive management concepts, where actions are taken to acquire knowledge and optimise the achievement of objectives, such as restoring ecosystems and associated services.

One of the initial actions was to remove alien invasive species such as Lantana Camara and Prosopis Juliflora from the site. The removed Lantana Camara was composted to form mulch and biochar (a type of charcoal). This compost helped to restore the soil microbiome, improve soil texture and water and moisture holding capability, lower soil pH and help in long term carbon sequestration.

The programme incorporated sizeable woody debris common in mature, pristine forest landscapes. This practice provides significant habitat and benefits for various invertebrate and vertebrate species, serving as a natural shelter, food source, and breeding ground. The decomposition of these debris also enriches the soil, promoting the growth of native flora and enhancing the overall biodiversity of the area.

The State Pollution Control Board has certified the ash mound as "closed" after the biodiversity and stability assessment, with no liability for legacy ash.

SOCIAL AND RELATIONSHIP CAPITAL

Connecting People and Opportunities

Aditya Birla Public Schools enrich lives by providing quality education to children living in some of the most remote areas of the country

Key Highlights during FY 2023-24

₹154.16 crore
Total Community Expenditure across Hindalco and Novelis

2.5 million+
Lives Touched

12,182
Tier-1 suppliers*

₹159,093 crore
of Procurement Spend

86.1
Novelis Customer Satisfaction Score

** The details provided are for India Operations*

Capital Linkages

- Financial Capital
- Manufactured Capital
- Human Capital

Strategic Priorities

- SP-2 Value Enhancing Growth
- SP-3 Strong ESG Commitment

Material Topics

- M7 Community Relations
- M11 Supply Chain Transformation
- M6 Compliance Management
- M4 Market Presence

Key Risks and Opportunities

- R2 Supply Chain Risks

SDG Linkages

The Aditya Birla Group's CSR philosophy is pivoted around Mahatma Gandhi's ideal of trusteeship. Where you hold the wealth that you generate out of your business as in a trust, guarding the interests of multiple stakeholders. And the organisation is a force for good. In sync with this philosophy, we at Hindalco endeavour to create value for each stakeholder, including our customers, critical suppliers, logistics partners, and the community. We work in tandem with them. Our Purpose is To Enrich Lives by Building Dynamic and Responsible Businesses and Institutions that Inspire Trust.

Our customers help us to stay relevant by giving us insights on evolving market trends and necessities. We are intensely engaged with the communities in proximity to our plants and mines through our CSR projects that make them self-reliant and lead a life of dignity.

Focus Areas

- Δ Strengthening Ties with Communities
- Δ Fostering Customer Relationships
- Δ Responsible Supply Chain

Hindalco's social projects are carried out under the aegis of the Aditya Birla Centre for Community Initiatives and Rural Development

Strengthening Ties with Communities Δ

Engaging with Local Communities

With a focus on sustainability and inclusivity, we strive to be a force for good driving progress towards a better, more equitable world for all. Aligned with the United Nations Sustainable Development Goals (UN SDGs), our CSR Strategy focuses on health care, education, sustainable livelihood, infrastructure development, and social change.

All our CSR projects adhere to the Board-approved CSR Policy, which serves as a guiding document for planning, identifying, executing, and monitoring CSR endeavours. To ensure effective implementation of the CSR Policy, we have established a robust and transparent governance structure.

Our social projects are carried out under the aegis of the Aditya Birla Centre for Community Initiatives and Rural Development chaired by Mrs. Rajashree Birla, supported by the Group Executive President and CSR Head, Dr. (Mrs.) Pragnya Ram. Under their guidance and oversight, Hindalco CSR Head and unit level CSR teams and committees implement projects in collaboration with local, private, and government agencies. The Cluster and CSR heads guide, facilitate, and help monitor these initiatives. The internal CSR committee and the CSR committee at the Board level provide oversight for all our social interventions across the defined focus areas and in line with the regulatory stipulations.

To effectively interact with the local communities and improve the efficiency of project implementation, we partner with the government, district authorities, village panchayats, NGOs, community-based organisations (CBOs), and other stakeholders. We also align with other Aditya Birla Group companies who are executing similar projects.

1. CSR Committee (BoD)
2. Group CSR Head
3. Internal CSR Committee
4. CSR Head
5. Cluster Head
6. Unit Level CSR Committee
7. Unit Level CSR Team

Our CSR Vision

To actively contribute to the social and economic development of the communities in which we operate and beyond. In sync with the UN SDGs our endeavour is to lift the burden of poverty weighing down the underserved and foster inclusive growth. In doing so, build a better, sustainable way of life for the weaker, marginalised sections of society and enrich lives. Be a force for good.

Local youth are given vocational training at the Aditya Birla Rural Technology Park near Renukoot

Community Consultation and Engagement Process

1 Stakeholder Consultation

- Identify key stakeholders for specific CSR projects, including local committee members, government officials, and NGOs
- Facilitate open discussions to gather inputs, concerns, and expectations from stakeholders regarding the project
- Document feedback and insights gathered during the consultations

2 Needs Assessment through Participatory Rural Appraisal

- Conduct needs assessment through participatory rural appraisal activities
- Engage with community members to identify their needs
- Analyse results to prioritise needs and inform project planning

3 Resource Allocation and Detailed Planning

- Based on identified and prioritised needs, allocate resources including budgets and people
- Develop a detailed Annual Action Plan outlining specific activities, timelines, and responsible parties
- Incorporate feedback from stakeholders and affected communities into operational and project decision-making

4 Stakeholder Engagement and Project Implementation

- Implement the project in collaboration with stakeholders, adhering to the established project plan and timelines
- Maintain transparent communication channels to keep stakeholders informed about project progress, challenges, and successes
- Address any emerging issues or concerns in a timely and transparent manner, taking inputs from stakeholders on potential solutions

5 Project Monitoring and Impact Assessment

- Regularly monitor project activities to track progress towards objectives and identify any deviations from the plan
- Engage in participatory evaluation processes to gather feedback on the effectiveness and sustainability of project interventions
- Conduct impact assessment of CSR projects to evaluate the impact on communities
- Use monitoring and evaluation findings to make informed decisions and improve performance
- Share assessment result with stakeholders to promote transparency and accountability

In FY 2023-24, we actively engaged with the communities across 52 plants and 23 mines. Of the 4 development programmes which were carried out during the reporting period, 50% are in the process of community consultation which entails a bottom-up approach.

Community Relations and Grievances

We regularly engage with our communities through a needs assessment mechanism, meetings, satisfaction surveys, training programmes, and workshops. Periodically, through our CSR reports, newsletters, progress reports, social audit magazines, we communicate our performance to the communities.

Establishing clear and accessible grievance mechanism facilitates community members to voice their concerns and get them addressed. Mediation and conflict resolution processes are well in place. We proactively handle these aspects to stem risks, build trust, and foster a positive relationship with local communities.

All the grievances we receive – verbal or written – from external stakeholders are promptly recorded in a grievance register. Specifics include the subject of the grievance, details of the grievance petitioner, and name of the department related with the grievance.

A registration name/ code (grievance number) is issued for each record and this is communicated to the petitioner. Our team then conducts a thorough investigation of each grievance to understand the root cause and identify appropriate solutions. In cases where grievances persist, these are escalated to the relevant department or official for further action. We prioritise swift resolution, aiming to address any pending grievances within 48 hours.

During the reporting period, we received 12 grievances from communities, and all were resolved.

Hindalco has dedicated programmes that aim to increase the percentage of girl children receiving education

Investing in Communities

This year, our social investment was ₹81.83 crore on community development projects (through Standalone and Subsidiary units in India), while our Novelis operation spent around $8.7 million (₹72.3 crore). At Novelis as well, a significant portion of spending goes to the underprivileged.

Community Expenditure (₹ crore) across Focus Areas for India operations in FY 2023-24

₹25.24 crore
Education

₹25.27 crore
Healthcare

₹12.94 crore
Sustainable Livelihood

₹8.72 crore
Infrastructure Development

₹9.18 crore
Social Causes

₹0.48 crore
Overheads

In the reporting year, we have impacted the lives of 1.54 million beneficiaries through our CSR projects and initiatives in India. At Novelis, we have reached out to 1.2 million people (700,000 of which is from our strategic global partnership with FIRST Robotics). Our initiatives include disaster relief efforts, furthering education, building houses, and supporting cause-led objectives.

At Hindalco, we are present in 7 aspirational districts (as defined by NITI Aayog, Government of India, under Aspirational Districts Programme), with all our CSR efforts directed towards the marginalised communities.

In the reporting period, we have increased our CSR spend by 15% in the identified aspirational districts vis-à-vis the preceding year (FY 2022-23).

1.54 million
beneficiaries through CSR projects and initiatives in India

1.2 million
beneficiaries at Novelis

CSR Spend in Aspirational Districts in FY 2023-24 (₹ crore)

₹31.5 crore
Total Spend

₹2.5 crore
Singrauli,
Madhya Pradesh

₹18.9 crore
Sonbhadra,
Uttar Pradesh

₹6.2 crore
Ranchi, Lohardaga, Palamau, Latehar
Jharkhand

₹3.9 crore
Raigarh,
Chhattisgarh

In addition, we have spent ₹28.2 crore for operations associated with Hindalco India (Subsidiaries) in the aspirational districts of Rayagada, Kalahandi, and Koraput in Odisha.

Rehabilitation, Resettlement, and Protection of Indigenous People

In alignment with the United Nations (UN) Declaration on the Rights of Indigenous Peoples, and the International Labour Organisation Convention 169 'Indigenous and Tribal Peoples', we uphold, recognise, and acknowledge the rights, culture, heritage, values, and traditions of Indigenous People. We focus on mitigating any potential negative impact that may arise from our future operational expansions on the lives and livelihoods of these communities. We have a Rehabilitation, Resettlement and Protection of Indigenous People Policy, developed in accordance with the guidelines outlined in the National Rehabilitation and Resettlement Policy.

Name of project where R&R is ongoing	State	District	No. of Project Affected Families (PAF)	% of PAF covered by R&R	Amounts paid to PAFs
Chakla Coal Mines	Jharkhand	Chakla	800	Under finalisation	Under finalisation

We identify local persons/ communities who are likely to be potentially affected by our operations. We conduct a holistic assessment of all our project activities to prepare an engagement plan. This deals with various aspects including principles of Free Prior Informed Consent (FPIC), good faith negotiation, informed consultation, and equal participation of the affected indigenous people. The approach to engaging with indigenous people is participatory. We have built houses for people displaced in the Chakla coal mines and are in the process of signing-off the finalised resettlement and rehabilitation plan.

We draw up Community Development Agreements (CDAs) in consultation with the community. The CDAs delineate specific community benefits such as infrastructure development, healthcare services, education, and employment opportunities. Our Resettlement Action Plans undergo regular audits.

At Samri Bauxite Mines, we are working towards the economic upliftment of the local community, which majorly comprises tribal population. In addition, we have partnered with NABARD and are working on the development of tribal communities around Gare Palma mines. This effort uses convergence from Tribal Development Fund (TDF).

Hindalco's Community Development Agreements delineate specific community benefits such as infrastructure development, healthcare services, education, and employment opportunities

Hindalco's CSR initiatives are tailored to offer the community access to quality healthcare

We also have a progressive mine closure plan, final mine closure plan, and rehabilitation plans. The plans have been approved via the relevant authorities for all our 21 mines.

We engage with the communities through a baseline study which captures the actual scenario prior to commencement of mining. It captures community needs through open dialogue, surveys, and focused group discussions, based on which initiatives are planned and implemented. We provide information about the project, including its potential impacts, benefits, and mitigation measures. This helps in building trust and understanding. Communities are engaged through employment in each phase of mine development, either directly or through allied activities. Community members can directly convey their grievances to the RDO (Rural Development Officer) and the Mines Manager. Depending on the nature of the grievance, the resolution may involve mediation, negotiation, corrective action, or compensation.

CSR Projects	Beneficiaries	
	Hindalco India *(Standalone)*	Hindalco India *(Subsidiaries)*
Pre-school Education	2,632	570
School Education Programme	46,967	8,052
Education Support Programme	50,299	3,726
Vocational and Technical Education	528	0
School Infrastructure	38,565	2,331
Preventive Healthcare	231,044	81,357
Curative Healthcare Programme	105,793	120,694
Reproductive and Child Health	46,146	884
Quality/ Support Programme	9,152	1,080
Health Infrastructure	170,060	60,462
Agriculture and Farm-based	21,446	13,084
Animal husbandry-based	36,729	2,314
Non-Farm and Skill-based Income Generation	22,455	459
Natural resource conservation and non-conventional energy	136,263	2,575
Livelihood Infrastructure	3,730	311
Rural infrastructure development	71,437	28,054
Institution building and strengthening	5,246	11
Support to development organisations	9,589	0
Social Security	27,628	300
Awareness programmes	50,279	1,180
Social Events to minimise causes of poverty	23,949	10,542
Promotion of heritage/culture/sports	76,704	21,080
Disaster Relief Programmes	590	0
Total	**1,187,231**	**359,066**

CSR Focus Areas

Education

Education is a crucial driver of socio-economic development. We provide elementary and secondary education, vocational and technical training to the disadvantaged communities. Our dedicated programmes aim to increase the percentage of girl children receiving education within the community. In the reporting period, 12,035 students across 17 schools were benefitted.

At Novelis, we have supported 700,000 students through the FIRST initiative and an additional 15,000 from community partnerships based on Science, Technology, Engineering, and Mathematics (STEM) initiatives worldwide.

SDG Connect and our Contribution through various CSR projects and programmes:

2 ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.2

TARGET

By 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons. By 2030, end all forms of malnutrition.

CONTRIBUTION

Provided mid-day meals to **379** malnourished children and **30,000** students

4 QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.2

TARGET

By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.

CONTRIBUTION

Supported **719 children** across **190** Anganwadis and Balwadis

4.6

TARGET

By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

CONTRIBUTION

Helped **124 adults** through adult literacy programmes

4.7a

TARGET

Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

CONTRIBUTION

Distributed education materials and uniforms to **21,758 students**

4.7b

TARGET

By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing states and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.

CONTRIBUTION

Offered scholarships to **296 students**

Pustakalay: A Vibrant Library to Enhance Learning and Personal Development

At Aditya Aluminium and Utkal Alumina, we initiated project Pustakalay to develop critical thinking, creativity, and language skills among rural students. The project started in 10 schools with the aim to help every member of the school community gain knowledge and enhance personal development. The students have access to a well-furnished library with 500 attractive learning books, comfortable seating arrangements allowing fun and learning at the same time. Students can also avail online storytelling during summer breaks.

A baseline study was conducted to take stock of the current facilities at the school library. Our intervention to revive the library, or the Pustakalay, succeeded in bringing joy to teachers and students alike.

At ABPS Oshapada, 56% students are from rural communities

Shishuvatika: Creating Vibrant Artwork for Kids

At Hirakud, we wanted to foster a conducive environment for pre-primary school education. Hence, we collaborated with the health department to refurbish existing Anganwadi centres. We did this by creating vibrant artwork in the Anganwadis and installing digital learning sources. Further, we provided the centres with growth monitoring devices, antenatal care examination equipment, and logistics support. Through on-site mentoring, we built the capacity of frontline workers to ensure sustained operations.

We also supported centres for minor infrastructure repairs such as waterproofing roofs, and fixing windows or doors. We also supplied teaching and learning materials and aids, water purifiers, indoor and outdoor toys, furniture, and other essential supplies.

In the reporting period, we supported 480 children and going forward we intend to refurbish 32 Anganwadis.

Stoking Innovation through Learning: Aditya Birla Public School (English Medium)

In Odisha, we worked with marginalised communities to provide education to 1,000 students from 20 villages.

Aditya Birla Public School at Oshapada in Rayagada district of Odisha, places strong focus on education and extra-curricular activities to ensure holistic development. Out of the total number of students, 56% are from rural communities. Over the years, we have been heartened to observe a gradual increase in the number of students enrolling in the formal education system. Thus, we are satisfied to see students making use of the available pre-orientation, guidance, and career counselling, enhancing their future prospects.

Anubhav from low income or first-generation learner, currently a class XII student, represented the state at the junior-level National Volleyball tournament and stood third. In 2023, he again represented the state at the senior level Volleyball tournament. He also was the Head Boy of ABPS in 2023-24.

Along with his accolades in volleyball, he scored 92.8% in his secondary examination. His goal is to either join the Civil Services or become a lawyer.

CSR Focus Areas

Healthcare

We render quality healthcare facilities to people living across urban and rural areas through access to affordable hospitals, and focused mother and childcare projects.

We have undertaken several projects such as immunisation, malnutrition, adolescent healthcare, healthcare support for the visually impaired and differently-abled, preventative health care, treatment of non-communicable diseases, safe drinking water, and sanitation and hygiene. In the reporting period, 69,081 patients benefitted through our partnerships with 4 hospitals and 20 dispensaries/clinics. Through 1,280 medical camps, we have positively impacted 65,525 patients.

SDG Connect and our Contribution through various CSR projects and programmes:

3 GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages

3.1

TARGET: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

CONTRIBUTION: Provided **17,223 mothers** with antenatal and postnatal care services

Facilitated motherhood and childcare services to **57,526 mothers** through **16** family welfare services

3.3

TARGET: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases, and combat hepatitis, water-borne diseases and other communicable diseases.

CONTRIBUTION: Treated **995 tuberculosis** patients

3.8

TARGET: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

CONTRIBUTION: Immunised **137,046 children** against polio and other vaccines

1,312 girls are registered as a part of adolescence healthcare projects

Organised 27 eye camps, with 155 Intraocular lens cases registered, impacting **4,817 beneficiaries**

Project Swasthya Vahini: Bringing Healthcare to Your Doorstep

A baseline study revealed an absence of essential and basic healthcare services in the neighbouring villages of the Hindalco Aluminium Plant at Lapanga in Sambalpur district of Odisha. Since the nearest Public Health Centre (PHC) is situated more than 10 km away, the villagers had to pay at least ₹500 for the journey. The distance and cost acted as barriers for access to quality healthcare.

We introduced mobile telemedicine service to deliver primary healthcare till the last mile across villages. 2 pharmacists have been employed to visit villages offering consultations, tests, medications, and free referrals through a tablet-based health kit. The cloud-enabled healthcare infrastructure allows patients to interact with doctors via video conferencing and access to all health records.

Across the health centres, medical professionals teach the villagers how to lead a healthy life. SMS alerts are sent to inform people on safeguards against critical diseases and immunisation reminders.

These initiatives have enabled villagers, including senior citizens, women, and children, access to free medication and teleconsultations at their doorstep. As an outcome, challenges from limited doctor availability are mitigated with increase in health-seeking behaviour. Real-time disease surveillance has further enabled early disease detection and intervention.

Outcomes of the initiative in FY 2023-24:

- Benefitted 5,942 people
- Facilitated 470 digital consultations, 856 tests, and 29 awareness camps

Making Hygiene Accessible for All: Setting Up Sanitary Napkin Production Unit

Near our mine site in the Chakla village, Latehar district of Jharkhand, we are offering low-cost sanitary napkins to women and adolescent girls (age 14 to 45) to improve their health, hygiene, and overall quality of life during menstrual cycles. Lack of access to proper resources lead the girls and women to use old rags and cloth during their menstruation period, leading to health problems. To overcome this challenge, we identified a suitable location for a production unit, procured required machinery and equipment for sanitary napkin production, and also trained local women in napkin manufacturing techniques.

Along with a partner organisation, we were able to impart training to women and girls to create market channels for the products. We even started conducting awareness campaigns on menstrual hygiene through conversations and other creative methods, like wall paintings. We have successfully produced 140,000 pads. Close to half of the total production has also been dispatched for sale to our other plant locations in Muri and Bandha.

This project has brought about significant positive change such as reduction in health issues, improvement of hygiene, and financial enablement of women involved in the production and distribution process.

The sanitary napkin unit in Chakla village of Latehar district, Jharkhand

Fighting TB, Restoring Hope: Support to TB Patients Under PM Nikshay Yojna

Ajit Munda from Ghaghara village in Lohardaga is a tuberculosis (TB) survivor. After being diagnosed with tuberculosis, Ajit was put on a recovery path by Hindalco as part of its CSR initiatives. He took the Directly Observed Treatment (DOTS) for 6 months. Through timely diagnosis, nutritional support, medication and supervision, Ajit successfully recovered from TB.

In Lohardaga, Hindalco provides treatment and nutritional support to TB patients. Such patients are identified through a network comprising healthcare facilities, community health workers, and diagnostic centres. Patients are then registered on Nikshay portal, which serves as a central database for monitoring and managing TB cases.

Progress is monitored regularly through the portal, while ensuring dietary support and follow-up visits by appointed healthcare workers.

CSR Focus Areas

Infrastructure Development

Under our infrastructure development initiatives, we have an array of activities focused on improving agricultural practices including forestry, animal husbandry, soil and water conservation, watershed development, and adoption of renewable sources of energy.

Apart from infrastructure development, we have supported 8,713 farmers through meetings and melas to enhance their livelihood. We have provided 1,797 farmers with agricultural tools, seeds, and fertilisers. Due to their dependence on cattle and cattle-rearing, we also conducted a cattle immunisation programme for 42,258 farm animals.

SDG Connect and our Contribution through various CSR projects and programmes:

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

TARGET

9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

CONTRIBUTION

9.4

Undertook
7 road construction projects that have benefitted 35,899 people

Improved
11 village approach roads for better access

Constructed
32 check dams benefitting **816 people**

Built
20 ponds supporting **749 people**

Constructed
3 watersheds impacting **80 people**

During the reporting period, Hindalco's measures to enhance water infrastructure has benefitted 1,690 farmers

Nourishing Growth: Lift Irrigation to Empower Farmers

In Babhani village, Renukoot, we installed a lift irrigation system for marginalised farmers. This system was implemented to help them get access to continuous supply of water for their crops. Utilisation of underground waterline and NRV system helped in lifting water to a distance of 1,200 ft even in undulated areas. This initiative significantly enhanced agricultural productivity and increased the annual income of farmers.

After a thorough assessment of the irrigation needs, a plan was devised to install lift irrigation systems at strategic locations. As part of the project, we installed pumps, pipelines, and built associated infrastructure to lift water from its source to agricultural fields.

To ensure the long-term viability of the lift irrigation system, we conducted training and capacity-building programmes for local farmers, where they learnt to operate and maintain the systems. Continuous monitoring and evaluation were integral components of the project, enabling us to gauge the system's impact on agricultural productivity, water utilisation, and the livelihoods of farmers.

This initiative has brought about a transformative shift in the lives of the villagers, enabling them to significantly boost their agricultural productivity, diversify cropping patterns and boost their annual income by ₹30,000 per acre.

Additionally, there has been an improvement in crop quality, enabling farmers to command better prices in the market, thereby enhancing food security within the community.

Because of Project Swajal, women from Khanvel Gram Panchayat in Silvassa are getting access to clean drinking water

Illuminating Communities: Embracing Solar Solutions for Sustainable Living

Access to electricity has posed a major challenge for many rural communities in Chakla. The proximity of these villages to forest areas, present a notable challenge to villagers' mobility due to movement of elephants. To address this concern, we installed 30 solar lights across 5 villages in Chakla. Prior to installation, the community was consulted to understand where the solar lights need to be installed.

The installation of solar lights significantly improved visibility at night, allowing residents to move around safely and reduce the chances of elephant encounters. This initiative has not only enhanced safety in villages but has also encouraged the adoption of renewable energy. Approximately 5,000 households benefitted from this project.

From Conservation to Abundance: Nurturing Communities with Water Positivity Measures

We recognise the vital importance of water conservation and aim to become a water positive organisation. To fulfil this aim, we have built infrastructure to store water in peripheral villages around our operations across 5 states.

First, we identified infrastructure requirements in consultation with the village committee and farmers club. During the reporting period, we built/renovated 16 check dams, 11 ponds, 12 water harvesting structures and 6 irrigation channels. With these steps, we have been able to bring 679 hectares of land under irrigation, benefitting 1,690 farmers. This has further helped in creating a water storage facility exceeding 0.86 lakh m^3. Till date, we have built/renovated 99 check dams, 129 ponds, and 25 water harvesting structures, in addition to various trenches and bunds.

The project has provided irrigation facilities for over 12,000 acres of land belonging to approximately 15,000 farmers. Moreover, more than 5,700 families now have access to water for daily use. Through our CSR initiatives across units, we have stored more than 30 lakh m^3.

CSR Focus Areas

Sustainable Livelihood and Social Change

An important part of bringing about social change is to advocate for reforms such as dowry-less marriage and widow remarriage, and conduct awareness programmes on gender equality, importance of earning an income and the harms of addiction.

With the aim of transforming lives, we provide skill enhancement opportunities to women through vocational training. To impart these trainings, we have partnered with several industrial training institutes.

SDG Connect and our Contribution through various CSR projects and programmes:

4 QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.3

TARGET	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
CONTRIBUTION	Facilitated vocational training programmes for **1,088 beneficiaries** Provided technical skill trainings to **5,713 beneficiaries**

8 DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.3

TARGET	Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-small and medium-sized enterprises, including through access to financial services.
CONTRIBUTION	Supported formation of self-help groups with **1,581 women**

Women at a tailoring unit under Project Saksham

Project Saksham: Giving Wings to Women's Dreams

Project Saksham is aimed at empowering people, especially women through skill development and entrepreneurship. Its overarching goal is to promote equal opportunities to women from disadvantaged socio-economic backgrounds.

Saksham offers skill development courses on computers, tailoring and beautician training to enhance the employability of people. The project offers beneficiaries with access to resources, such as electric sewing machines, at discounted prices.

The project helped women like Meera Devi to generate monthly incomes ranging from ₹15,000 to ₹17,000.

Sangeeta Devi, one of the beneficiaries of Project Sakhi

Project Sakhi: From Strength to Success—the Inspiring Journey of Sangeeta Devi

Project Sakhi, a venture initiated by Hindalco Renukoot, is dedicated to empowering women through entrepreneurship. The project enabled 30 women to start their entrepreneurship journey to achieve financial independence thereby making them self-sufficient and contributing to the economic prosperity of their families and communities.

For example, Sangeeta Devi from Babhani received extensive support when she opened her small grocery store. Over time, she was guided on how to expand her business. Like her, other women were provided training on aspects of business management. We provided them with raw materials, marketing assistance and encouragement to facilitate, grow and diversify their businesses.

The initiative also elevated the social status of these women, with estimated monthly earnings ranging from ₹7,000 to ₹8,000.

Breaking Barriers—how Sana Embraced Financial Independence

As part of our CSR endeavours, we conducted a need-based survey in the tribal and rural areas surrounding the Wavanje in Taloja, Navi Mumbai. The survey aimed to assess the socio-economic status of women within this community. Findings revealed that the women lacked sustainable livelihood opportunities, were primarily engaged in low-paying menial jobs, and were not given recognition for their efforts within their families and communities.

To address this issue, we signed a Memorandum of Understanding (MOU) with Kohinoor Technical Institute in Panvel under Project Silai. A 3-month 150-hour certificate course in tailoring and fabric decoration was designed. We provided sewing machines and engaged an expert to conduct the classes. Upon completing the course, all students underwent a comprehensive assessment.

Mrs. Sana Katkari, a participant in one of the tailoring batches, has transitioned into a successful entrepreneur. Today she receives regular orders for stitching garments and earns a monthly income ranging from ₹3,000 to ₹4,000. Her entrepreneurship journey has elevated her status within her family and community.

Around 9 women have started their own tailoring businesses, enabling them to achieve financial independence and uplift their families from poverty.

Project Astitva: Turning Challenges into Triumphs

Project Astitva was launched to empower people with disabilities from around 5 villages near Hindalco's copper plant in Dahej.

Heni Gohil, a 19-year-old resident of Ambheta village, suffers from low vision. Her parents, who work as casual labourers, have limited financial means. Despite her physical challenges, Heni completed her education upto class 10th and showed remarkable resilience and determination in contributing to her family's income.

Heni became involved in the Astitva project, and actively participated in the Gopi group, a village-level organisation for Persons with Disabilities (PwDs), demonstrating her commitment to social engagement and building a support network. Heni participated in various skill development sessions, including rakhi-making, diya decoration, and warli painting. Through her involvement in rakhi sales, Heni demonstrated an entrepreneurial spirit, earning a modest income of ₹300-₹400. Her foray into selling agarbatti further highlighted her determination to contribute to her family's income.

Heni aspires to complete her education upto 12th grade and become financially independent. Going forward, she wants to enrol in computer classes in order to acquire skills that would open more doors for her.

Community Risk Management

At Hindalco, we are dedicated to minimising and addressing any negative effects our operations might have on local communities. All operations to identify and reduce potential social and environmental impacts. We also implement strict environmental management plans to control pollution, manage waste, and rehabilitate mined areas. Before starting any operation, we conduct Environmental Impact Assessments (EIAs).

From a social standpoint, we offer fair compensation schemes for land acquisition and ensure that local communities benefit economically from mining activities. This includes creating jobs, using local suppliers for procurement and supporting community development projects.

Our mining operations may directly or indirectly impact the health and safety of community members. The proximity to operational locations can lead to health issues because of air, water, and noise pollution. We regularly monitor air and water quality around mining sites to detect and address pollution early. We have implemented health programmes that provide regular medical check-ups, health education, and emergency response training to improve the overall health and safety of the community. We involve local communities in the decision-making process and maintain open communication to address their concerns and enhance their well-being.

Each manufacturing unit maintains a risk register to document potential risks to the community. We have a robust Enterprise Risk Management (ERM) process across all our manufacturing units. The Corporate Risk Officer, along with the Risk Coordinator and Risk Champions at each unit, oversee the risk register and ensure mitigation plans are in place. We use a colour-coded action plan for risk mitigation, ranging from green (low risk), amber (medium risk) to red (high risk). Each department reviews all risks and takes timely action to mitigate and overcome the challenges.

No social impact assessments were conducted in the reporting period.

Lifecycle Stages	Social	Environmental	Economic	Cultural
Pre-bid	Engaging with local communities and stakeholders to understand social expectations and concerns.	Conducting preliminary environmental impact assessments to identify potential risks and mitigation measures.	Assessing economic benefits for the local community, including job creation and local procurement opportunities.	Identifying cultural sites or practices that could be affected and developing plans to protect them.
Exploration	Continued stakeholder engagement, social baseline studies, ensuring minimal disruption to local communities.	Detailed environmental impact assessments, monitoring wildlife and habitat impacts, and implementing mitigation strategies.	Creating local employment opportunities and sourcing materials from local suppliers where possible.	Consulting with indigenous and local communities to ensure respect for cultural practices and sites.
Site-development	Designing community development programmes, ensuring fair labour practices, and maintaining open communication channels.	Implementing environmental management plans, erosion control, and habitat restoration projects.	Boosting local economy through increased demand for services and goods, and infrastructure improvements.	Preserving cultural heritage sites and incorporating local cultural elements into site planning and development.
Production/ Operation	Ongoing community engagement, health and safety programmes, and addressing community grievances.	Continuous environmental monitoring, waste management, emission controls, and resource use optimisation.	Providing stable employment, local business opportunities, and contributing to regional economic development.	Supporting cultural initiatives and events, ensuring operations do not disrupt cultural practices.
Closure	Planning for workforce transition, community support programmes to mitigate economic impacts of closure.	Decommissioning facilities, soil and water remediation, habitat restoration efforts.	Economic diversification projects to sustain the community post-closure, retraining programmes for workers.	Ensuring closure plans respect cultural sites and practices, involving community in closure planning.
Decommissioning	Continued community engagement to address concerns and provide updates on decommissioning activities.	Safely dismantling structures, managing hazardous materials, and restoring land to natural or agreed-upon conditions.	Finalising economic contributions and ensuring that decommissioning activities provide short-term employment.	Protecting cultural heritage during decommissioning and ensuring that site restoration considers cultural significance.
Restoration post Closure	Monitoring social impacts post-closure, supporting community-led development projects.	Long-term environmental monitoring, biodiversity restoration projects, and ensuring stability of ecosystem.	Investing in long-term economic development projects, ensuring sustainable benefits for the community.	Ongoing support for cultural heritage projects, ensuring restored sites are culturally beneficial.

Translating CSR Strategies into Action – A Story from Silvassa

Silvassa Extrusion Plant was commissioned in November 2022. We are implementing CSR interventions in villages near the plant with a focus on Khanvel Gram Panchayat, Silvassa. A majority of the population in these villages is from tribal communities (Scheduled Tribes).

We conducted a need assessment survey with the help of an external agency, organised field visits and interacted with stakeholders at the grassroots-level, and government authorities. The results of this survey helped us to prioritise the following focus areas for our CSR projects— health, education, infrastructure development, sustainable livelihood, and other projects.

The following projects have been undertaken under each of the identified focus areas:

Education

Project Disha: Support for school enrolment drive, career guidance session – with government schools, education department

Healthcare

Project Niramaya: TB, Leprosy and Sickle Cell Anaemia Support Programme – with District Health Department

Project Suposhan: Nutritional Support for children to fight Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM), in collaboration with ICDS Department

Project Shishu: Providing materials for NICU to Government Hospital – With Sub District Hospital Khanvel

Project Swajal: Clean Drinking Water for all – 13 hand pumps and borewells installed in collaboration with PRI Khanvel

Infrastructure Development

Project KiranJyoti: Promoting solar energy for street lighting – With PRI Khanvel

Sustainable Livelihood

Project Sakhi: Supporting government-trained beauticians to start their business – With Rural Self Employment Training Institutes

Other Projects

Project Sankalptaru: Tree Plantation at Chauda Ground with tree guards

Project Khel-Kood: Promotion of Sports

Project Varso: Promotion of Culture by supporting Tarpa Mahotsav, a local cultural activity

Project Niramaya has come as boon for people combating tuberculosis in Dadra and Nagar Haveli

We collaborate with the local communities, relevant government authorities, youth groups and NGOs to ensure effective on-ground implementation of our projects. We have partnered with neighbouring businesses to address tuberculosis (TB) challenges in Dadra and Nagar Haveli. Because of our intervention, 2 businesses have registered under Nikshay Mitra, and one industry has supported the implementation of initiatives for National TB Day. When some families in the vicinity of our plant lost their homes due to floods, we engaged with PRI members to understand their needs and provided essential items such as beds and gas stoves to tide over the crisis. We are also working closely with the Rural Self Employment Training Institute for post-training support to fill training gaps instead of deploying additional resources, thus making optimum utilisation of funds.

We look forward to collaborating with local academic institutions to recruit volunteers for short-term projects and offer internship opportunities to youth. We also encourage our employees to participate in volunteering activities.

Responsible Value Chain

Our firm commitment to ethical practices and keen focus on sustainability drives us to source our materials responsibly. We recognise the environmental and societal implications of our sourcing decisions and collaborate with suppliers at varying times of the engagement to minimise any such actual or potential impacts. From supplier assessments to promoting fair labour practices and sustainable production and sourcing methods, we prioritise transparency and accountability throughout our supply chain.

We have substantial dependency on our suppliers, and obtaining the necessary raw materials in a timely manner is integral for manufacturing the end products for sale. Our relationship with all our suppliers, and other value chain partners is critical in maintaining our top line position. The wide network of suppliers both domestic and global are spread across international geographies.

At Hindalco India (Standalone and Subsidiaries), we have 12,182 Tier-1 suppliers. Out of the total Tier-1 suppliers, we have identified 129 suppliers as significant, and these suppliers comprise 90% of the total procurement spend. Our 'significant suppliers' are classified in terms of business volume, dependency, impact to quality, business continuity, business relevance and ESG impacts to Hindalco.

At Novelis, we have a network of 16,054 tier-1 suppliers, out of which 459 are significant suppliers and 15,595 are non-significant suppliers.

TOTAL INPUT MATERIAL SOURCED AT HINDALCO INDIA
(Standalone and Subsidiaries):

Percentage of input material (inputs to total inputs by value) sourced from suppliers	FY 2022-23	FY 2023-24
Directly from within India	37%	**29%**
- Out of which: Directly sourced from MSMEs/small producers	2.5%	**7.4%**
Directly from International Suppliers	63%	**71%**

In FY 2023-24, the combined procurement expenditure for Hindalco and Novelis amounted to ₹159,093 crore. Of this amount, Hindalco India contributed ₹63,113 crore, while Novelis' share was $11.6 billion (₹95,980 crore).

Supplier Code of Conduct

- **Compliance with all applicable laws and regulations**
- **Business Ethics**
- **Anti-Bribery and Anti-Corruption**
- **Labour and Human Rights**
- **Occupational Health and Safety**
- **Development of High Quality and Safe Products**
- **Fair Treatment to Employees and Suppliers**
- **Sustainable Practices**
- **Verification of Supplier's Compliance**

Our Supplier Code of Conduct (SCC) embodies global best practices, encompassing health and safety, environmental stewardship, human rights, and ethical business conduct. This framework is aimed at fostering sustainable business practices across our value chain. We insist that all our suppliers, vendors, contractors, consultants, agents, and other goods and service providers comply with the provisions laid under Hindalco's Supplier Code of Conduct. We have robust procedures in place for sustainable sourcing. We are committed to inculcate sustainable sourcing practices and our SCC has provision for sustainable sourcing of material.

Suppliers are expected to implement the necessary systems to reduce the environmental impact of their operations and products and ensure compliance with government regulations. They are required to respect fundamental human rights and adhere to the standards set by International Labour Organisation (ILO), as outlined in our SCC. Our business agreements and contracts includes human rights requirements and we encourage our suppliers to provide a safe workplace, free from any form of discrimination and harassment.

We expect our suppliers to maintain safe working conditions by continuously identifying potential hazards, evaluating risks, and implementing control measures in accordance with our SCC. They are required to follow a zero-tolerance policy on acts of safety violation.

Suppliers must adhere to product quality standards, policies, specifications, and procedures applicable to their operations. We urge suppliers to develop their own sourcing policies and standards aligned with international standards, and promote awareness, provide training on risk mitigation and emergency procedures to employees and contractors. Periodic assessments are conducted to ensure supply chain partners' compliance with the SCC.

Acknowledgement and adherence to the Hindalco's Supplier Code of Conduct are obtained from suppliers to affirm their commitment to these standards. The SCC document is also publicly available to anyone who wants to do business with Hindalco.

Supplier Screening and Onboarding

We have a systematic and robust approach to screening suppliers to ensure any risk to our supply chain is prevented at an early stage itself. This screening methodology of the supplier is multifaceted, to ensure a complete risk assessment is carried out prior to start of a business relationship. The screening process includes a financial assessment of the service provider to determine the ability to take up project being assigned. The suppliers are also assessed on the quality of product/services they are providing, and their sustainability footprint on environmental, social, governance, impact is assessed. We consider the risks associated with the sector, country, and commodity during the screening process for significant suppliers.

Following the screening, suppliers are rated and categorised as below:

We have set minimum ESG requirements that suppliers must meet to participate in tenders or be considered for contracts. The procurement team must ensure that the purchasing practices towards suppliers is continually monitored, and any changes or updates in our SCC, reflect in the screening process.

Conversely, suppliers demonstrating better ESG performance are given preferences during supplier selection and awarding of contracts. Our dedicated teams are entrusted to ensure we source responsibly.

During the reporting year, 454 suppliers, including 72 significant suppliers, were screened using environmental and social criteria. Additionally, all new suppliers were screened using environmental and social criteria based on our pre-onboarding assessment framework.

We have enabled our procurement team with the required levers to assess the ESG compliance before onboarding, through the engagement, and at the audit phase.

Supplier Assessment

The management of supplier relationships is critical for us to ensure operational efficiency, risk mitigation, and overall business success. We have a robust Supplier Performance and Risk Assessment Framework which is essential for evaluating and managing suppliers effectively. This framework involves several key components aimed at understanding, mitigating, and aligning supplier practices with those of our organisation.

The primary objective of the assessment is to gauge the extent to which a supplier's business practices align with our own. By assessing alignment, we ensure that our suppliers uphold standards that reflect our company values and objectives on factors such as ethical standards, quality control measures, compliance with regulations, environmental sustainability practices, and overall operational integrity.

Upon completing the alignment assessment, the next step is to develop a mitigation plan tailored to address any gaps or risks identified. This plan outlines specific actions and strategies to improve alignment or mitigate potential risks associated with supplier practices. Mitigation strategies may include providing additional training or support, diversifying the supplier base, implementing contingency plans to manage potential disruptions, or termination of business relationship. During the year, we assessed 454 Tier-1 suppliers and all our new value chain partners based on environmental impacts and social impacts, including sexual harassment, discrimination at the workplace, child labour, forced labour/involuntary labour and wages.

The assessment process considers the criticality of each supplier to our operations and categorises suppliers based on the type of goods or services they provide. There are 3 categories defined based on criticality and dependency. The first, is the Significant suppliers, whose products or services are integral to our business continuity. The other categories are Medium dependency and Low dependency suppliers. This is detailed out in our Supplier Performance and Risk Assessment Framework. Based on the criticality, the assessment type ranges from self-assessment, evidence-based desktop assessment, and exhaustive on-site assessment. The assessments based on supplier criticality are conducted by internal assessors, contracted consultants (2nd party assessment), or independent accredited auditing bodies (3rd party assessment). Types of assessments checks may include financial stability checks, operational audits, performance reviews, and sustainability assessments, among others. Those who are unable to meet expectations within a specified time frame are temporarily excluded from the list of potential suppliers until they achieve compliance. Accordingly, we develop improvement plans for the suppliers.

Significant suppliers undergo a more rigorous assessments compared to non-significant suppliers. The tiered approach ensures that resources are allocated appropriately based on risk and impact.

Various levers are utilised to conduct comprehensive supplier assessments within our framework:

- **Performance Metrics:** Objective measures such as delivery times, and quality standards
- **Compliance and Regulatory Checks:** Assessing adherence to industry regulations, legal requirements, and certifications
- **Financial Stability:** Evaluating financial health, liquidity, and creditworthiness to assess risk of supplier failure
- **Ethical and Social Responsibility:** Scrutinising ethical practices, labour standards, and social responsibility initiatives
- **Risk Management:** Identifying and mitigating risks related to supply chain disruptions, geopolitical factors, natural disasters, and other external threats

By leveraging these assessment levers, we gain a comprehensive understanding of each supplier's capabilities, risks, and alignment with our business goals. This enables us to make informed decisions, strengthen supplier relationships, and drive continuous improvement across our supply chain.

The framework for various types of supplier assessment is based on the national and international guidelines, regulatory requirement and globally recognised assessment agencies such as Organisation for Economic Cooperation and Development (OECD), IMS, Compliance to UN standards, among others.

In conclusion, the well-structured Supplier Performance and Risk Assessment Framework is enabling and enhancing transparency, reducing operational vulnerabilities, and fostering long-term partnerships with suppliers who share our commitment to excellence and integrity. Through regular evaluations and strategic mitigation planning, we ensure resilience and sustainable growth in an ever-evolving marketplace.

During the reporting period, Hindalco established business relationships with 12,182 tier-1 suppliers. Out of these, 129 suppliers were identified as significant tier-1 suppliers. In the reporting year, 56% of the significant suppliers having high dependency were assessed on the basis of comprehensive assessment methodology. We will achieve 100% target by FY 2024-25. In addition to the significant or high dependency suppliers, we also identified the suppliers having medium dependency and 382 of such suppliers were assessed as per the applicable methodology.

SUPPLIER NETWORK AT HINDALCO DURING FY 2023-24:

Type of Supplier	Tier-1 suppliers	Significant Tier-1 suppliers*
Total procurement spends *(₹ crore)*	63,113	56,819
Number of suppliers	12,182	129
Number of suppliers assessed	454	72

** Significant suppliers comprise of 90% of the total procurement spend*

Supplier Evaluation and Risk Assessment

Our supplier risk assessment process entails thorough evaluations before supplier onboarding and every 2 years thereafter. These evaluations consider various criteria including health and safety, environmental practices, labour management, human rights, regulatory compliance, financial attributes, and market dependency. Additionally, we conduct scenario analysis to identify potential risks across the supply chain, basis which the evaluation parameters are updated. During the assessment of our significant suppliers, the ESG criteria is given significant weightage and the rating is calculated accordingly.

After the assessment based on parameters comprising the above criteria each supplier receives a rating basis the evaluation process. These ratings categorise Tier-1 suppliers as high-medium, or low-risk which has an impact on their business opportunities and relationship with us.

RISK RATING FOR ONLINE DUE DILIGENCE (OUT OF 100)

Low Risk | *Medium Risk* | *High Risk*

Genuineness and Credibility of Vendor		
+ Established track record of the vendor + Compliant with all tax and regulatory formalities	+ Recently incorporated entity with no significant operations + Vendor has relatively less professional experience	+ Vendors/promoters who have no business operations/ professional background + The physical address of the Vendor cannot be validated + Non-Compliance with tax and other regulatory formalities
Reputation of Vendor		
+ No negative media coverage	+ Consumer Complaints + Negative media including strikes and workplace accidents + MCA defaults	+ Violation of Anti-Bribery and Anti-Corruption compliance / UK Bribery Act violations + Environment law violations + Business with OFAC (Office of Foreign Assets Control) sanctioned countries + Sanctions/Bans by regulators
Legal/Criminal History and Regulatory Violations/Sanctions		
+ No litigation/ criminal history/ regulatory violations	+ Civil litigations + Investigations by police, arrests depending on the parties involved and the severity of crime	+ Links with terrorist or anti-social groups + Criminal litigations + Investigations by police, arrests depending on the parties involved and the severity of crime + Fines imposed by Regulatory Authorities + Operations in OFAC sanctioned countries
Financial/Operational		
+ Healthy financials + Good liquidity ratio + Low debt/equity ratio + No credit defaults	+ New vendor with low working capital + Weak liquidity	+ Consecutive Operating Losses + High debt/equity ratio and low liquidity + Credit defaults + Negative net worth
Government Links		
+ No government links	+ Interaction with government/ political entity + Provide services to government	+ Key Individual of Vendor is a politically exposed person + Family of key individual of vendor is politically exposed
ESG		
+ No ESG risk	+ Medium ESG risk	+ Non-compliant to ISO, labour laws, safety, permits, sustainable sourcing + Active cases on corruption, bribery, harassment, customer complaints in public domain

** Suppliers categorised as high-risk stand to lose the opportunity to receive inquiries or business from Hindalco*

Along with online due-diligence, and assessment, and subsequent risk categorisation, we have a separate risk rating methodology for our physical assessments.

Risk Rating for Physical Assessments (out of 100)

<=69
High-risk supplier

>=70
Low Risk Supplier

The criteria for physical assessment are provided below-

+ Technology Base
+ Governance
+ Operation Management
+ Resource Management (Human Resources and Equipment resource)
+ QMS
+ Risk and Business Continuity
+ General Administration
+ Financial Strength
+ Litigation History, Criminal Records, Illegal and Unethical Practices
+ Environmentally Responsible Business Operations
+ Human rights (Labour processes)
+ Management System
+ Health and Safety

Out of the 72 significant suppliers who were assessed, 22 suppliers (30.56%) were identified as having substantial actual/potential negative impacts (high-risk suppliers). Based on the risk assessment an identified actual/potential negative social impacts, relationships with 2 suppliers were terminated. All the suppliers were supported in the implementation of corrective action plan. We remain committed to providing necessary training and support to these high-risk suppliers with an aim to assist them in improving their risk rating. Within our supply chain, we maintain an enterprise risk register, where we register key risks encompassing supply chain disruption, geopolitical logistics, infrastructure, financial, strategic, and operational risks. Through root cause analysis, we link identified risks to the company's objectives, thereby assessing their likelihood and severity. These risks are then categorised as green, yellow, amber, and red based on the severity of risks. Subsequently, we formulate mitigation plans to reduce risk scores, with monthly evaluations to monitor execution.

Corrective action plan with defined timelines is formed on the basis of the assessment and finalised with the vendor after discussion. We developed corrective action plans for suppliers to record their non-compliance issues, identify root causes, and capture measurable, achievable solutions and realistic deadlines. We also provided them with guidance and support on implementing corrective and improvement actions, either remotely or through on-site visits.

On the basis of the supplier assessment, 27 suppliers were identified for the capacity-building and improvement programmes. We are establishing timelines for the improvement areas identified. We have hired a third party that will assist the suppliers in understanding the capacity building for the improvement plans identified. We communicate our ESG specific expectations to our suppliers. In FY 2024-25, we have planned ESG focused capacity building workshops for our significant suppliers.

Once every 2 years, we conduct global vendor meet to build sustainable and long-lasting business relationships with significant suppliers. These meets provide our senior leaders with a direct access to the suppliers, and the leaders leverage this platform to communicate our focus on sustainability, as well as the importance of integrating ESG in their business operations. We also conduct such vendor meets at plant level for significant local suppliers and contractors. In the previous vendor meet, we observed participation from 116 delegates from 85 businesses across 11 countries.

We regularly engage with our suppliers and vendors through emails and meetings, vendor assessment and review, supplier audits, training workshops and seminars, and stakeholder engagement surveys. We have a grievance mechanism for suppliers to raise their concerns and issues proactively. Before our global and unit vendor meet, we have started taking input/feedback from significant vendors on the challenges or grievances they face. These matters are addressed by the senior management during the meet. Any continuing grievance is communicated by the vendors to the team concerned and is resolved in a timely manner.

Supplier ESG Programmes

At Hindalco, we encourage our suppliers to improve their ESG performance. We have established a dedicated task force comprising internal team members and leaders from the executive management to ensure supply chain sustainability. The task force builds awareness on relevance of adopting sustainable practices for our procurement team members and conveys them their roles and responsibilities in the suppliers ESG programmes.

Logistics

Logistics is about the management of movement of goods, from production to final delivery to end customer. Given the diverse geographical locations of our facilities, logistics function faces significant challenges in transporting large volumes of commodities over long distances.

Our Corporate Logistics function is categorised into 5 verticals: road, railways, shipping, warehousing, and digitalisation. These verticals standardise and optimise logistics operations across all our plants, enabling them to achieve competitive advantage.

The logistics team facilitates seamless connectivity between multiple units, from mining sites to marketing, enabling us to expand our presence nationwide and strengthening our commitment to operational excellence and cost leadership.

To improve international logistics, we are setting up more touchpoints and developing necessary infrastructure at more port locations to facilitate the ease of EXIM operations.

Several pilot projects are underway to explore the viability of using efficient transportation modes, such as LNG vehicles or electric vehicles, for short-distance logistics. Additionally, a collaboration with the government has led to the introduction of an aluminium freight rake, which is significantly more energy efficient as compared to steel rakes.

We place a strong emphasis on railways since it is more sustainable than other transportation modes. We are making efforts to integrate non-connected plant locations into the Indian railways network. For instance, the Belagavi railway siding project is in progress, and we have also started building railway sidings for 2 new mines.

The captive jetty at our Dahej unit

To manage and overcome impending challenges in shipping logistics, we have established long-term contracts and involved multiple logistics service providers. During the reporting period, no significant external concerns disrupted logistics at Hindalco.

We were facing persistent challenges regarding domestic availability of coal since FY 2022-23. However, in FY 2023-24 we overcame the challenge by increasing the spread and using multiple modes of movement to gain volumes.

In Q3 of FY 2023-24 there was a 100% rise in realisation of coal rakes from South Eastern Coalfields Limited (SECL).

At Novelis, our logistics network includes road, rail, ocean, and air transportation. It supports inbound shipments of raw materials, scrap (third-party and internal) as well as all outbound shipments to customers, warehouses, external processors and all interplant shipments.

For North America, Novelis partners with over 120 transportation carriers, 20+ warehouses and 3 freight forwarders. These partners support Novelis across all the US states as well as Canada and Mexico.

Safeguarding Loading and Unloading: Enabling safety and integrity of van trailer

A recent incident at Novelis involving the collapse of a van trailer floor during loading and unloading, brought safety issues to the forefront. Determined to immediately address these concerns, Novelis initiated a project aimed at understanding the root causes and developing effective mitigation strategies to reduce such risks, especially that of physical injury.

The project team reviewed safety incidents and analysed each occurrence to uncover underlying patterns and conditions. They collaborated closely with carriers and equipment manufacturers to review construction standards and dynamic load weight capabilities of van trailers. The team analysed shipment data and scrutinised specific lanes and facilities to identify potential risks associated with different types of forklifts and the weight of commodities being handled. The project team developed an external and internal inspection process for trailers. This process was tested at a Novelis facility, where it proved its effectiveness in identifying potential hazards and ensuring compliance with safety standards.

Assessment of Logistics Partners

Our logistics partners undergo a thorough evaluation before they are onboarded. This includes functional assessment of their capabilities and expertise, followed by a detailed techno-commercial evaluation. Contracts are awarded to vendors who demonstrate the best technical proficiency and commercial viability. Our screening criteria comprise factors such as expertise, experience, market feedback, accuracy of services, past performance, adherence to ethical standards and the Code of Conduct.

We prioritise human rights within our value chain, ensuring no child labour or forced or compulsory labour is involved. The human rights requirements are integrated into our business agreements and contracts. During the reporting period, all our logistics partners were assessed for environmental and social impacts comprising sexual harassment, discrimination at the workplace, child labour, forced labour or involuntary labour, wages, health and safety, and workplace conditions, among others.

At Novelis, vendor performance is monitored through a balanced scorecard which assesses operational performance, safety, sustainability, and pricing competitiveness. Furthermore, various metrics and certifications such as EPA SmartWay, MPG benchmarking, average fleet age, reduction of empty miles and payload optimisation are included in the assessments.

During our quarterly business meetings, we conduct performance reviews of our strategic vendors, incorporating qualitative and quantitative feedback from Novelis and the vendor. Improvement and corrective action plans suggested to logistics partners are consistently tracked and monitored to ensure effective implementation.

Geopolitical Risks and Challenges

At Hindalco, we have adopted a future-proof strategy to safeguard our operations against increasing geopolitical uncertainty. We onboard logistic partners through fixed contract agreements to mitigate potential disruptions from fluctuations in market demand and supplies.

Novelis depends on its trade compliance and government affairs teams to identify and mitigate risks. Operationally, Novelis seeks supplier diversification to establish contingency measures and reduce dependency on any individual vendor. This includes the development of flexible strategies and contingency plans to minimise and mitigate the impact of such disruptions.

Digitalisation of Logistics

At Hindalco, we are committed to digitalise all verticals of our logistics operations to establish standardised, transparent, and efficient systems. We are undertaking a comprehensive overhaul of our track-and-trace platform by replacing existing systems with newer ones to eliminate past redundancies. Previously limited to outbound operations, the tracking and tracing of logistics operations are now being expanded to include inbound logistics as well.

We are taking proactive steps to shift from manual operations to automated logistics systems. Both Aluminium And Copper businesses have fully transitioned to the Ekayaan platform, where troubleshooting is done promptly as needed. The platform has also been implemented for the Specialty Alumina business.

Automation of Ocean Freight Module for Enhanced Visibility and Transparency

Currently, data management at shipping logistics is done on excel spreadsheets, which are shared via email with the plant during the preparation of customs invoice. During shipment, invoices undergo manual verification and are sent via email for endorsement by the Head of Department (HOD) before being forwarded to respective units for bill processing.

To minimise manual interventions and increase transparency at all stages, we are in the process of automating the ocean freight/shipping logistics at Hindalco. The ocean freight data will be updated in Oracle before material dispatch (prior to preparation of customs invoice), with the freight costs automatically generated based on factors such as shipping line, port of loading, and destination port.

Upon shipment, payment fields will auto-populate relevant costs in Oracle, where invoices can be attached and approvals processed within the system, eliminating the need for email correspondence. Capturing the 'Shipped on Board date' will help units to download the provisions from respective service providers (Shipping Line, CHA, Rake operator) for monthly accounting, thus helping them in getting accurate information and aiding payment reconciliation. Access to this system will be extended to all units, including primary and downstream aluminium.

This automated system will provide real-time cost per metric tonne (PMT) for goods dispatched from the plant. It will also help in calculating Turnaround Time (TAT) and detention at each stage of container handover.

Novelis' Yeongju plant is the largest aluminium recycling center in Asia

Warehouse Management System Implemented for External Warehouses

All our external warehouses were using manual processes, which caused errors and hindered visibility in operations. Despite the presence of system-generated barcoded labels on finished goods, these were not being used for inventory accounting in any of the warehouses. Recognising the need for improvement, we implemented a Warehouse Management System (WMS) to streamline operations and enhance accuracy.

Initially, 3 warehouse locations were selected to pilot WMS implementation based on their complexity and criticality. Drawing from the insights gained during the pilot phase, we proceeded to implement WMS across all its external aluminium and copper warehouses. This included integration of Enterprise Resource Planning (ERP) for seamless handling of accounting, order management, and invoicing.

The implementation of WMS involved gridding of warehouse storage areas with alphanumeric nomenclatures to facilitate precise inventory tracking. Through integration of product and location barcodes, unique identifiable locations were created for each package. The system then allocated destinations for storage based on available space and capacity.

WMS yielded several benefits:

- System-based validation during receipt and dispatch of materials minimised errors and enhanced data accuracy
- WMS-driven logic for storing and retrieving materials streamlined operations, making it easy to locate material and allocate for dispatch
- The system-based perpetual inventory process improved accuracy as compared to manual stock-taking, ensuring precise inventory tracking
- Dashboards and reports enabled regular monitoring of warehouse occupancy, facilitating proactive management of overaged materials

Digitalisation at Novelis

Novelis has implemented Transportation Management Systems, which ensure timely delivery of goods by optimising loads and delivery routes, tracking freight across local and global routes, and automating time-consuming tasks such as trade compliance documentation and freight billing. It provides real-time visibility across the network with dashboards, metrics and KPIs.

Novelis is also using Electronic Data Interchange (EDI) to enhance its communication with carriers, improve efficiency and reduce costs. Additionally, automation, Robotic Process Automation (RPA) and digital workflows have streamlined communication and simplified repetitive manual tasks.

Fostering Customer Relationships

Customer Centricity

At Hindalco, we prioritise proactive engagement with our customers to understand their needs, preferences, and concerns, ensuring we develop, manufacture and supply products that best suit their application. Our structured customer engagement strategy includes communication through emails, regular meetings, satisfaction surveys, visits, social media, and grievance mechanisms. With the introduction of our Technical Sale Representatives, we are now able to spend time on customer shopfloors to co-create solutions with our customers to enhance mutual value.

Our approach to ensuring customer satisfaction and effective post-sales service is 4-pronged:

1. **Engagement:** We work closely with customers to finalise product volumes, technical specifications, input prices, and performance metrics. Our approach to customer engagement is not just to understand the product characteristics but also understand its process and application.
2. **Delivery:** To ensure timely delivery, we've partnered with reliable suppliers and logistics providers and maintain long-term relationships with them.
3. **Research and Marketing:** We collaborate with market research agencies for global and domestic insights and with creative agencies to showcase our offerings at various exhibitions. Our teams also track cutting-edge technology trends across our own value chains as well as those of our target industries.
4. **Sales and Development:** Our dedicated sales representatives are regularly trained on product, process and application, beside selling skills to ensure engagement with customers and help improve their operational efficiency.

We are co-working with various stakeholders in India and overseas to strengthen our market presence and footprint. Our Specialty Alumina business is enhancing our local presence in international markets like Japan, USA, Europe by opening offices and supply centres in strategic locations.

Customer Satisfaction

We follow a bottom-up and top-down approach to gain a holistic understanding of customer perceptions. The NPS rating obtained from customers through our dedicated call centre is captured in our 'Mission Happiness' platform.

We conduct a top-down NPS survey biennially for our Specialty Alumina business to capture feedback from customers on various parameters like product quality, availability, pricing, order process, services, etc.

During FY 2023-24, we achieved a Net Promoter Score (NPS) of 80% for Copper business and a score of 75% for Specialty Alumina business, using the bottom-up and top-down approach respectively. Novelis received a customer satisfaction score of 86.1% in the reporting period.

We will be conducting NPS survey for Primary and FRP in FY 2025-26. At Hindalco, we aim to enhance customer service through customer-centric initiatives and digital processes.

For example, we have digitalised our order-taking system through Oracle and Ekaayan, which integrates sales and production departments and ensures seamless order fulfillment. Going forward, we are planning to launch major business transformation initiatives in sales and operation planning, and new and improved CRM to support our expansion plans and elevate the customer experience.

In the Specialty Alumina business, we are set to launch Sales and Operational Planning digital transformation project aimed at enhancing our customer service. We are also upgrading our ERP systems for a more robust communication between sales, production, planning and quality. Additionally, we are working to drive sustainable customer centricity in sales and marketing by leveraging a CRM solution to revisit, redefine, and harmonise processes across the business units.

NET PROMOTER SCORE

SBU	NPS	Top Down NPS Score	Next Survey Planned
Extrusions	FY 2022-23	65	FY 2024-25
Water Treatment Chemicals	FY 2023-24	81	FY 2025-26
Refractories	FY 2023-24	71	FY 2025-26
Ceramics	FY 2023-24	77	FY 2025-26
Flame retardants	FY 2023-24	71	FY 2025-26

Customer Grievance Redressal

We ensure prompt resolution of customer grievances through our Customer Relationship Management (CRM) system. Each concern or complaint is addressed within a specified Turn Around Time, utilising a defined escalation process.
To ensure faster and more efficient resolution of complaints, we conduct root cause analysis of the issue and provide Corrective and Preventive Actions (CAPA) in the system before closing the ticket. Our commitment to enhancing customer experience includes soliciting customer feedback through regular visits and meetings.

In FY 2023-24, we received 45 customer complaints for copper and 33 for specialty alumina. All reported complaints for both businesses have been successfully resolved. Our proactive post-sales services and improved customer engagement is the reason for a reduction in the total number of customer complaints reported for our Copper business from 84 in FY 2022-23 to 45 in FY 2023-24.

For primary aluminium, we received 52 complaints, and all are resolved. There is a 5% reduction compared to the previous year. However, for our FRP and Foil businesses, we received 603 complaints and 75 are under resolution.

In furtherance to this, during FY 2023-24, there were no reported instances of breach of customer privacy and loss of customer data, neither from outside parties nor regulatory bodies.

In the Specialty Alumina business, we have a robust mechanism to inform our customers of any disruptions. When a grade is discontinued from production, we ensure adequate inventory or safety stock is available, and communicate the discontinuation to the customer with a 6-month to 1-year notice period. We recommend similar or substitute grades and share technical data sheets, allowing the customer to choose based on their requirements.

Product Health and Safety

Product health and safety are non-negotiable priorities for our organisation. We understand the profound impact our products can have on the well-being of our customers and communities.
We comply with stringent quality standards and protocols to ensure the health and safety of our products.

We serve both Business-to-Business (B2B) and Business-to-Customer (B2C) segments and ensure adherence to the mandated standards. All our specialty alumina products come under the non-hazardous category. We share material safety data sheet with our customers.

100% of our products are assessed for health and safety impacts. During the year, there were no reported incidents of non-compliance concerning product health and safety norms and standards.

At Hindalco, we are committed to responsible production and sourcing of aluminium. 8 of our plants- Belur, Kuppam, Renukoot, Alupuram, Hirakud FRP, Belagavi, Mouda, and Taloja earned certification from the Aluminium Stewardship Initiative (ASI).

In FY 2023-24, no incidents of non-compliance were reported regarding marketing communications, product and service information, or labelling. All our significant products are covered by, and assessed for, compliance with procedures on product and service information and labelling.

Public Policy Advocacy

We follow a structured approach towards public policy advocacy and our strategy guides us to efficiently collaborate with policymakers on formulating new policies and modify/update existing policies by way of representation in various international, national and state level industry bodies and associations. Our strategy involves following a solution-based approach in all our interactions with policy makers. We not only voice our concerns but also explore solutions collaboratively with industry and government stakeholders in regions/countries where we have significant operations. Through this strategy, we approach any advocacy issue with an intention to maximise value not only for our Company, but also for the government and society at large. Our advocacy initiatives are backed by in-depth research and analysis providing a holistic perspective on key industry issues which has helped us build credibility with the policy makers over the years.

In all our advocacy initiatives, we follow a cooperative, fact-based, collaborative, proactive and solution-based approach. Through our industry associations, we engage with various ministries such as Coal, Power, Railways, New and Renewable Energy, Environment, Forest and Climate Change, Ministry of Finance, Commerce, Mines and think tanks such as NITI Aayog.

At Hindalco, we have established a credible and structured process of interaction with policymakers, trade associations, and other relevant stakeholders. We have been closely working with industry members on relevant matters. All our advocacy initiatives are driven in a structured manner through our Corporate Office in Mumbai through the Policy Advocacy Team. The head of policy advocacy reports to the Managing Director. The team works in collaboration with various function-heads and teams such as Mining, Operations, Marketing, Sustainability and Legal teams for interventions on various advocacy issues including sustainability and climate change.

As regulatory risk is one of the top 10 identified risks, we have a governance mechanism in place, wherein our Risk Management and ESG Committee oversees our advocacy related activities (memberships with trade associations), communicates them to the Board, and reviews them on a quarterly basis. A monthly update on key policy issues including climate policy positions and activities of trade associations are provided to the Managing Director.

Further, a review is also done by the Group's Business Review Committee quarterly and the Chairman annually.

Both at the Group and Company level we are aligned with the Paris Agreement and are working tirelessly to contribute to India's Nationally Determined Contributions (NDCs). The stance of our associations and other partnering institutions is in favour of advocating for climate-change related impacts. We have a systematic process to ensure that when we become members of new trade associations, their philosophy and public policy stance is aligned with us and the government. We carefully evaluate any misalignment between changed policy positions of trade associations and our own climate position. The details of our associations and memberships are covered under the section of 'Our Key Associations and Memberships'.

The charitable and political contributions are in alignment with our policies. The details of our charitable contributions are covered in the CSR section of the report, and the political contributions to local, regional, or national political campaigns/ organisations/ candidates are covered in the Notes (form a part of the Consolidated Financial Statements). During the reporting year, there were no corrective actions taken or underway due to any anti-competitive conduct based on adverse orders from regulatory bodies.

Adhaaraa is Hindalco CSR's first retail store launched in collaboration with the Ministry of Mines, Government of India

We contributed ₹1.82 crore to our affiliated trade associations which primarily consist of annual subscription fees. There were no contributions in lobbying, interest representation or similar and other (e.g. spending related to ballot measures or referendums).

₹1.82 crore
Contributed to our affiliated trade associations

CONTRIBUTIONS AND OTHER SPENDING *(in ₹ crore)*

	FY 2022-23	FY 2023-24
Trade associations or tax-exempt groups	1.08	1.82

The details of contributions towards trade associations is as follows

CONTRIBUTIONS TOWARDS TRADE ASSOCIATIONS *(in ₹ crore)*

Trade Association	Contributions (in ₹ crore)
International Aluminium Institute	1.04
Confederation of Indian Industry	0.38
The Federation of Indian Chambers of Commerce and Industry	0.28
Others	0.12

We are keenly aware of the impact of the energy intensive nature of our operations. In line with our commitment towards climate action and sustainability, we are part of various committees and industry bodies which play a significant role in shaping and formulating policies related to environment and climate action. For example, our commitment to increase the adoption of sustainable practices and transparent disclosures has been the guiding force in supporting Bureau of Indian Standards (BIS) (under the Department of Consumer Affairs, GoI) integrate the dimension of sustainability in Indian standards. We are an active member of this committee set up by BIS.

In India, our senior leaders are collaboratively working with the Ministry of Mines and are members of the Ministry of Mines' Greening Committee – which is set up with an objective of providing inputs for formulating sustainable mining practices and guidelines for India.

Our Company also undertook commitment of reducing the specific energy consumption (SEC) through the Perform, Achieve, and Trade (PAT) mechanism since its inception. Ever since Bureau of Energy Efficiency (BEE) introduced PAT cycle-I in 2012, we have continuously participated in the reduction initiatives. Most recently, we have been issued 248,706 Energy Savings Certificates (ESCerts). Detailed information on our energy initiatives is covered under initiatives to reduce energy consumption and emissions section of the Natural Capital. As India now transitions from PAT to Carbon Credit Trading Scheme, we are actively participating in the Bureau of Energy Efficiency's consultation process on developing India's Carbon Market, contributing proactively to the formulation of policies and guidelines for Carbon Credit Trading Scheme. We are an active member of NITI Aayog's decarbonisation Committee responsible for mapping the decarbonisation pathway for the aluminium sector in India.

To bring about transformation across the ecosystem, we engage with relevant stakeholders at the national levels through various forums like FICCI, CII, BCCI, FIMI, FEIO, etc. and the International Aluminium Institute (IAI) at a global level. At the Group level, our CSO is an active member of the CII and FICCI's Climate Change and Environment Committee and also chairs FICCI's green procurement sub-committee and co-chairs sustainability and climate change committee of Bombay Chamber of Commerce and Industries (BCCI). We chair the Mumbai chapter of CII GreenCo and have conducted quarterly meetings in Taloja to share and discuss the best practices in metals and mining industry pertaining to emulsion treatment, zero liquid discharge, rainwater harvesting, and waste management. We even participated in various initiatives supporting exploration of phytoremediation and xeriscape in plantations, and digital platform for water and effluent management system. Internationally, the Group is a member of World Business Council of Sustainable Development (WBCSD) for over 10 years now. Our senior leaders are also members of the International Aluminium Institute (IAI). The Group CSO is also the co-chair of Energy and Environment committee of IAI and also on the South Asia advisory board of Global Reporting Initiative (GRI). ABG is also a founding member of RECEIC (Resource Efficiency Circular Economy Industry Coalition) set up under India's G20 presidency, hosted by FICCI which showcases our leadership position in matters related to climate change and sustainability related policies.

As a part of IAI, we voluntarily collaborated with the Mission Possible Partnership (MPP), a global coalition formed with a mission to accelerate the decarbonisation journey of heavy industries and transport at speed and scale. MPP has suggested an Aluminium Transition Strategy with a detailed outline, approach, and resources required to achieve the 'Net Zero' target by 2050. Moreover, at COP28 in Dubai, we were one of the signatories to join the new initiative to track and report the member companies' ambition to reduce GHG emissions and report the total global greenhouse gas emissions of the aluminium industry in the public domain on an annual basis. The companies will have to action the commitment by undertaking the following:

Actions for IAI Member Companies

- Stating a long-term GHG emission reduction target by 31 December 2024 – preferably net-zero and preferably by 2050 – and a plan to achieve the target
- Identify an interim greenhouse gas emission reduction milestone – ideally by 2030 – to ensure early progress can be tracked
- Disclose progress annually including all facilities utilising the "IAI Good Practice for Calculation of Primary Aluminium IAI's Carbon Footprint Methodology " and the " IAI Guidelines on Transparency – Aluminium Scrap " as the calculation references

To fulfil the above stated commitments, we are one of the first in India to make the 'Near Zero Commitment' by 2050 along with 6 Indian companies. The target setting for all the 6 companies was facilitated by TERI. In furtherance to this, we have been taking necessary steps to reduce carbon footprint across our operations. One such initiative undertaken in the reporting period is that we have signed a Power Purchase Agreement (PPA) with Ayana Renewable Power which will be supplying 100 MW Round-The-Clock (RTC) renewable energy to smelter plants in Odisha.

Synergies to Build a Sustainable Tomorrow

Dalla Stone Quarry

In FY 2023-24, we took an initiative to develop SOP for eco-restoration of an abandoned stone quarry with bauxite residue, bottom ash and local soil. We worked with some of the prestigious think tanks and regulatory bodies like the AAI (Aluminium Association of India), CPCB (Central Pollution Control Board), IIFM (Indian Institute of Forest Management), Bhopal, IIT BHU (Indian Institute of Technology (BHU), Varanasi), and MNNIT (Motilal Nehru National Institute of Technology) Allahabad, for the initiative. This SOP will serve as the guideline for commencing and implementing afforestation and eco restoration of abandoned quarries and mines, across the country. This initiative will further restore flora, fauna and topography of the respective sites.

Bauxite Residue, Fly Ash Road Project

To establish successful application of bauxite residue, we are working with NHAI (National Highways Authority of India), CRRI (Central Road Research Institute), IRC (Indian Road Congress), IMMT (Institute of Minerals and Materials Technology), Bhubaneshwar, HG Infra, CPCB and SPCB (State Pollution Control Board). As part of the initiative, the roads will be built using bauxite residue and fly ash as an embankment and sub-base material.

A view of Dalla Stone Quarry

In the USA, Novelis has been actively engaged in advocacy efforts across multiple states to enact legislation that would support extended producer responsibility and offer recycling refunds. In addition, at the federal level, the Company is supporting 2 bills in support of better recycling infrastructure through public-private partnerships. These advocacy initiatives enjoy the support of the U.S. Chamber of Commerce, National Association of Manufacturers, and Aluminium Association – and Novelis is an active member of all these associations.

As governments around the world develop carbon import taxes, Novelis is joining its industry associations in advocacy initiatives with the governments in regions where the company operates (i.e., UK, Brazil, and Europe) – to ensure that the border measures prevent carbon leakage and yet do not serve as improper protectionism. Novelis is an active contributor in the CBAM (Carbon Border Adjustment Mechanism) task force of European Aluminium and is advocating within the task force and directly with the EU Commission for CBAM to incentivise circularity. The Company is also active on the EU Packaging and Packaging Waste Regulation that promises to incentivise circularity, as well as in the automotive and transport group of European Aluminium to encourage EU regulations supporting automotive recycling.

Further, Novelis is very active in supporting initiatives to increase the availability of low carbon primary aluminium worldwide. Novelis is a founding member of the World Economic Forum's First Mover's Coalition for aluminium. In this regard, the Company has committed to purchase 10% of its primary aluminium as ultra-low carbon and 50% of inputs from scrap sources. In addition, Novelis has done advocacy on this point in national jurisdictions. For example, Novelis joined a coalition of companies organised by SAFE (Securing America's Future Energy) to highlight the criticality of aluminium and advocate with the US Department of Energy and other US government agencies on the need for more low carbon primary production in the United States.

Novelis was the only secondary aluminium producer to submit comments to the U.S. International Trade Commission (ITC) and to testify at the hearing for the ITC's investigation on "Greenhouse Gas Emissions Intensities of the US Steel and Aluminium Industries at the Product Level". In this proceeding, the ITC is establishing the metrics for measuring the carbon intensity of the US aluminium industry that can be used by the US government in its international negotiations on low carbon standard setting.

In the Spotlight

Hindalco

- Hindalco achieved the Top 1% S&P Global Corporate Sustainability Assessment (CSA) Score 2023 in the aluminium industry
- Hindalco in Top 10 of the 'Great Place to Work' list in Health and Wellness for 2024
- Hindalco recognised among India's Best Workplaces™ in Manufacturing 2024 in Top 50
- Hindalco won Energy Transition Changemaker Award at COP28 held in Dubai

Belagavi

- Belagavi won CII National Award for Environment Best Practices 2023 for Most Innovative Environment Project
- Belagavi won Unnatha Suraksha Puraskara Safety Awards 2023 by National Safety Council, Karnataka Chapter
- Belagavi won India Manufacturing Excellence Award (IMEA) – 2023-Gold Award (861/1200).
- Belagavi won Gold Award in F&S – Indian Manufacturing Excellence Award (IMEA) and 'Leaders Award' in F&S Sustainability 4.0
- Belagavi won Gold in India Green Manufacturing Challenge 2023 (IGMC) from International Research Institute for Manufacturing -India.

Renukoot

- Renukoot won 1st prize in National Energy Conservation Award 2023
- Renukoot won India Manufacturing Excellence Awards 2023

Hirakud *FRP won Silver Award from the CII-IGBC Green co-rating system 2024*

Renukoot *won 1st prize in National Energy Conservation Award 2023*

Samri & Bagru

- Samri & Bagru Bauxite Mines awarded International Safety Award by British Safety Council, UK
- Bagru Mines won Gold award in National Award for Manufacturing Challenges assessment 2023 by International Research Institute for Manufacturing, India
- Samri Bauxite mines won Platinum award in sustainability excellence by FAME National award 2023

Hirakud

- Hirakud FRP R&D dept won Non-Ferrous Best Performance Award- Nov 2023 from Indian Institute of Metals
- Hirakud FRP won Silver Award from the CII-IGBC Green co-rating system 2024
- Hirakud Power & Smelter received Atmanirbhar Factory Award in the 2nd edition of the Atmanirbhar Factory Recognition Programme from International Research Institute for Manufacturing, India

Utkal *won 1st FICCI Gold Award for Excellence in Maintenance Systems 2023*

Belagavi *won CII National Award for Environment Best Practices 2023 for Most Innovative Environment Project*

Novelis

- Novelis China received the Decade Achievement Award from Chery Jaguar Land Rover (CJLR)
- Novelis China received the Excellent Supplier Award from Dongfeng Nissan
- Novelis won the Exploration and Innovation Award from FAW-Volkswagen in 2023
- Novelis won the Gold Value Leader Award and the Bronze Award for Sustainability Leader at DENSO's 2022 Business Partner of the Year Awards
- Novelis won Embraer's Best Supplier Awards 2022 in the "Raw Materials" category
- Novelis Wins Outstanding Corporate Innovator award 2023 from the Product Development and Management Association

Aditya

- Aditya won India Manufacturing Excellence Award (Platinum certificate of merit in manufacturing) from Frost & Sullivan
- Aditya won F&S Sustainability 4.0 award (Platinum certificate of merit in sustainability) from Frost & Sullivan
- Aditya won Platinum award in 'Best Application and uses of Digitalisation & Technology for Safety' from CII National EHS Circle
- Aditya won Energy Management Leadership award from Clean Energy Ministerial platform of United Nations Industrial Development Organisation for leadership in energy management – 2023
- Aditya won State Pollution Control Excellence Award 2023 from Govt of Odisha – OSPCB
- Aditya won UNDP Mahatma Award for Biodiversity management from Mahatma Foundation
- Aditya won Performance Excellence Award for Best Manufacturing Practices at the IMC Ramkrishna Bajaj National Quality Awards (RBNQA)
- Aditya's Five Quality Circle Teams won Gold Award in ICCQC'2023 – International convention on Quality Control Circles, Beijing – China – Nov'2023
- Aditya's Highest Export in 2020-21 & 2021-22 – Award of Certificate of Excellence for the year 2020-21 by Directorate of Export Promotion and Marketing, GOI.

Muri

- Muri won Gold at National Awards for Manufacturing Competitiveness
- Muri won National Energy Conservation Award 2023

Utkal

- Utkal won 5S Par Excellence Award 2023 for Central Lab (Galaxy) in 9th National Conclave on 5S
- Utkal won 1st FICCI Gold Award for Excellence in Maintenance Systems 2023
- Utkal won Frost & Sullivan IMEA 4.0 (India Manufacturing Excellence Award) 2023 Gold Award
- Utkal won India Green Manufacturing Challenge (IGMC) 1st Runners Up (Apex) along with Gold Award 2023
- Utkal won 7th CSR Health Impact Award for Project UANAT under CSR Sustainable Livelihood Project from IHW council
- Utkal won Net Zero Torch Bearers "Excelsior" – the highest award by IRIM for demonstrating excellence to achieving net-zero environmental impact
- Utkal won Golden Bird National Platinum Award 2023-24 for Baphlimali Mines for outstanding project on Safety Culture in the mining industry
- Utkal Alumina received Atmanirbhar Nation Builder Award in the second edition of the Atmanirbhar Factory Recognition Programme from International Research Institute for Manufacturing, India.

GRI Content Index

Statement of use	Hindalco Industries Limited has reported in accordance with the GRI Standards for the period 1 April 2023 to 31 March 2024.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	GRI 14: Mining Sector 2024

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
General disclosures							
GRI 2: General Disclosures 2021	2-1 Organisational details	Hindalco at a glance	14				
	2-2 Entities included in the organisation's sustainability reporting	About the report	9				
	2-3 Reporting period, frequency and contact point	About the report	9				
	2-4 Restatements of information	About the report	9				
	2-5 External assurance	About the report, Independent assurance statement	9				
	2-6 Activities, value chain and other business relationships	Our businesses at a glance, Our Value chain, Markets served	16-17,22-23, 24-25				
	2-7 Employees	Human Capital | Organisational effectiveness	90-91				
	2-8 Workers who are not employees	Human Capital | Organisational effectiveness	91				
	2-9 Governance structure and composition	Corporate Overview, Board of Directors and Leadership Team, Corporate Governance Report	335-344				
	2-10 Nomination and selection of the highest governance body	Corporate Governance Report	348-350				
	2-11 Chair of the highest governance body	Corporate Governance Report	335-359				
	2-12 Role of the highest governance body in overseeing the management of impacts	Corporate Governance Report	335-359				
	2-13 Delegation of responsibility for managing impacts	Corporate Governance Report	335-359				
	2-14 Role of the highest governance body in sustainability reporting	Natural Capital | Environmental Management	141				
	2-15 Conflicts of interest	Business Responsibility & Sustainability Report	318				
	2-16 Communication of critical concerns	Stakeholder Engagement, Corporate Governance Report	50-51, 334				
	2-17 Collective knowledge of the highest governance body	Corporate Governance Report	335-359				
	2-18 Evaluation of the performance of the highest governance body	Corporate Governance Report	348-350				
	2-19 Remuneration policies	HIL remuneration Policy	102				
	2-20 Process to determine remuneration	HIL remuneration Policy	102				
	2-21 Annual total compensation ratio	Annexure I - Remuneration of Directors & Employees	272				
	2-22 Statement on sustainable development strategy	Message from Managing Director	32-35				
	2-23 Policy commitments	Human Capital | Human Rights	114				
	2-24 Embedding policy commitments	Human Capital | Human Rights	114-115				
	2-25 Processes to remediate negative impacts	Corporate Governance Report	334				
	2-26 Mechanisms for seeking advice and raising concerns	Corporate Governance Report	334				
	2-27 Compliance with laws and regulations	Natural Capital | Environment Management	141, 154				
	2-28 Membership associations	Our Key Associations and Memberships	56-57				
	2-29 Approach to stakeholder engagement	Stakeholder Engagement and Materiality Assessment	50-52				
	2-30 Collective bargaining agreements	Human Capital | Human Rights | Grievance Mechanism and Remediation Procedures	118-119				
Material topics							
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Materiality Assessment	52-55				
	3-2 List of material topics	Materiality Assessment	52-55				

GRI Content Index

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
Energy and GHG emissions Management							
GRI 3: Material Topics 2021	3-3 Management of material topics	Natural Capital | Energy Consumption	145-148				14.1.1
GRI 302: Energy 2016	302-1 Energy consumption within the organisation	Natural Capital | Energy Consumption	145				14.1.2
	302-2 Energy consumption outside of the organisation			Omitted	Information unavailable/ incomplete	Monitoring mechanism is under process	14.1.3
	302-3 Energy intensity	Natural Capital | Energy Intensity	147				14.1.4
	302-4 Reduction of energy consumption	Natural Capital | Initiatives to reduce energy consumption and emissions	152				
	302-5 Reductions in energy requirements of products and services	-	-	Omitted	Not applicable		
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Natural Capital | GHG Emissions	149				14.1.5
	305-2 Energy indirect (Scope 2) GHG emissions	Natural Capital | GHG Emissions	149				14.1.6
	305-3 Other indirect (Scope 3) GHG emissions	Natural Capital | GHG Emissions | Scope 3 emissions	150				14.1.7
	305-4 GHG emissions intensity	Natural Capital | GHG Emission | GHG Emissions Intensity	151				14.1.8
	305-5 Reduction of GHG emissions	Natural Capital | Energy consumption | Initiatives to reduce energy consumption and emissions	152				14.1.9
	305-6 Emissions of ozone-depleting substances (ODS)	Natural Capital | GHG Emission | Ozone Depleting Substances (ODS)	150-151				
Waste and Hazardous Materials Management							
GRI 3: Material Topics 2021	3-3 Management of material topics	Natural Capital | Waste Management	164-171				14.5.1
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Natural Capital | Waste Management	164-171				14.5.2
	306-2 Management of significant waste-related impacts	Natural Capital | Waste Management	164-171				14.5.3
	306-3 Waste generated	Natural Capital | Waste Management	166-167				14.5.4
	306-4 Waste diverted from disposal	Natural Capital |Waste Management	168-169				14.5.5
	306-5 Waste directed to disposal	Natural Capital | Waste Management	168-169				14.5.6
Water Management							
GRI 3: Material Topics 2021	3-3 Management of material topics	Natural Capital | Water Management	155-162				14.7.1
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Natural Capital | Water Management	155-162				14.7.2
	303-2 Management of water discharge-related impacts	Natural Capital | Water Management | Effluent discharge	155-162				14.7.3
	303-3 Water withdrawal	Natural Capital | Water Withdrawal	157-158				14.7.4
	303-4 Water discharge	Natural Capital | Water Management | Effluent discharge	162				14.7.5
	303-5 Water consumption	Natural Capital | Water Consumption	158-159				14.7.6
Market presence							
GRI 3: Material Topics 2021	3-3 Management of material topics	Hindalco at a Glance, Financial Capital	14, 58				14.17.1
Economic performance							
GRI 3: Material Topics 2021	3-3 Management of material topics	Financial Capital | Economic Value Creation	60-61				14.9.1
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Financial Capital | Economic Value Creation	61				14.9.2
	201-2 Financial implications and other risks and opportunities due to climate change	Natural Capital | Climate related risks and opportunities	142-143				
	201-3 Defined benefit plan obligations and other retirement plans	Consolidated Financial Statements	510-511				
	201-4 Financial assistance received from government	Financial Statements	240, 402				14.23.3
Compliance Management							
GRI 3: Material Topics 2021	3-3 Management of material topics	Natural Capital | Environmental Management	140-141				
Local communities/Community Relationship							
GRI 3: Material Topics 2021	3-3 Management of material topics	Social and Relationship Capital	180-196				14.10.1

GRI Content Index

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programmes	Social and Relationship Capital | Engaging with Local Communities	181-196				14.10.2
	413-2 Operations with significant actual and potential negative impacts on local communities	Social and Relationship Capital | Engaging with Local Communities	181-196				14.10.3
Air Emissions							
GRI 3: Material Topics 2021	3-3 Management of material topics	Natural Capital | Air Emissions	153-154				
GRI 305: Emissions 2016	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Natural Capital | Air Emissions	154				14.3.2
Occupational health and safety							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Occupational Health and Safety	119-123				14.16.1
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Human Capital | Occupational Health and Safety	120-121				14.16.2
	403-2 Hazard identification, risk assessment, and incident investigation	Human Capital | Hazard Identification and Risk Assessment	119-123				14.16.3
	403-3 Occupational health services	Human Capital Occupational | Health Services	120-122				14.16.4
	403-4 Worker participation, consultation, and communication on occupational health and safety	Human Capital | Safety Initiative	122,123				14.16.5
	403-5 Worker training on occupational health and safety	Human Capital | Competency Building	105				14.16.6
	403-6 Promotion of worker health	Human Capital | Safety Initiative	122-123				14.16.7
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Human Capital | Occupational Health Services Human Capital | Safety Initiative	122-123				14.16.8
	403-8 Workers covered by an occupational health and safety management system	Human Capital | Occupational Health Services Human Capital | Safety Initiative	120-123				14.16.9
	403-9 Work-related injuries	Human Capital | Hazard Identification and Risk Assessment	121-122				14.16.10
	403-10 Work-related ill health	Human Capital | Hazard Identification and Risk Assessment	121-122				14.16.11

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
Biodiversity							
GRI 3: Material Topics 2021	3-3 Management of material topics	Biodiversity Management	174-177				
GRI 101: Biodiversity 2024	101-1 Policies to halt and reverse biodiversity loss	Biodiversity Management	174-175				
	101-2 Management of biodiversity impacts	Biodiversity Management	174-177				
	101-3 Access and benefit-sharing			Omitted	Not applicable		
	101-4 Identification of biodiversity impacts	Biodiversity Management	174-177				
	101-5 Locations with biodiversity impacts	Biodiversity Management	174-177				
	101-6 Direct drivers of biodiversity loss	Biodiversity Management	174-177				
	101-7 Changes to the state of biodiversity	Biodiversity Management	174-177				
	101-8 Ecosystem services	Biodiversity Management	174-177				
Supply Chain Management							
GRI 3: Material Topics 2021	3-3 Management of material topics	Social and Relationship Capital | Responsible value chain	197-201				14.17.1
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Social and Relationship Capital | Supplier Onboarding and Screening Process	198-201				
	308-2 Negative environmental impacts in the supply chain and actions taken	Social and Relationship Capital | Supplier Onboarding and Screening Process	198-201				
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Social and Relationship Capital | Supplier Onboarding and Screening Process	198-201				14.17.9
	414-2 Negative social impacts in the supply chain and actions taken	Social and Relationship Capital | Supplier Onboarding and Screening Process	198-201				14.17.10
Materials							
GRI 3: Material Topics 2021	3-3 Management of material topics	Natural Capital | Raw Material Management	163				
GRI 301: Materials 2016	301-1 Materials used by weight or volume	Natural Capital | Raw Material Management	163				
	301-2 Recycled input materials used	Natural Capital | Raw Material Management	163				
	301-3 Reclaimed products and their packaging materials	Natural Capital | Raw Material Management	163				

GRI Content Index

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
Diversity and equal opportunity							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Diversity, Equity and Inclusion	99-102				14.21.1
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Human Capital | Diversity, Equity and Inclusion	99-102				14.21.5
	405-2 Ratio of basic salary and remuneration of women to men	Human Capital | Diversity, Equity, and Inclusion | Gender Pay and Remuneration	102				14.21.6
Non-discrimination							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Grievance Mechanism and Remediation Procedures	118, 119				14.21.1
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Human Capital | Grievance Mechanism and Remediation Procedures	118, 119				14.21.7
Freedom of association and collective bargaining							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital	118				14.20.1
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human Capital | Human Rights | Grievance Mechanism and Remediation Procedures	118				14.20.2
Child labor							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Human Rights	114-119				14.18.1
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Human Capital | Human Rights | Human Rights Policy Commitment	114-119				14.18.2
Forced or compulsory labor							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Human Rights	114-119				14.19.1
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human Capital | Human Rights | Human Rights Policy Commitment	114-119				14.19.2
Security practices							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Human Rights	116				14.14.1
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Human Capital | Human Rights	116				14.14.2
Rights of indigenous peoples							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital	118-119				14.11.1
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Human Capital | Grievance redressal and Remediation Procedures	118-119				14.11.2

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
Public policy							
GRI 3: Material Topics 2021	3-3 Management of material topics	Social and Relationship Capital | Consolidated Financial Statements	206-209, 402				14.24.1
GRI 415: Public Policy 2016	415-1 Political contributions	Consolidated Financial Statements	538				14.24.2
Customer health and safety							
GRI 3: Material Topics 2021	3-3 Management of material topics	Social and Relationship Capital | Fostering Customer Relationships	206				
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Social and Relationship Capital | Fostering Customer Relationships	206				
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Social and Relationship Capital | Product Health and Safety	206				
Marketing and labeling							
GRI 3: Material Topics 2021	3-3 Management of material topics	Social and Relationship Capital | Fostering Customer Relationships	205-206				
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	Social and Relationship Capital | Product Health and Safety	206				
	417-2 Incidents of non-compliance concerning product and service information and labeling	Social and Relationship Capital | Product Health and Safety	206				
	417-3 Incidents of non-compliance concerning marketing communications	Social and Relationship Capital | Product Health and Safety	206				
Customer privacy							
GRI 3: Material Topics 2021	3-3 Management of material topics	Social and Relationship Capital | Customer Centricity	205-206				
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Social and Relationship Capital | Customer grievance redressal	205-206				

GRI Content Index

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
Anti-corruption							
GRI 3: Material Topics 2021	3-3 Management of material topics	Corporate Governance Report, Human Capital	334, 118				14.22.1
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Corporate Governance Report, Human Capital	334, 118				14.22.2
	205-2 Communication and training about anti-corruption policies and procedures	Corporate Governance Report, Human Capital	334, 118				14.22.3
	205-3 Confirmed incidents of corruption and actions taken	Corporate Governance Report I Business Responsibility and Sustainability Report	334, 317				14.22.4
Anti-competitive behaviour							
GRI 3: Material Topics 2021	3-3 Management of material topics	Corporate Governance Report	334				
GRI 206: Anti-competitive behaviour 2016	206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	Corporate Governance Report, Business Responsibility & Sustainability Report	334, 330				
Tax							
GRI 3: Material Topics 2021	3-3 Management of material topics	Statutory Reports and Financial Statements	240, 402				14.23.1
GRI 207: Tax 2019	207-1 Approach to tax	Statutory Reports and Financial Statements	240, 402				14.23.4
	207-2 Tax governance, control, and risk management	Statutory Reports and Financial Statements	240, 402				14.23.5
	207-3 Stakeholder engagement and management of concerns related to tax	Statutory Reports and Financial Statements	240, 402				14.23.6
	207-4 Country-by-country reporting	Statutory Reports and Financial Statements	240, 402				14.23.7
Employment							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Organisational Effectiveness	88-110				14.17.1
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Human Capital | Organisational Effectiveness	90, 98				14.17.3
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Human Capital | Employee Well-being	111-112				14.17.4
	401-3 Parental leave	Human Capital | Employee Well-being	113				14.17.5

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	Page Number	OMISSION			GRI SECTOR STANDARD REF. NO.
				REQUIREMENT(S) /OMITTED	REASON	EXPLANATION	
Labor/management relations							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital | Human Rights	119				14.17.1
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Human Capital | Human Rights	119				14.17.6
Training and education							
GRI 3: Material Topics 2021	3-3 Management of material topics	Human Capital	103-107				14.17.1
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Human Capital | Leadership Development Programmes	106				14.17.7
	404-2 Programmes for upgrading employee skills and transition assistance programmes	Human Capital | Coaching Culture	103-105,107-110				14.17.8
	404-3 Percentage of employees receiving regular performance and career development reviews	Human Capital | Career Development and Succession	97				

Topics in the applicable GRI Sector Standards determined as not material

Topic	Explanation
GRI 14: Mining Sector 2024	
Topic 14.12 Land and resource rights	Not applicable
Topic 14.13 Artisanal and small-scale mining	Not applicable
Topic 14.15 Critical incident management	Not applicable
Topic 14.25 Conflict-affected and high-risk areas	Not applicable

UNGC Principles

UNGC Principles	Section in Report	Page No.
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.	Human Capital	114-119
Principle 2: Make sure that they are not complicit in human right abuses.	Human Capital	114-119
Principle 3: Business should uphold the freedom of association and the effective recognition of the right to collective bargaining	Human Capital	114-119
Principle 4: The elimination of all forms of forced and compulsory labour.	Human Capital	114-119
Principle 5: The effective abolition of child labour	Human Capital	114-119
Principle 6: The elimination of discrimination in respect of employment and occupation.	Human Capital	114-119
Principle 7: Business should support a precautionary approach to environmental challenges.	Natural Capital	138-177
Principle 8: Undertake initiatives to promote greater environmental responsibility.	Natural Capital	138-177
Principle 9: Encourage the development and diffusion of environmentally friendly technologies.	Natural Capital	138-177
Principle 10: Business should work against corruption in all its forms, including extortion and bribery.	Corporate Governance	334

United Nations Sustainable Development Goals (UN SDGs)

Sustainable Development Goal (SDG)	Section in the report	Page number
SDG 1 No Poverty	Social and Relationship Capital	179
SDG 2 Zero Hunger	Social and Relationship Capital	179
SDG 3 Good health and wellbeing	Human Capital, Social and Relationship Capital	85, 179
SDG 4 Quality Education	Human Capital, Social and Relationship Capital	85, 179
SDG 5 Gender equality	Human Capital, Social and Relationship Capital	85, 179
SDG 6 Clean Water and Sanitation	Natural Capital, Social and Relationship Capital	139, 179
SDG 7 Affordable and Clean Energy	Natural Capital, Social and Relationship Capital	139, 179
SDG 8 Decent work and Economic Growth	Social and Relationship Capital, Financial Capital, Manufactured Capital, Human Capital	179, 59,67,85
SDG 9 Industry Innovation and Infrastructure	Intellectual capital, Natural Capital, Manufactured Capital, Social and Relationship Capital	125,139,67,179
SDG 10 Reduced inequality	Human Capital, Social and Relationship Capital	85, 179
SDG 11 Sustainable Cities and Communities	Social and Relationship Capital	179
SDG 12 Responsible Consumption and Production	Natural Capital, Intellectual Capital, Manufactured Capital, Social and Relationship Capital	125,139,67,179
SDG 13 Climate Action	Natural Capital	139
SDG 15 Life on Land	Natural Capital	139

Sustainability Accounting Standards Board (SASB)

Sustainability Disclosure Topics & Accounting Metrics

Topic	Accounting Metric	Code	Location
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	EM-MM-110a.1	Natural Capital | GHG Emissions (Page no. 149)
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	EM-MM-110a.2	Natural Capital | Net Zero (Page no. 142)
Air Quality	Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	EM-MM-120a.1	Natural Capital | Air Emissions (Page no. 153)
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	EM-MM-130a.1	Natural Capital | Energy Consumption (Page no. 145, 146)
Water Management	(1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	EM-MM-140a.1	Natural Capital | Water Management (Effluent discharge) (Page no. 155-162)
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	EM-MM-140a.2	Natural Capital | Water Management (Effluent discharge) (Page no. 162)
Waste & Hazardous Materials Management	Total weight of non-mineral waste generated	EM-MM-150a.4	Natural Capital | Waste Management (Page no. 167)
	Total weight of tailings produced	EM-MM-150a.5	Natural Capital | Waste Management (Mineral Waste Management, Tailings Management) (Page no. 170)
	Total weight of hazardous waste generated	EM-MM-150a.7	Natural Capital | Waste Management (Page no. 166-169)
	Total weight of hazardous waste recycled	EM-MM-150a.8	Natural Capital | Waste Management |Closing the Loop for a Better Tomorrow (Page no. 168-171)
	Number of significant incidents associated with hazardous materials and waste management	EM-MM-150a.9	Natural Capital | Waste Management (Page 166-171)
	Description of waste and hazardous materials management policies and procedures for active and inactive operations	EM-MM150a.10	Natural Capital | Waste Management (Page no. 166-169)
Biodiversity Impacts	Description of environmental management policies and practices for active sites	EM-MM-160a.1	Natural Capital | Biodiversity Management (Page no. 174-171)
	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	EM-MM-160a.3	Natural Capital | Biodiversity Management (Page no. 175)
Security, Human Rights & Rights of Indigenous Peoples	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	EM-MM-210a.1	Human Capital | Human Rights (Page no. 114-119)
	Percentage of (1) proved and (2) probable reserves in or near indigenous land	EM-MM-210a.2	Social and Responsible Capital (Rehabilitation, Resettlement, and Protection of Indigenous People) (Page no. 115)
	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	EM-MM-210a.3	Human Capital | Human Rights (Page no. 114-119)
Community Relations	Discussion of process to manage risks and opportunities associated with community rights and interests	EM-MM-210b.1	Human Capital | Human Rights (Page no. 114-119)
Labor Relations	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	EM-MM-310a.1	Human Capital | Human Right (Grievance Mechanism and Remediation Procedures) (Page no. 118-119)
Workforce Health & Safety	(1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees	EM-MM-320a.1	Human Capital | Occupational Health and Safety (Page no. 119)
Business Ethics & Transparency	Description of the management system for prevention of corruption and bribery throughout the value chain	EM-MM-510a.1	Corporate Governance Report (Page no. 334)

Activity Metrics

Activity Metric	Code	Location
Production of (1) metal ores and (2) finished metal products	EM-MM-000.A	Production Overview (Page no. 69)
Total number of employees, percentage contractors	EM-MM-000.B	Organisational Effectiveness (Page no. 90-91)

World Economic Forum (WEF)

Pillar	Theme	Disclosure Requirement	Section in the Report	Page No.
Principles of Governance	Governing purpose	Setting purpose	Leadership Messages (Message from the Managing Director)	32-35
	Quality of governing body	Governance body composition	Corporate Overview | Leadership Team	28-31
	Stakeholder Engagement	Material issues impacting stakeholders	Stakeholder Engagement and Materiality Assessment	50-55
	Ethical behaviour	Anti Corruption	Corporate Governance Report	334
		Protected ethics advice and reporting mechanisms	Corporate Governance Report	334
	Risk and opportunity oversight	Integrating risk and opportunity into business process	Risk and Opportunities	40-49
Planet	Climate Change	Greenhouse gas (GHG) emissions	Natural Capital | Climate Action: Adapt, Thrive and Survive, Energy Management, GHG Emissions	142-154
	Nature Loss	Land use and ecological sensitivity	Natural Capital | Biodiversity Management	174-177
	Fresh water availability	Water consumption and withdrawal in water-stressed areas	Natural Capital | Water Management	155-162
People	Dignity and Equality	Diversity and inclusion	Human Capital | Diversity, Equity and Inclusion	99-102
		Pay equality	Human Capital | Diversity, Equity and Inclusion | Gender Pay and Remuneration	102
		Wage level	Human Capital | Human Rights | Diversity, Equity and Inclusion | Gender Pay and Remuneration	102
		Risk of incidents of child, forced or compulsory labour	Human Capital | Human Rights | Social and Relationship Capital | Responsible value chain	114-119, 197
	Health and Well-being	Health and Safety	Human Capital | Occupational Health and Safety	119-123
	Skills for the Future	Training provided	Human Capital Development	103-110
Prosperity	Employment and Wealth Generation	Absolute number and rate of employment	Human Capital | Organisational Effectiveness	90-91
		Economic contribution	Financial Capital | Economic Value Creation	61
		Financial investment contribution disclosure	Statutory Reports and Financial Statements	240, 402
	Innovation of Better Products and Services	Total R&D expenses	Intellectual Capital | Unleashing Innovation Through Research and Development	127
	Community and Social Vitality	Community Investment	Financial Capital | Economic Value Creation	61
		Total tax paid	Statutory Reports and Financial Statements	240, 402

IFRS content index-S1

Reference Number	Disclosure Description	Location	Page Number
	Governance		
IFRS S1-27 (a)	The governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of sustainability-related risks and opportunities. Specifically, the entity shall identify that body(s) or individual(s) and disclose information about:	TCFD report | Governance Integrated Annual Report | Natural Capital – Environmental Management	4-7 141
	(i) How responsibilities for sustainability-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s)		
	(ii) How the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to sustainability-related risks and opportunities		
	(iii) How and how often the body(s) or individual(s) is informed about sustainability-related risks and opportunities		
	(iv) How the body(s) or individual(s) takes into account sustainability-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities; and		
	(v) How the body(s) or individual(s) oversees the setting of targets related to sustainability-related risks and opportunities, and monitors progress towards those targets, including whether and how related performance metrics are included in remuneration policies		
IFRS S1-27 (b)	Management's role in the governance processes, controls and procedures used to monitor, manage and oversee sustainability-related risks and opportunities, including information about:		
	(i) Whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee		
	(ii) Whether management uses controls and procedures to support the oversight of sustainability-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions		
	Strategy		
	Sustainability-related risks and opportunities		
IFRS S1-30 (a)	Sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects	TCFD Report | Strategy Integrated Annual Report | Natural Capital – Climate Action: Adapt, Thrive and Survive	8-31 142-144
IFRS S1-30 (b)	The time horizons—short, medium or long term—over which the effects of each of those sustainability-related risks and opportunities could reasonably be expected to occur		
IFRS S1-30 (c)	The definitions of 'short-term', 'medium-term' and 'long-term' and how these definitions are linked to the planning horizons used by the entity for strategic decision-making		

Reference Number	Disclosure Description	Location	Page Number
	Business model and value chain		
IFRS S1-32 (a)	A description of the current and anticipated effects of sustainability-related risks and opportunities on the entity's business model and value chain	TCFD Report | Strategy Integrated Annual Report | Natural Capital | Anticipating Uncertainty, Securing Success	8-31 139-177 40-49
IFRS S1-33 (b)	A description of where in the entity's business model and value chain sustainability-related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets)		
	Strategy and decision-making		
IFRS S1-31 (a)	How the entity has responded to, and plans to respond to, sustainability-related risks and opportunities in its strategy and decision-making	TCFD Report | Strategy Integrated Annual Report | Natural Capital	8-31 139-177
IFRS S1-31 (b)	The progress against plans the entity has disclosed in previous reporting periods, including quantitative and qualitative information		
IFRS S1-31 (c)	Trade-offs between sustainability-related risks and opportunities that the entity considered (for example, in making a decision on the location of new operations, an entity might have considered the environmental impacts of those operations and the employment opportunities they would create in a community)		
	Financial position, financial performance and cash flows		
IFRS S1-34 (a)	The effects of sustainability-related risks and opportunities on the entity's financial position, financial performance and cash flows for the reporting period (current financial effects)	TCFD Report | Strategy Integrated Annual Report | Natural Capital – Climate Action: Adapt, Thrive and Survive	8-31 139-177
IFRS S1-34 (b)	The anticipated effects of sustainability-related risks and opportunities on the entity's financial position, financial performance and cash flows over the short-, medium- and long-term, taking into consideration how sustainability-related risks and opportunities are included in the entity's financial planning (anticipated financial effects)		
IFRS S1-35 (a)	How sustainability-related risks and opportunities have affected its financial position, financial performance and cash flows for the reporting period		
IFRS S1-35 (b)	The sustainability-related risks and opportunities for which there is a significant risk of a material adjustment within the next annual reporting period to the carrying amounts of assets and liabilities reported in the related financial statements		
IFRS S1-35 (c)	Quantitative and qualitative information about how the entity expects its financial position to change over the short-, medium- and long-term, given its strategy to manage sustainability-related risks and opportunities, taking into consideration		
	(i) Its investment and disposal plans (for example, plans for capital expenditure, major acquisitions and divestments, joint ventures, business transformation, innovation, new business areas, and asset retirements), including plans the entity is not contractually committed to		
	(ii) Its planned sources of funding to implement its strategy		
IFRS S1-35 (d)	Quantitative and qualitative information about how the entity expects its financial performance and cash flows to change over the short-, medium-, and long-term, given its strategy to manage sustainability-related risks and opportunities		

IFRS content index-S1

Reference Number	Disclosure Description	Location	Page Number
	Resilience		
IFRS S1-41	A qualitative and, if applicable, quantitative assessment of the resilience of its strategy and business model in relation to its sustainability-related risks, including information about how the assessment was carried out and its time horizon	TCFD Report | Strategy	8-31
	Risk management		
IFRS S1-44 (a)	The processes and related policies the entity uses to identify, assess, prioritise and monitor sustainability-related risks, including information about:	**TCFD Report | Risk Management** Integrated Annual Report | Anticipating Uncertainty, Securing Success |Climate Action: Adapt, Thrive and Survive	**32-39** 40-49 142-144
	(i) The inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes)		
	(ii) Whether and how the entity uses scenario analysis to inform its identification of sustainability-related risks		
	(iii) How the entity assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the entity considers qualitative factors, quantitative thresholds or other criteria)		
	(iv) Whether and how the entity prioritises sustainability-related risks relative to other types of risk		
	(v) How the entity monitors sustainability-related risks		
	(vi) Whether and how the entity has changed the processes it uses compared with the previous reporting period		
IFRS S1-44 (b)	The processes the entity uses to identify, assess, prioritise and monitor sustainability-related opportunities		
	The extent to which, and how, the processes for identifying, assessing, prioritising and monitoring sustainability-related risks and opportunities are integrated into and inform the entity's overall risk management process		
	Metrics and targets		
IFRS S1-46 (a)	Metrics required by an applicable IFRS Sustainability Disclosure Standard for each sustainability-related risk and opportunity that could reasonably be expected to affect the entity's prospects	**TCFD Report | Metrics and Targets** Integrated Annual Report | Natural Capital	**40-43** 139-177
IFRS S1-46 (b)	Metrics the entity uses to measure and monitor that sustainability-related risk or opportunity and its performance in relation to that sustainability-related risk or opportunity, including progress towards any targets the entity has set, and any targets it is required to meet by law or regulation		
IFRS S1-51 (a)	The metric used to set the target and to monitor progress towards reaching the target		
IFRS S1-51 (b)	The specific quantitative or qualitative target the entity has set or is required to meet		
IFRS S1-51 (c)	The period over which the target applies		
IFRS S1-51 (d)	The base period from which progress is measured		
IFRS S1-51 (e)	Any milestones and interim targets		
IFRS S1-51 (f)	Performance against each target and an analysis of trends or changes in the entity's performance		
IFRS S1-51 (g)	Any revisions to the target and an explanation for those revisions		

IFRS content index-S2

Reference Number	Disclosure/Standard	Location	Page Number
	Governance		
IFRS S2-6 (a)	The governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate-related risks and opportunities, including the information about:	**TCFD report | Governance** Integrated Annual Report | Natural Capital – Environmental Management	**4-7** 141
	(i) How responsibilities for climate-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s)		
	(ii) How the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to climate-related risks and opportunities		
	(iii) How and how often the body(s) or individual(s) is informed about climate-related risks and opportunities		
	(iv) How the body(s) or individual(s) takes into account climate-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities		
	(v) How the body(s) or individual(s) oversees the setting of targets related to climate-related risks and opportunities, and monitors progress towards those targets, including whether and how related performance metrics are included in remuneration policies		
IFRS S2-6 (b)	Management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities, including information about:		
	(i) Whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee		
	(ii) Whether management uses controls and procedures to support the oversight of climate-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions		
	Strategy		
IFRS S2-9 (a)	The climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects	**TCFD Report | Risk Management, Strategy** Integrated Annual Report | Anticipating Uncertainty, Securing Success |Climate Action: Adapt, Thrive and Survive	**8-31** 40-49 142-144 32-39
IFRS S2-9 (b)	The current and anticipated effects of those climate-related risks and opportunities on the entity's business model and value chain		
IFRS S2-9 (c)	The effects of those climate-related risks and opportunities on the entity's strategy and decision-making, including information about its climate-related transition plan		
IFRS S2-9 (d)	The effects of those climate-related risks and opportunities on the entity's financial position, financial performance and cash flows for the reporting period, and their anticipated effects on the entity's financial position, financial performance and cash flows over the short-, medium-, and long-term, taking into consideration how those climate-related risks and opportunities have been factored into the entity's financial planning		
IFRS S2-9 (e)	The climate resilience of the entity's strategy and its business model to climate-related changes, developments and uncertainties, taking into consideration the entity's identified climate-related risks and opportunities		

IFRS content index-S2

Reference Number	Disclosure/Standard	Location	Page Number
	Climate-related risks and opportunities		
IFRS S2-10 (a)	Climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects	**TCFD Report | Risk Management** Integrated Annual Report | Anticipating Uncertainty, Securing Success |Climate Action: Adapt, Thrive and Survive	**32-39** 40-49 142-144
IFRS S2-10 (b)	For each climate-related risk the entity has identified, whether the entity considers the risk to be a climate-related physical risk or climate-related transition risk		
IFRS S2-10 (c)	For each climate-related risk and opportunity the entity has identified, over which time horizons—short-, medium-, and long-term—the effects of each climate-related risk and opportunity could reasonably be expected to occur		
IFRS S2-10 (d)	How the entity defines 'short-term', 'medium-term' and 'long-term' and how these definitions are linked to the planning horizons used by the entity for strategic decision-making		
	Business model and value chain		
IFRS S2-13(a)	A description of the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain	**TCFD Report | Risk Management** Integrated Annual Report | Anticipating Uncertainty, Securing Success |Climate Action: Adapt, Thrive and Survive	**32-39** 40-49 142-144
IFRS S2-13(b)	A description of where in the entity's business model and value chain climate-related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets		
	Strategy and decision-making		
IFRS S2-14(a)	Information about how the entity has responded to, and plans to respond to, climate-related risks and opportunities in its strategy and decision-making, including how the entity plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation. Specifically, the entity shall disclose information about:	**TCFD Report | Risk Management, Strategy** Integrated Annual Report | Anticipating Uncertainty, Securing Success |Climate Action: Adapt, Thrive and Survive	**8-31** 40-49 142-144 32-39
	(i) Current and anticipated changes to the entity's business model, including its resource allocation, to address climate related risks and opportunities (for example, these changes could include plans to manage or decommission carbon-, energy – or water-intensive operations; resource allocations resulting from demand or supply-chain changes; resource allocations arising from business development through capital expenditure or additional expenditure on research and development; and acquisitions or divestments)		
	(ii) Current and anticipated direct mitigation and adaptation efforts (for example, through changes in production processes or equipment, relocation of facilities, workforce adjustments, and changes in product specifications)		
	(iii) Current and anticipated indirect mitigation and adaptation efforts (for example, through working with customers and supply chains)		
	(iv) Any climate-related transition plan the entity has, including information about key assumptions used in developing its transition plan, and dependencies on which the entity's transition plan relies		
	(v) How the entity plans to achieve any climate-related targets, including any greenhouse gas emissions targets		
IFRS S2-14(b)	How the entity is resourcing, and plans to resource, the activities disclosed in accordance with 14(a)		
IFRS S2-14(c)	How the entity is resourcing, and plans to resource, the activities disclosed in accordance with 14(a)		

Reference Number	Disclosure/Standard	Location	Page Number
	Financial position, financial performance and cash flows		
IFRS S2-15(a)	The effects of climate-related risks and opportunities on the entity's financial position, financial performance and cash flows for the reporting period (current financial effects)	**TCFD Report | Risk Management** Integrated Annual Report | Anticipating Uncertainty, Securing Success |Climate Action: Adapt, Thrive and Survive	**32-39** 40-49 142-144
IFRS S2-15(b)	The anticipated effects of climate-related risks and opportunities on the entity's financial position, financial performance and cash flows over the short-, medium-, and long-term,, taking into consideration how climate-related risks and opportunities are included in the entity's financial planning (anticipated financial effects)		
IFRS S2-16(a)	How climate-related risks and opportunities have affected its financial position, financial performance and cash flows for the reporting period		
IFRS S2-16(b)	The climate-related risks and opportunities identified in paragraph 16(a) for which there is a significant risk of a material adjustment within the next annual reporting period to the carrying amounts of assets and liabilities reported in the related financial statements		
IFRS S2-16(c)	How the entity expects its financial position to change over the short-, medium-, and long-term, given its strategy to manage climate-related risks and opportunities, taking into consideration: climate-related risks and opportunities, taking into consideration:		
	(i) Its investment and disposal plans (for example, plans for capital expenditure, major acquisitions and divestments, joint ventures, business transformation, innovation, new business areas, and asset retirements), including plans the entity is not contractually committed to		
	(ii) Its planned sources of funding to implement its strategy		
IFRS S2-16 (d)	How the entity expects its financial performance and cash flows to change over the short-, medium, and long-term, given its strategy to manage climate-related risks and opportunities (for example, increased revenue from products and services aligned with a lower-carbon economy; costs arising from physical damage to assets from climate events; and expenses associated with climate adaptation or mitigation)		
	Climate resilience		
IFRS S2-22 (a)	The entity's assessment of its climate resilience as at the reporting date, including the information about:	**TCFD Report | Strategy**	**8-31**
	(i) The implications, if any, of the entity's assessment for its strategy and business model, including how the entity would need to respond to the effects identified in the climate-related scenario analysis		
	(ii) The significant areas of uncertainty considered in the entity's assessment of its climate resilience		
	(iii) The entity's capacity to adjust or adapt its strategy and business model to climate change over the short-, medium- and long-term, including;		
	(1) The availability of, and flexibility in, the entity's existing financial resources to respond to the effects identified in the climate-related scenario analysis, including to address climate-related risks and to take advantage of climate-related opportunities		
	(2) The entity's ability to redeploy, repurpose, upgrade or decommission existing assets		
	(3) The effect of the entity's current and planned investments in climate-related mitigation, adaptation and opportunities for climate resilience		

IFRS content index-S2

Reference Number	Disclosure/Standard	Location	Page Number
IFRS S2-22(b)	How and when the climate-related scenario analysis was carried out, including the information about: (i) The inputs the entity used, including: (1) Which climate-related scenarios the entity used for the analysis and the sources of those scenarios (2) Whether the analysis included a diverse range of climate-related scenarios (3) Whether the climate-related scenarios used for the analysis are associated with climate-related transition risks or climate-related physical risks (4) Whether the entity used, among its scenarios, a climate-related scenario aligned with the latest international agreement on climate change (5) Why the entity decided that its chosen climate-related scenarios are relevant to assessing its resilience to climate-related changes, developments or uncertainties (6) The time horizons the entity used in the analysis (7) What scope of operations the entity used in the analysis (for example, the operating locations and business units used in the analysis) (ii) The key assumptions the entity made in the analysis, including assumptions about: (1) Climate-related policies in the jurisdictions in which the entity operates (2) Macro-economic trends (3) National – or regional-level variables (for example, local weather patterns, demographics, land use, infrastructure and availability of natural resources) (4) Energy usage and mix (5) Developments in technology (iii) The reporting period in which the climate-related scenario analysis was carried out	TCFD Report | Strategy	8-13
	Risk management		
IFRS S2-25(a)	The processes and related policies the entity uses to identify, assess, prioritise and monitor climate-related risks, including information about: (i) The inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes) (ii) Whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related risks; (iii) How the entity assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the entity considers qualitative factors, quantitative thresholds or other criteria); (iv) whether and how the entity prioritises climate-related risks relative to other types of risk (v) How the entity monitors climate-related risks (vi) Whether and how the entity has changed the processes it uses compared with the previous reporting period	TCFD Report | Risk Management Integrated Annual Report | Anticipating Uncertainty, Securing Success |Climate Action: Adapt, Thrive and Survive	32-39 40-49 142-144

Reference Number	Disclosure/Standard	Location	Page Number
IFRS S2-25(b)	The processes the entity uses to identify, assess, prioritise and monitor climate-related opportunities, including information about whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related opportunities		
IFRS S2-25(c)	The extent to which, and how, the processes for identifying, assessing, prioritising and monitoring climate-related risks and opportunities are integrated into and inform the entity's overall risk management process		
	Metrics and targets		
	Climate-related metrics		
IFRS S2-29(a)	Information relevant to the cross-industry metric categories of greenhouse gases, including: (i) Absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tonnes of CO_2 equivalent, classified as: (1) Scope 1 greenhouse gas emissions (2) Scope 2 greenhouse gas emissions (3) Scope 3 greenhouse gas emissions (ii) Measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) unless required by a jurisdictional authority or an exchange on which the entity is listed to use a different method for measuring its greenhouse gas emissions (iii) The approach used to measure greenhouse gas emissions including: (1) The measurement approach, inputs and assumptions the entity uses to measure its greenhouse gas emissions (2) The reason why the entity has chosen the measurement approach, inputs and assumptions it uses to measure its greenhouse gas emissions (3) Any changes the entity made to the measurement approach, inputs and assumptions during the reporting period and the reasons for those changes (iv) For Scope 1 and Scope 2 greenhouse gas emissions disclosed in accordance with paragraph 29(a)(i)(1)–(2), disaggregate emissions between: (1) The consolidated accounting group (2) Other investees excluded from paragraph 29(a)(iv)(1) (for example, for an entity applying IFRS Accounting Standards, these investees would include associates, joint ventures and unconsolidated subsidiaries) (v) Location-based Scope 2 greenhouse gas emissions, and the information about any contractual instruments that is necessary to inform users' understanding of the entity's Scope 2 greenhouse gas emissions (vi) For Scope 3 greenhouse gas emissions disclosed in accordance with paragraph 29(a)(i)(3), and with reference to paragraphs B32–B57: (1) The categories included within the entity's measure of Scope 3 greenhouse gas emissions, in accordance with the Scope 3 categories described in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)	Integrated Annual Report | Natural Capital – GHG emissions	149-152

IFRS content index-S2

Reference Number	Disclosure/Standard	Location	Page Number
	(2) Additional information about the entity's Category 15 greenhouse gas emissions or those associated with its investments (financed emissions), if the entity's activities include asset management, commercial banking or insurance		
IFRS S2-29(b)	Climate-related transition risks—the amount and percentage of assets or business activities vulnerable to climate-related transition risks	TCFD Report | Strategy	18
IFRS S2-29 (c)	Climate-related physical risks—the amount and percentage of assets or business activities vulnerable to climate-related physical risks		
IFRS S2-29(d)	Climate-related opportunities—the amount and percentage of assets or business activities aligned with climate-related opportunities		
IFRS S2-29(e)	Capital deployment—the amount of capital expenditure, financing or investment deployed towards climate-related risks and opportunities		
IFRS S2-29(f)	Internal carbon prices, including the information about:	TCFD Report | Strategy Integrated Annual Report | Natural Capital – Internal Carbon Pricing	18 144
	(i) An explanation of whether and how the entity is applying a carbon price in decision-making (for example, investment decisions, transfer pricing and scenario analysis)		
	(ii) The price for each metric tonne of greenhouse gas emissions the entity uses to assess the costs of its greenhouse gas emissions		
IFRS S2-29(g)	Remuneration, including the information about:	Integrated Annual Report | Natural Capital – Environmental Management	141
	(i) A description of whether and how climate-related considerations are factored into executive remuneration (see also paragraph 6(a)(v))		
	(ii) The percentage of executive management remuneration recognised in the current period that is linked to climate related considerations		
	Climate-related targets		
IFRS S2-33(a)	The metric used to set the target	TCFD Report | Metrics and Targets Integrated Annual Report |Climate Action: Adapt, Thrive and Survive	40 142-152
IFRS S2-33(b)	The objective of the target (for example, mitigation, adaptation or conformance with science-based initiatives)		
IFRS S2-33(c)	The part of the entity to which the target applies (for example, whether the target applies to the entity in its entirety or only a part of the entity, such as a specific business unit or specific geographical region)		
IFRS S2-33(d)	The period over which the target applies		
IFRS S2-33(e)	The base period from which progress is measured		
IFRS S2-33(f)	Any milestones and interim targets		
IFRS S2-33(g)	If the target is quantitative, whether it is an absolute target or an intensity target		
IFRS S2-33(h)	How the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target		
IFRS S2-34(a)	Whether the target and the methodology for setting the target has been validated by a third-party		
IFRS S2-34(b)	The entity's processes for reviewing the target		
IFRS S2-34(c)	The metrics used to monitor progress towards reaching the target		
IFRS S2-34(d)	Any revisions to the target and an explanation for those revisions		

Reference Number	Disclosure/Standard	Location	Page Number
IFRS S2-35	An entity shall disclose information about its performance against each climate-related target and an analysis of trends or changes in the entity's performance		
IFRS S2-36(a)	Which greenhouse gases are covered by the target		
IFRS S2-36(b)	Whether Scope 1, Scope 2 or Scope 3 greenhouse gas emissions are covered by the target		
IFRS S2-36(c)	Whether the target is a gross greenhouse gas emissions target or net greenhouse gas emissions target. If the entity discloses a net greenhouse gas emissions target, the entity is also required to separately disclose its associated gross greenhouse gas emissions target		
IFRS S2-36(d)	Whether the target was derived using a sectoral decarbonisation approach		
IFRS S2-36(e)	The entity's planned use of carbon credits to offset greenhouse gas emissions to achieve any net greenhouse gas emissions target, including the information about:	Integrated Annual Report |Natural Capital – Initiatives to reduce energy consumptions and emissions	152
	(i) The extent to which, and how, achieving any net greenhouse gas emissions target relies on the use of carbon credits		
	(ii) Which third-party scheme(s) will verify or certify the carbon credits		
	(iii) The type of carbon credit, including whether the underlying offset will be nature-based or based on technological carbon removals, and whether the underlying offset is achieved through carbon reduction or removal		
	(iv) Any other factors necessary for users of general purpose financial reports to understand the credibility and integrity of the carbon credits the entity plans to use (for example, assumptions regarding the permanence of the carbon offset)		

ASI Performance Standard version 3.0

Section	Principle	Location	Page No.
Governance	Business Integrity	Corporate Governance	334
	Policy and Management	Human Capital | Natural Capital | Social & Relationship Capital	9, 85, 139, 179
	Transparency	About the Report |Financial Capital| Human Capital | Natural Capital	59, 85, 139
	Material Stewardship	Natural Capital | Raw Material Management	163
Environment	Greenhouse Gas Emissions	Natural Capital | GHG Emissions	149-152
	Emissions, Effluents and Waste	Natural Capital | Air Emissions, Water Management, Waste Management	153-154, 162, 164-170
	Water Stewardship	Natural Capital | Water Management	155-162
	Biodiversity and Ecosystem Service	Natural Capital | Biodiversity Management, Sustainable Mining	172-177
Social	Human Rights	Human Capital | Human Rights	114-119
	Labour Rights	Human Capital | Human Rights	114-119
	Occupational Health and Safety	Human Capital | Occupation Health and Safety	119-123

Glossary/Abbreviations

AA1000AS	Account Ability's AA1000 Assurance Standard
ABG	Aditya Birla Group
ABSTC	Aditya Birla Science and Technology Company
ACR	Air Conditioning and Refrigeration
AI/ML	Artificial Intelligence/Machine Learning
AIP	Annual Incentive Pay
Al	Aluminium
ALERT	Accountability, Learning, Empowerment, Responsiveness and Teamwork
AR/VR	Augmented Reality/Virtual Reality
ARAI	Automotive Research Association of India
ASC	Apex Sustainability Committee
ASI	Aluminium Stewardship Initiative
AWOO	A World of Opportunities
B&C	Building and Construction
B2B	Business-to-Business
B2C	Business-to-Consumer
BCM	Business Continuity Management Plan
BCP	Business Continuity Plan
BQiP	Build Quality in Process
BRSR	Business Responsibility and Sustainability Reporting
CAGR	Compound Annual Growth Rate
Capex	Capital Expenditure
CBAM	Carbon Border Adjustment Mechanism
CBO	Community-Based Organizations
CCC	Culture Change Champions
CDIO	Chief Digital Information Officer
CHRO	Chief Human Resource Officer
CISO	Chief Information Security Officer
CMMS	Computerised Maintenance Management System
COSO	Committee of Sponsoring Organizations of the Treadway Commission
CREST	Customer centricity, RoCE, pioneer ESG, Sustaining peak performance, and home to exceptional Talent
CRM	Customer Relationship Management
CRO	Chief Risk Officer
CSA	Corporate Sustainability Assessment
CSO	Chief Sustainability Officer
CSOD	Cornerstone on Demand
CSR	Corporate Social Responsibility
Cu	Copper
CV	Commercial Vehicles
DAC	Development and Assessment Centre
DCW	Deep Cone Washers
DEI	Diversity, Equality and Inclusion
DISHA	Digital Shiksha
DJSI	Dow Jones Sustainability Indices
DMP	Data Management Platform
EAM	Enterprise Asset Management
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortisation
EIA	Environment Impact Assessment
EMAS	Eco-Management and Audit Scheme
ERG	Employee Resource Groups
ERM	Enterprise Risk Management
ESG	Environment Social Governance
EV	Electric Vehicles
EVP	Employee Value Proposition
FGD	Flue Gas Desulphurisation
FICCI	Federation of Indian Chambers of Commerce & Industry
FRP	Flat Rolled Products
FTE	Full-Time Equivalents
GHG	Greenhouse Gases
GIDC	Gujarat Industrial Development Corporation
GJ	Giga Joules

Glossary/Abbreviations

GoI	Government of India
GPTW	Great Place to Work
GRI	Global Reporting Initiative
HAZOP	Hazard and Operability studies
HIC	Hindalco Innovation Centre
HIRA	Hazard Identification and Risk Assessment
HPCO	High-Performing Contemporary Organization
HRDD	Human Rights Due Diligence
HTU	Hindalco Technical University
IATF	International Automotive Task Force
IBAT	Integrated Biodiversity Assessment Tool
ICF	International Coaching Federation
ICP	Internal Carbon Pricing
IFRS	International Financial Reporting Standards
IGBC	Indian Green Building Council
IGT	Inner Groove Tubes
IIT	Indian Institute of Technology
ILO	International Labour Organization
IMF	International Monetary Fund
INDAL	Indian Aluminium Company
IPCC	Intergovernmental Panel on Climate Change
IR	Integrated Report
ISAE	International Standard on Assurance Statement
ISO	International Organization for Standardization
ITC	International Trade Commission
IUCN	International Union for Conservation of Nature
IWT	India Water Tool
JSA	Job Safety Analysis
kg	Kilogram
KMGBF	Kunming Montreal Global Biodiversity Framework

KPIs	Key Performance Indicators
KRIs	Key Risk Indicators
KT	Kiloton
KTPA	Kilo-Tonnes Per Annum
LCA	Life Cycle Assessment
LIB	Lithium-ion Batteries
LIT	Logistics Insight Tower
LME	London Metal Exchange
LSIP	Large-Scale Interactive Process
LTIFR	Lost-Time Injury Frequency Rate
LTIR	Lost-Time Injury Rate
M&R	Maintenance and Reliability
MDP	My Development Plan
MoU	Memorandum of Understanding
MSEF 2.0	Maintenance Strategy and Execution Framework
MT	Metric Tonnes
MTPA	Million Tonnes per Annum
MW	Mega Watt
NABL	National Accreditation Board for Testing and Calibration Laboratories
NFDL	Non-fatal Days lost
NGO	Non-Governmental Organization
NNL	No Net Loss
NOx	Nitrogen Oxides
NPS	Net Promoter Score
OCEMS	Online Continuous Emission Monitoring System
OECD	Organization for Economic Cooperation and Development
OEM	Original Equipment Manufacturer
OFAC	Office of Foreign Assets Control
OHC	Occupational Health Center
OHS	Occupational Health and Safety

PAC	Polly Aluminium Chloride
PAT	Profit After Tax
PAT	Perform, Achieve and Trade
PFCs	Perfluorocarbon emissions
PLC	Programmable Logic Controller
PM	Particulate Matter
PMR	Precious Metal Recovery
POSH	Prevention of Sexual Harassment
PPA	Power Purchase Agreement
QiEA	Qualitative Exposure Assessments
QnEA	Quantitative Exposure Assessments
R&D	Research and Development
R&R	Rehabilitation and Resettlement
RCP	Representation Concentration Pathways
RDSO	Research Design and Standards Organization
RET	Rare, Endangered and Threatened
ROCE	Return on Capital Employed
RoHS	Restriction of Hazardous Substance
RTC	Round-The-Clock
SAM	Smart Asset Management
SAQ	Standard Assessment Questionnaire
SASB	Sustainability Accounting Standards Board
SEBI	Securities and Exchange Board of India
SEZ	Special Economic Zone
SIF	Serious Injuries Fatality
SMC	Sustainable Mining Charter
SMEs	Subject Matter Experts

SOP	Standard Operating Procedures
STEM	Science, Technology, Engineering and Mathematics
SOx	Sulphur Oxides
TAT	Turn Around Time
TNFD	Taskforce on Nature-related Financial Disclosures
TPA	Tonnes per Annum
TRIFR	Total Recordable Injury Frequency Rate
UBCs	Used Beverage Cans
UN SDGs	United Nations Sustainable Development Goals
UNGC	United Nations Global Compact
VAP	Value Added Products
VUCA	Volatile, Uncertain, Complex, Ambiguous
WAH	Women At Hindalco
WaMTF	Waste Management Task Force
WBCSD	World Business Council for Sustainable Development
WCM	World Class Manufacturing
WEF	World Economic Forum
WTF	Water Task Forces
ZLD	Zero Liquid Discharge

Report of the Board of Directors

(Including Management Discussion and Analysis)

The Board of Directors of Hindalco Industries Limited ("Your Company" or "the Company") is pleased to present 65th (Sixty-Fifth) Annual Report and Fourth Integrated Annual Report of your Company along with Audited Financial Statements for the financial year ended 31 March 2024 ("year under review / FY 2023-24").

Management Discussion and Analysis

Overview:

Hindalco Industries Limited, the metals flagship of the Aditya Birla Group, is the world's largest aluminium rolling and recycling company, a major player in Copper and Specialty Alumina, and one of Asia's largest producers of primary aluminium. Our future-facing initiatives led us to be among the top 1% in the aluminium industry in the S&P Global Sustainability Yearbook 2024 for the third year in a row. Industry leaders are the top-performing companies in the Index.

In India, Hindalco's aluminium manufacturing units cover the complete value chain, from bauxite mining, alumina refining, coal mining, captive power generation and aluminium smelting, to downstream value-addition of aluminium rolling, extruding, and foil making. Hindalco's copper division in India operates a world-class custom copper smelter with capability to manufacture copper rods.

Guided by its Purpose of building a Greener, Stronger, Smarter world, Hindalco provides innovative solutions that nurture a sustainable planet. Today, Hindalco's global footprint spans 52 manufacturing plants across 10 countries.

Hindalco's wholly owned subsidiary Novelis is the leading producer of flat-rolled aluminium products and the world's largest recycler of aluminium. Novelis delivers innovative solutions to customers in the beverage cans, automobile, aerospace, and high-end speciality markets, including foil packaging, certain transportation products, architectural, industrial, and consumer durables. Novelis operates an integrated network of technically advanced rolling and recycling facilities across North America, South America, Europe, and Asia. Novelis, which has recycling operations across the world, recycles over 82 billion used beverage cans a year.

In FY 2023-24, Hindalco delivered an outstanding financial and operational performance backed by the exceptional performance of its India and Novelis' operations. This strong performance, despite macro-economic headwinds, was driven by higher volumes, better margins, strategic product mix, stability in operations and continued outstanding performance of its copper business in India. On a consolidated basis, Hindalco continued to maintain its strong balance sheet in FY 2023-24, resulting in a 1.21x Net Debt-to-EBITDA at the end of the year against 1.39x in the previous year.

FY 2023-24: Key Highlights

Achieved

- Aluminium metal production at **1,331 KT**
- Aluminium third party metal sales (in all forms) at **1,372 KT**
- Alumina production at **3,665* KT**
- Aluminium Downstream production at **367 KT** and Sales at **370 KT**
- Copper Cathode Production at **368 KT** and Metal Sales at **506 KT**
- Record Copper Rods production at **488# KT** and Sales at **389 KT**
- Overall shipments in Novelis of **3,673 KT**
- Adjusted EBITDA at **$1.87 billion** in Novelis
- Yearly adjusted EBITDA/tonne of **$510** in Novelis
- Net Income of **$ 600 million** in Novelis
- Consolidated Revenue of **₹2,15,962 crore**
- Consolidated EBITDA of **₹25,728 crore**
- Consolidated PAT of **₹10,155 crore**

** Includes production of Utkal Alumina, the wholly-owned subsidiary.*
 # actual production including fixed term contract volumes

Key Initiatives during the year 2023-24

Expansion Plans

Hindalco's business model, with its strong focus on expanding the portfolio of downstream products in India, has increased current downstream capacity to 430 KT at the end of FY24. Further, downstream capacity is expected to reach around 600 KT by FY 2026. Today, Utkal Alumina has a capacity of 2.5 million MT after the completion of its recent debottlenecking expansion of 350 KT. Utkal Alumina remains among the most economical producers of alumina in the world.

With a focus on cost-optimisation specially in coal and alumina, Hindalco has enhanced operational efficiencies and lowered the overall cost of production. Factors such as Utkal Alumina's low-cost alumina, better coal mix, and improved operational efficiencies contributed to Hindalco being able to reduce the overall cost of production across its India operations.

In line with its long-term growth strategy of organic expansions, Hindalco announced investments of around $2 billion for its India operations, largely focusing on downstream expansions over the next 3 to 5 years. These investments will be spread across the Aluminium, Copper, and Specialty Alumina businesses and resource securitisation. To strengthen the supply chain and improve the quality of coal, the Company has acquired two captive coal mines in India. The Company's intent is also to build a larger value-added product portfolio over the next few years to dissociate its business from the volatility of global aluminium prices.

Novelis launched a multi-year strategy to transform and improve the profitability of its business through significant investments in new capacity and capabilities across all operating regions. It remains committed to this strategy with $4.9 billion worth of organic growth expansion projects expected to be completed in the next 3 years.

Industry Analysis

i. Aluminium – Industry Review & Outlook

In Calendar Year ('CY') 2023, the global economy grew by 3.2%. In the same year, the global production of aluminium increased 3% Y-o-Y to ~71 million MT, while global consumption was flattish at ~70 million MT due to inflation-led slowdown in demand. Hence, global markets were in a marginal surplus of 0.6 million MT in CY23. In a region-wise split in CY2023, production in China grew 4% Y-o-Y to 41.6 million MT, led by increases in Guangxi, Gansu, Sichuan, Yunnan, and Inner Mongolia. Aluminium consumption in China grew by 5% to ~43 million MT led by the sharp increase in demand for EVs and solar. However, the demand was subdued in the sectors of building and construction, and packaging. With consumption of ~43 million MT, and production of 41.6 million MT, China saw a deficit of ~1.4 million MT.

In the rest of the world, production of aluminium was flattish Y-o-Y at ~29 million MT in CY2023. A major drop in production in Europe was offset by the increased production in Indonesia, Brazil, and India. While transport grew on account of pent-up demand, all other sectors like consumer durables, packaging, and construction saw headwinds. Hence, overall consumption declined by 4% Y-o-Y to ~29 million MT, leading to a significant surplus of ~2 million MT in CY2023. (See Figure 1 and 2)

Vertical Machine Centre at Machine Shop (Extrusions) in Renukoot

Figure 1: Primary Production
(in million MT)

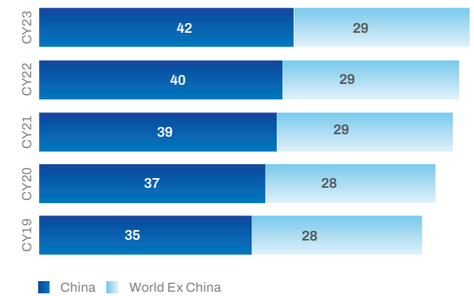


Figure 2: Primary Consumption
(in million MT)

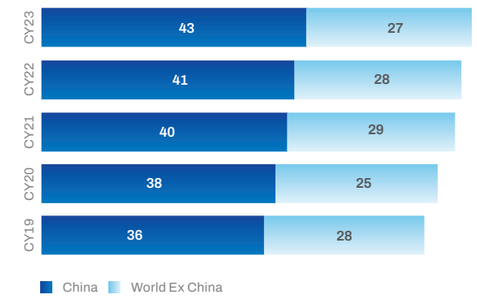
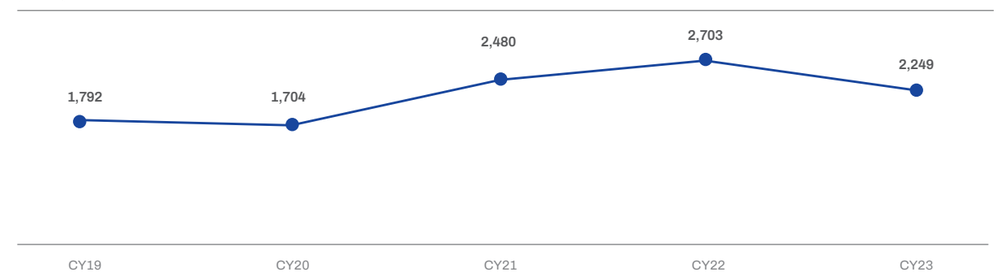


Table 1: Global Production and Consumption (in million MT)

Particulars	CY 19	CY 20	CY 21	CY 22	CY 23
Production	63.3	64.7	67.4	68.8	**70.7**
Consumption	64.6	62.8	69.0	69.2	**70.1**
Metal Balance Surplus/(Deficit)	(1.3)	1.9	(1.6)	(0.4)	**0.6**

With global markets being in surplus, inventory levels increased to 9.7 million MT. In CY2023, the global prices of aluminium averaged at $2249/tonne as against $2703/tonne in CY2022.The graph here shows the pricing trend over the past 5 years:

Figure 3: Global Aluminium Prices
($/MT)



The regional premiums also saw volatility during CY2023. The average spot Main Japanese Port (MJP), duty-paid European Rotterdam Ingot and US Midwest premium was $86/t, $274/t and $23 cents/lb respectively in CY2023, versus $99/t, $462/t and $30 cents/lb respectively in CY2022.

Domestic Consumption:

India Consumption: Domestic consumption saw significant improvement across all sectors. Domestic consumption is expected to grow by around 11% Y-o-Y in FY 2023-24 on account of market demand. However, import of aluminium continues to be a concern for domestic players. Overall imports, including scrap, touched ~2.7 million MT in FY 2023-24 from ~2.5 million MT in FY 2022-23.

The Table (table 2) shows the sector-wise change in domestic consumption of aluminium in FY 2023-24 vs previous year.

Sector	FY 2023-24/ FY 2022-23
Electrical	20 to 25%
Building and construction	5 to 10%
Automotive	5 to 10%
Industrial and Defence	10 to 15%
Print	(5%) to 5%
Packaging	(5%) to 5%
Consumer Durables	(5%) to 5%
Others	5 to 10%
Overall India Consumption	11%

Outlook:

In CY2024, global GDP growth rate is likely to be around 3.2%, as per the IMF projections (IMF WEO, July 2024). US growth is projected to pick up from 2.5% in 2023 to 2.6% in 2024, due to continuing strong momentum. Activity in the Euro area to pick up from 0.5% growth in 2023 to 0.9% in 2024, as effects of the energy price shock subside and inflation falls, leading to stronger household consumption. Chinese growth is expected to moderate from 5.2% in 2023 to 4.6% in 2024, due to a drag from property sector. India remains a bright spot, with the forecast for FY 2025 at 7%. Overall, advanced economies are likely to grow by 1.7%, while emerging economies are likely to grow by 4.3%.

Overall, in CY2024, global primary aluminium demand is likely to experience a 3% growth to around 72 million MT. Global production is also expected to be around 72 million MT. Hence, the resultant market is likely to remain balanced. Production in the world, excluding China, is expected to increase ~2% to around 29-30 million MT. Primary aluminium supply in China has grown ~3% to ~43 million MT in CY2023. Consequently, inventories are likely to remain stable at around 9.7 million MT by the end of CY2024.

World Excluding China Demand Drivers:

Sectors	Demand Drivers
Transport	Government provides purchase incentives to buyers of EVs. Overall production of cars and commercial vehicle to be flattish
Construction and Consumer durables	To recover with reduction in interest rates
Packaging	Stable demand in Can
Foil stock	

China Demand Drivers:

Sectors	Demand Drivers
Transport	Significant aluminium demand due to rising EV sales in domestic and exports. In YTD April CY24, NEV production increased by 30%. EV exports increased by 21%.
Construction	Continued monetary stimulus aimed to stabilise demand
Packaging	Stable demand from food and pharmaceutical sectors, however, demand for Can to see short-term headwinds.
Foil stock	
Electrical	Sharp growth in solar installations. In Q1 CY24, solar installations grew by 36% to 46 GW.
Consumer durables	Stable domestic demand led by exports.

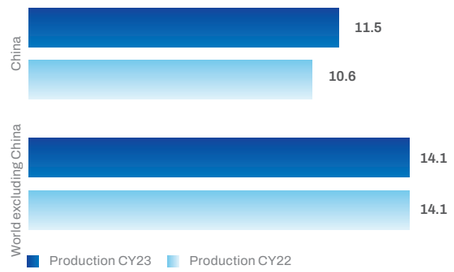
The Indian market is likely to see a steady growth across all sectors. Imports of aluminium products, including scrap, continue to remain a major concern for domestic aluminium producers. Over the past few years, the domestic rolled and foil products industries have seen an increase in imports at lower prices, especially from China and the FTA countries. The government has supported the aluminium industry by imposing Anti-Dumping Duty ('ADD') on imports of flat-rolled products from China. The foil industry has petitioned with the Government on imposing ADD on foil imports from China/Thailand to support the industry against unfair trade practices.

ii. Copper – Industry Review & Outlook

In CY23, overall global copper production grew ~3.6% to 25.6 million MT. Consumption also grew 2.8% Y-o-Y to 25.6 million MT, resulting in a balanced market.

In CY23 Chinese production increased 8.6% to 11.5 million MT, whereas consumption grew 7.7% to 14.6 million MT, resulting in a deficit of 3.1 million MT. Across the world, excluding China, production declined 0.3%, whereas consumption declined 3.0% Y-o-Y, resulting in a surplus of 3.1 million MT in CY23.

Refined Copper Production
(Mn T)



Refined Copper Consumption
(Mn T)

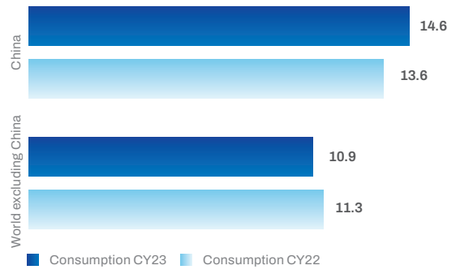


Table 3: Global Production and Consumption
(in million MT)

Particulars	CY22	CY23
Production	24.7	**25.6**
Consumption	24.9	**25.6**
Metal Balance Surplus/(Deficit)	(0.2)	**0**

On a yearly basis, domestic demand for refined copper increased 10% to 817 KT in FY 2023-24 from 746 KT in FY 2022-23. Of this, the share of imports was 30% at 244 KT in FY 2023-24 versus 24% at 181 KT in FY 2023-24.

For the calendar year 2024, the annual benchmark treatment charge/refining charge (Tc/Rc) was settled at 80/8 (20.5 c/lb). This settlement reflects a notable decrease of ~ 9% compared to the CY2023 benchmark Tc/Rc of 88/8.8 (22.6 c/lb). For CY2024, the market is expected to be in deficit of ~ 440 KT. Spot terms experienced a continuous decline due to a combination of disruptions in a large copper mine in Central America coupled with 4-5 new smelters being commissioned in Indonesia, India, and China during this year.

Outlook:

Global demand for refined copper is expected to increase ~2.5% in CY2024. China is expected to grow ~3.2% and the rest of world is expected to grow ~1.5%. Demand for refined copper in India is likely to be around 880 KT in FY 2024-25.

Tightness in the concentrate market is likely to continue for the next couple of years with resulting subdued Tc/Rc levels in the short to medium term. Maintenance shutdown planned by many Chinese smelters during Q1 FY25 may offer some short-term relief.

iii. Novelis – Global Flat Rolled Products ('FRP') – Industry Review & Outlook

Approximately a decade ago, Novelis launched a multi-year strategy to transform and improve the profitability of business through significant

Tension leveller at a Novelis plant

investment in new capacity and capabilities. Novelis leveraged new capacity, global footprint, scale and solid customer relationships to drive volumes and capture favourable supply and demand market dynamics across all end-use markets. With growth in volumes combined with improved pricing, significant increase in scrap inputs, operational efficiencies and high-capacity utilisation rates, Novelis significantly improved the profitability of beverage packaging and specialties products and maintained high margins for automotive and aerospace products to increase total company adjusted EBITDA per tonne from $308 in fiscal 2016 to $510 in fiscal 2024 and turn a net loss of $38 million into $600 million in net income.

However, continuing inflation and geopolitical instability in Europe in fiscal 2023, led to increased global operating costs, including for energy, freight, labour, coatings, and alloys. While many of these operating cost pressures have lessened in recent months, some costs, including for labour and repairs, and maintenance, remain elevated. Elevated interest rates have also increased interest expense on variable interest rate loans. The challenging inflationary and geopolitical environment is negatively impacting near-term demand in some specialty end-markets, such as building and construction, which is more sensitive to inflation and interest rates. Such elevated costs and reduced demand will continue until economic conditions stabilise. Despite Novelis' results being negatively impacted by higher costs, it was able to partially mitigate a portion of the higher inflationary cost impact through a combination of hedging, passing a portion of higher costs to customers, favourable pricing environments, and utilising recycled materials. Novelis also implemented cost control measures across global operations, including employment, professional services, and travel costs.

The global long-term demand for aluminium rolled products remains strong, driven by anticipated economic growth, material substitution, and sustainability considerations, including increased environmental awareness around PET plastics. However, reduced demand for Can sheet beginning in the second half of fiscal 2023 attributed to the beverage packaging industry reducing excess inventory as supply chains improved and markets adjusted to a more moderated level of beverage packaging demand following the COVID pandemic. Inventory levels across beverage packaging supply chain have now largely normalised.

Increasing customer preference for sustainable packaging options and package mix shift toward infinitely recyclable aluminium are driving higher demand for aluminium beverage packaging worldwide. To support growing demand for aluminium beverage packaging sheet in North America, Novelis broke ground on a 600 KT capacity greenfield rolling and recycling plant in Bay Minette, Alabama, in October 2022. Novelis' plan is to allocate more than half of this plant's capacity to the production of beverage packaging sheet. Novelis continues to evaluate opportunities for additional capacity expansion across regions, where local Can sheet supply is insufficient to meet long-term demand growth.

Long-term demand will continue to grow for aluminium automotive sheet, which drives Novelis' recently completed investments in automotive sheet finishing capacity in Guthrie, Kentucky, and Changzhou, China. This demand has been primarily driven by the benefits that result from using lightweight aluminium in vehicle structures and components, as automakers respond to stricter government regulations regarding emissions and fuel economy, while maintaining or improving vehicle safety and performance. There is increased demand for aluminium in electric vehicles, as the metal's lighter weight can result in extended battery range.

The long-term demand for building and construction and other specialty products is expected to grow due to increased customer preference for lightweight, sustainable materials. Demand for aluminium plate in Asia is to grow, driven by the development and expansion of industries serving aerospace, rail, and other technically demanding applications.

Demand for aerospace aluminium plate and sheet has strengthened as air-travel demand has recovered toward pre-COVID levels. In the longer-term, we believe significant aircraft industry order backlogs for key OEMs, including Airbus and Boeing, will translate into growth in the future and that our multi-year supply agreements have positioned us to benefit from future expected demand.

For a region-wise detailed business overview, please refer to the 10K filed by Novelis Inc. dated 6 May 2024 for the year ended 31 March 2024.

Hindalco – SWOT Analysis

India Aluminium

Strengths	Weakness	Opportunities	Threats
+ Fully integrated business model. + Major player in India across upstream and downstream. + Utkal – among the most economical and efficient Alumina producers; with capacity of ~2.5 million MT in FY 2023-24. + Increased focus on value-added products (VAP) will enable the Company to dissociate from LME. + Leadership in Flat Rolled Products.	+ Commodity product (upstream). + Upstream business linked to LME volatility.	+ Immense headroom for growth in India; per capita aluminium consumption in India is at 1/4th the global average. + Rising aluminium consumption in end -use segments like Building & Construction, Automotive, Packaging, and Consumer Durables + Substitution opportunity versus steel, uPVC, wood, among others. + Smaller market share in extrusions and foils. + Light-weighting initiatives in commercial vehicles, personal mobility, etc. leading to higher adoption of Aluminium in the country. + Ongoing PLI scheme of the Government of India for White Goods and proactive trade measures by the Government to help in import substitution.	+ LME, Forex, and raw material price volatility. + Competition from China in downstream. + Rising imports of scrap. + Increasing imports of VAP from the Free Trade Agreement ('FTA') countries. + Domestic availability/ shortage of resources (mainly coal)

Extruded profiles ready for heat treatment at Renukoot plant

Novelis

Strengths	Weakness	Opportunities	Threats
+ World's largest producer of flat-rolled aluminium products and global footprint, fitting global customer base. + World's largest recycler of aluminium translating into low-carbon footprint and relative independence from upstream primary metal suppliers. + Strong commitment to sustainability and recycling + Diverse product portfolio including a more recession-resistant beverage packaging end-market. + Significant investment in research and development, enabling innovative and specialised products. + Strong customer base with long term contracts.	+ Dependence on global supply chain and exposure to disruptions due to geopolitical issues, trade policies, or natural disasters. + Reliance on third-party suppliers for raw materials (metal and non-metal).	+ Increasing demand for lightweight, fuel-efficient vehicles offers significant growth opportunities for automotive aluminium products. + Advances in recycling technologies can improve efficiency and reduce costs, further enhancing Novelis' competitive advantage in sustainability. + Digitalising the value chain, including implementing a 'Plant of the Future' operating model would drive efficiency gains and overall operational excellence. + Building on existing sustainability leadership by expanding recycling capabilities	+ Stricter and constantly evolving environmental regulations and trade policies could increase compliance costs and require continuous monitoring. + Advances in alternative materials or technologies could reduce the demand for aluminium products. + Geopolitical instability, increasing tariffs, and protectionist measures could impact Novelis' customers resulting in an indirect impact on Novelis. + A global focus on sustainability and competition for scrap input materials could result in scrap becoming expensive.

Copper

Strengths	Weakness	Opportunities	Threats
+ A balanced portfolio of revenue streams to tide through a volatile market. + Secured concentrate supply via long-term contracts with miners. + Focus on VAP like copper rods and Inner Grooved Tubes (IGT), first-of-its-kind special alloys.	+ Dependence on imported copper concentrate	+ Immense headroom for growth due to lower consumption vs global average. + Strong demand for copper, particularly in EV and electrical segments.	+ Mine disruptions. + Duties & Free Trade Agreement and trade policies.

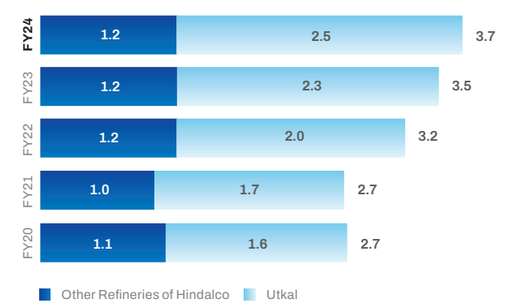
a. Hindalco Aluminium

Operational Overview:

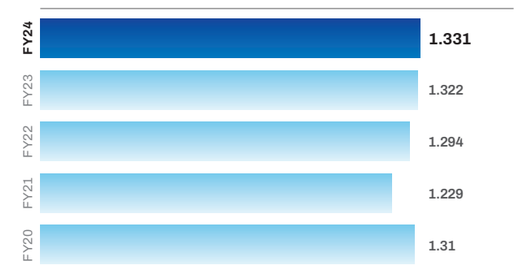
The Company delivered a robust performance in its aluminium business in FY 2023-24 supported by higher volumes, lower operating costs, and better operational efficiencies. The production of primary aluminium stood at 1.331 million MT in FY 2023-24 versus 1.322 million MT in the previous year. Overall alumina production stood at 3.665 million MT versus 3.525 million MT in FY 2022-23. Utkal Alumina recorded production of 2.450 million MT in FY 2023-24 and continues to be among the most economical and efficient alumina producers globally, providing strong support to most of Hindalco's India smelting facilities, leading to better cost optimisation and quality input material (alumina). The overall third-party sales of metal in all forms were at 1.372 million MT in FY 2023-24 against ₹1.350 million MT in FY 2022-23, up 2% Y-o-Y on account of higher downstream sales supported by market recovery this year. Production of aluminium VAP was higher by 5% Y-o-Y at 367 KT in FY 2023-24 vs 350 KT in the previous year. Third-party sales of aluminium VAP were higher by 5% at 370 KT in FY 2023-24 vs 354 KT in FY 2022-23.

Trends of total alumina production, and aluminium production and sales in the past 5 years is shown in the graph:

Total Alumina Production
(in million MT)



Metal Production
(million MT)



Third Party Metal Sales
(million MT)

Financial Overview:

Aluminium Upstream

Revenue for Hindalco's aluminium upstream segment was down 2%, at ₹32,382* crore in FY 2023-24 from ₹33,010* crore in FY 2022-23 on account of lower average aluminium prices. EBITDA was up 9% at ₹9,161 crore versus ₹8,402 crore a year earlier supported by lower input costs. The EBITDA margins were at 28% in FY 2023-24, which continues to be one of the best in the industry.

** The above numbers are without elimination of Inter-segment revenue.*

(₹ crore)

Description	FY 2023-24	FY 2022-23	% Change
Revenue	**32,382**	33,010	-2%
EBITDA	**9,161**	8,402	9%

Note: In the consolidated financial statements, within the aluminium segment, the significant entities are Hindalco and Utkal Alumina International Ltd. Utkal Alumina is a wholly owned subsidiary of Hindalco and supplies a substantial quantity of its production to Hindalco hence we have analysed the combined performance of Hindalco's aluminium business along with Utkal Alumina.

Aluminium Downstream

Revenue for Hindalco's aluminium downstream segment was ₹10,531* crore in FY 2023-24, down 4% Y-o-Y. EBITDA at ₹573 crore was down 9% versus ₹627 crore a year earlier due to lower realisations and unfavourable product mix.

** The above numbers are without elimination of Inter-segment revenue.*

(₹ crore)

Description	FY 2023-24	FY 2022-23	% Change
Revenue	**10,531**	11,009	-4%
EBITDA	**573**	627	-9%

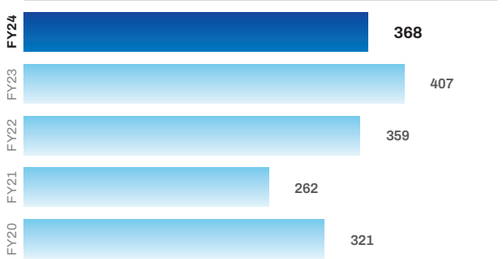
b. COPPER

Operational Overview:

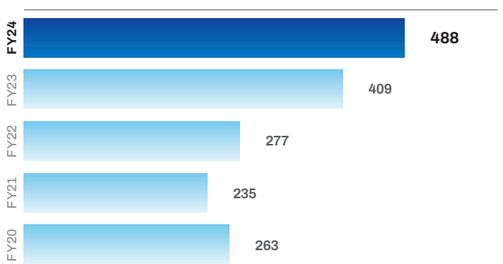
The Copper business delivered its best-ever operational and financial performance during FY 2023-24. Production of copper cathode was 368 KT in FY 2023-24, down 10% from the previous year impacted by planned maintenance shutdowns in the initial quarters. Production of continuous cast rods* was at a record 488 KT in FY 2023-24 versus 409 KT in FY 2022-23.

Total copper metal sales in all forms were at a record 506 KT in FY 2023-24, up 15% compared to 439 KT in the previous year which was in-line with the market demand. The sales of copper VAP (Copper Rods) were at a record 389 KT in FY 2023-24, up by 12% Y-o-Y, versus 347 KT in the previous year. The share of VAP (Copper Cathode Rods) to total metal sales was 77% in FY 2023-24, from 79% in the previous year.

Cathode Production
(KT)

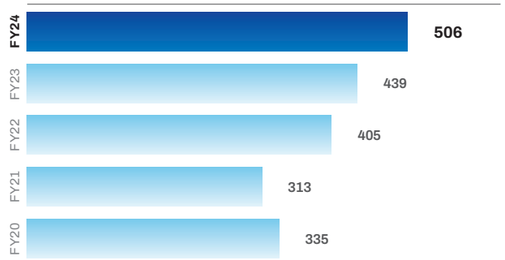


CC Rod Production*
(KT)

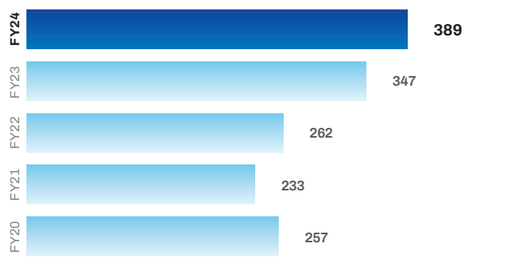


** Actual production including fixed term contract volumes*

Copper Metal Sales in All Forms
(KT)



Copper VAP – CC Rod Sales
(KT)



Financial Overview:

Copper segment revenue for FY 2023-24 was at ₹49,321* crore (vs. ₹41,702* crore in FY 2022-23), up 18% on account of higher volumes in FY 2023-24. Copper business recorded an all-time high EBITDA of ₹2,616 crore (vs. ₹2,253 crore in FY 2022-23), up 16% Y-o-Y, on account of stable operations, higher domestic sales, and better Tc/Rc in FY 2023-24.

** The above numbers are without elimination of Inter-segment revenue*

(₹ crore)

Description	FY 2023-24	FY 2022-23	% Change
Revenue	**49,321**	41,702	18%
EBITDA	**2,616**	2,253	16%

c. NOVELIS

Operational Overview:

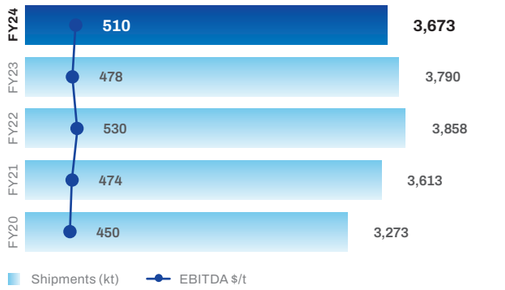
Driven by its purpose of shaping a sustainable world together. Our ambition is to be the leading provider of low-carbon, sustainable aluminium solutions and to achieve a fully circular economy by partnering with our suppliers and customers in beverage packaging, automotive, aerospace, and specialties (a diverse market including building and construction; signage; foil and packaging; commercial transportation; and commercial and consumer products, among others) markets throughout North America, Europe, Asia, and South America. We have recycling operations in many of our plants to recycle both post-consumer and post-industrial aluminium.

In FY 2023-24, total shipments were down 3% over the past year, at 3.673 million MT. The decrease in shipments is mainly due to lower beverage packaging shipments driven by customer inventory reductions in the first half of the fiscal year as well as softer demand for specialties products in a weaker macro-economic environment, partially offset by higher automotive shipments on strong demand. With customer inventory reductions complete, beverage packaging shipments increased sequentially each quarter of fiscal 2024 and demand continues to strengthen.

In FY 2023-24, the share of beverage can sheet shipments were 57%, automotive body sheet shipments were at 21%, and specialities and aerospace shipments were at 19% and 3%, respectively. Novelis leveraged its extensive recycling footprint and favourable market conditions to utilise 63% recycled content in its shipments in the reporting period.

Novelis operates in four key geographies: North America, Europe, Asia, and South America. In North America in FY 2023-24 total third party shipments were at 1,513 KT down from 1,515 KT in FY 2022-23, due to strong demand in beverage packaging and automotive end markets, offset by lower specialties end-market demand impacted by high inflation and interest rates. In Europe, the Novelis shipped 967 KT in FY 2023-24, a decline from 998 KT in FY 2022-23 due to weaker consumer demand in the beverage packaging and specialties markets, partially offset by stronger demand in the automotive end market. In Asia, Novelis shipped 623 KT of rolled products in FY 2023-24 versus 678 KT in the previous year, predominantly due to destocking of beverage packaging and weaker consumer demand. In South America, Novelis shipped 570 KT in FY 2023-24, down from 599 KT in the previous year, due to the impact of beverage packaging destocking across the supply chain in this region. In FY 2023-24, Novelis reported an overall EBITDA/tonne of $510 an increase from US$478/tonne in the last year.

Shipments (KT) and EBITDA $/tonne



Financial Overview:

Novelis' net sales in FY 2023-24 were at $16.2 billion, down 12% from $18.5 billion in fiscal 2023, primarily driven by lower average aluminium prices and a 4% decrease in total shipments compared to the prior year. The decrease in aluminium prices was driven primarily by a 12% decrease in average LME prices compared to the prior year.

Net income from continuing operations (excluding Special Items) of $688 million, a decrease of 12% compared to $781 million in fiscal 2023. The decrease in net income is primarily due to lower beverage packaging and specialty shipments, less favourable metal benefit from recycling due to lower aluminium prices, higher employment costs, favourable inventory timing effect from capitalising high operating costs last year, and higher income tax provision, partially offset by higher pricing, including some cost pass-through to customers, higher automotive shipments, some settling of inflationary cost pressures including energy costs, and favourable foreign exchange. Novelis reported Adjusted EBITDA of $1.873 billion vs $1.811 billion, an increase of 3% Y-o-Y, driven by the same factors described above, excluding the unfavourable impact from a higher income tax provision in the current year.

($ million)

Description	FY 2023-24	FY 2022-23	% Change
Net Sales	**16,210**	18,486	-12%
Adjusted EBITDA	**1,873**	1,811	3%
Net Income/ (loss) w/o Exceptional Item*	**688**	781	-12%

** Tax-effected special items may include restructuring & impairment, metal price lag, gain/loss on assets held for sale, loss on extinguishment of debt, loss/gain on sale of business.*

FINANCIAL ANALYSIS AND OUTLOOK

The Standalone and Consolidated Financial Statements for the financial year ended 31 March 2024, have been prepared in accordance with the Companies Act, 2013 ('the Act'), Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ('SEBI Listing Regulations') and Indian Accounting Standards ('IND AS'). The audited Standalone and Consolidated Financial Statement forms part of this Integrated Annual Report.

Statement of Profit & Loss

(₹ crore)

	Hindalco Standalone		Hindalco Consolidated	
Description	**FY 2023-24**	**FY 2022-23**	**FY 2023-24**	**FY 2022-23**
Revenue from Operations	**83,009**	76,878	**2,15,962**	2,23,202
Earnings Before Interest, Tax and Depreciation (EBITDA)				
Novelis*			**15,507**	14,543
Aluminium (including Utkal)				
Aluminium Upstream			**9,161**	8,402
Aluminium Downstream			**573**	627
Copper (including Dahej)			**2,616**	2,253
Inter-segment Profit/ (Loss) Elimination (Net)			**(60)**	414
Unallocable Income/ (Expense) – (Net) & GAAP Adjustments			**(2,069)**	(2,108)
Total EBITDA	**8,203**	**8,061**	**25,728**	**24,131**
Depreciation & Amortisation (including impairment)	**1,961**	1,927	**7,881**	7,294
Finance Cost	**1,268**	1,300	**3,858**	3,646
Earning before Exceptional Items, Tax & Share in Profit/ (Loss) in Equity accounted Investments	**4,974**	**4,834**	**13,989**	**13,191**
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)			**2**	9
Earning before Exceptional Items and Tax	**4,974**	**4,834**	**13,991**	**13,200**
Exceptional Income/ (Expenses) (Net)	**21**	41	**21**	41
Profit Before Tax (After Exceptional Items)	**4,995**	**4,875**	**14,012**	**13,241**
Tax Expense	**1,298**	1,549	**3,857**	3,144
Profit/ (Loss) After Tax	**3,697**	**3,326**	**10,155**	**10,097**
Other Comprehensive Income / (Loss)	**2,245**	1,702	**1,930**	7,460
Total Comprehensive Income	**5,942**	5,028	**12,085**	17,557
Basic EPS (`) in ₹	**16.64**	14.96	**45.71**	45.42

** As per US GAAP*

Appropriations to Reserves:*

(₹ crore)

Appropriations	**FY 2023-24**	**FY 2022-23**
Opening Balance in Retained Earnings and Other Comprehensive Income	**20,915**	15,280
Total Comprehensive Income for the Current Year	**5,942**	5,028
Dividends paid	**(667)**	(890)
Hedging (Gain)/ Loss and cost of hedging transferred to non-financial assets	**(15)**	-
Employee Share Based Transactions	**(1)**	(3)
Transferred to Debenture Redemption Fund	**-**	1,500
Closing Balance in Retained Earnings and Other Comprehensive Income	**26,174**	20,915

** Standalone basis*

Dividend

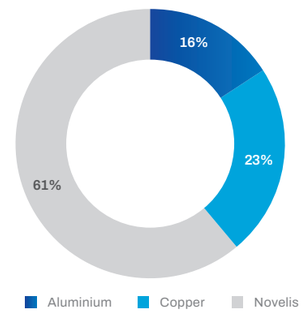
For the year ended 31 March 2024, the Board of Directors of your Company has recommended dividend of ₹ 3.50 per equity share of face value of ₹ 1 /- each (previous year ₹ 3.00) to equity shareholders.

CONSOLIDATED FINANCIAL STATEMENTS

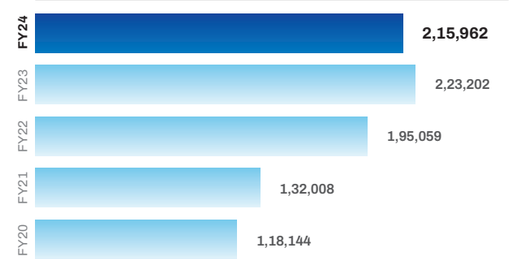
Revenue

Hindalco's consolidated revenue was down 3% at ₹2,15,962 crore in FY 2023-24 compared to ₹2,23,202 crore in FY 2022-23, largely influenced by lower global aluminium prices. The graphs below show the split of consolidated revenues by businesses in FY 2023-24 and the trend of revenues over the past five years.

Consolidated Revenue split by Business for FY 2023-24:



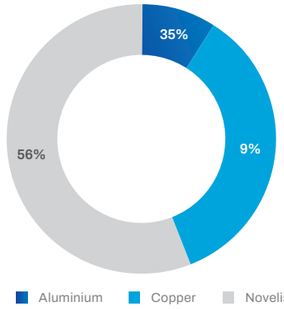
Revenue
(₹ crore)



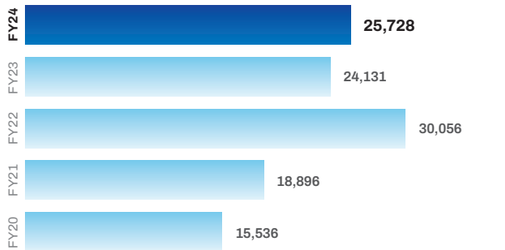
EBITDA

Consolidated EBITDA for FY 2023-24 was up 7% to ₹25,728 crore from ₹24,131 crore in the previous year. This was driven by higher EBITDA in the Aluminium Upstream and Copper businesses in India. The EBITDA margin in FY 2023-24 was at 11.9% compared to 10.8% in FY 2022-23. The graphs show the consolidated EBITDA split by businesses in FY 2023-24 and trends over the past 5 years.

Consolidated EBITDA split by Business: FY 2023-24



EBITDA
(₹ crore)



Finance Cost

Finance cost was up 6% at ₹3,858 crore in FY 2023-24 from ₹3,646 crore in FY 2022-23 mainly due to increase in interest cost in Novelis.

Partially same has been offset due to capitalisation of borrowing costs higher by ₹211 crore in FY 2023-24 on consolidated basis.

Depreciation and amortisation *(including net impairment loss/ (reversal) of non-current assets)*

Depreciation and amortisation (including net impairment loss/(reversal) of non-current assets) increased to ₹7,881 crore in FY 2023-24 from ₹7,294 crore in FY 2022-23 led by impairment activities related to the closure of the Clayton facility in New Jersey, USA, amounting to ₹177 crore for property, plant, and equipment, and ₹4 crore for Capital Work-in-Progress in FY 2023-24. Additionally, the impending closure of the Buckhannon facility in West Virginia, USA, led to an impairment of ₹154 crore for property, plant, and equipment in the same period.

Exceptional Income/ (Expense)

In FY 2023-24, total exceptional income was at ₹21 crore compared to ₹41 crore in FY 2022-23. This decline in exceptional income can be attributed to change in provision for expected cost of disposal of legacy ash lying in ash dykes/ponds, as per rules issued by the Ministry of Environment, Forest and Climate Change (MoEFCC). During the year ended 31 March 2024, in view of the regulatory approval received on closure of few ash dykes/ ponds, the company has reversed provision which is accounted as Exceptional Income.

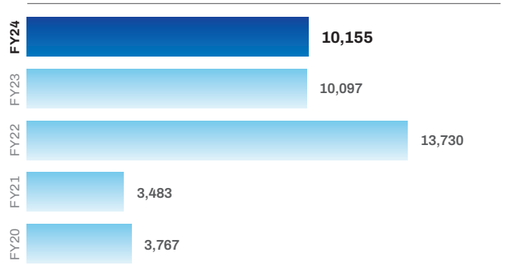
Taxes

Provision for taxes was at ₹3,857 crore in FY 2023-24 against ₹3,144 crore in FY 2022-23. This decrease was due to higher profitability of the Company in FY 2023-24, and the Group's decision to retain the existing tax structure until utilising accumulated MAT Credit and deductions under Chapter VIA of the Income Tax Act. They re-measured the deferred tax liability for the future transition to the new tax regime, writing back ₹427 crore of the net deferred tax liability and the company signed an MOU to sell land in Kalwa, Maharashtra, for ₹595 crore, to be paid in instalments and 1.5% of project sales revenue. They recognised previously unrecognised capital losses of ₹129 crore on Deferred Tax Assets due to expected future capital gains from this transaction.

Profit/ (Loss) after tax

Profit After Tax (PAT) in FY 2023-24 was at ₹10,155 crore up 1% from ₹10,097 crore a year ago. The net profit margin in FY 2023-24 was at 4.7% versus 4.52% in FY 2022-23.

Profit After Tax
(₹ crore)



Consolidated Net Debt to EBITDA

The consolidated balance sheet continued to remain strong with the Net Debt to EBITDA at 1.21 times at the end of March 2024 versus 1.39 times at the end of March 2023. (Net Debt to EBITDA = Consolidated Business EBITDA/ Consolidated Net Debt)

Circle Blanking line at Renukoot FRP

Financing & Debt Redemption

a) Redemption of Secured Non-Convertible Debentures

Your Company has redeemed the following Unsecured, Listed, and Non-Convertible Debentures on its maturity date.

Date of Allotment	Coupon Rate	Amount	Date of Maturity
18 January 2023	7.60% Unsecured, Listed, Rated, Redeemable, Non-Convertible Debentures	700 crore	18 March 2024

The aforesaid debentures are listed on National Stock Exchange of India Limited.

b) Issue of Non-Convertible Debentures

During the year under review, your Company has not allotted any Unsecured, Rated, Listed, Redeemable, Non-Convertible Debentures.

Key Financial Ratios

i. Debtors Turnover (Days)

The Consolidated Debtors Turnover Days on 31 March 2024 was 28 days compared to 30 days on 31 March 2023. This displays the Company's consistency in managing its credit with customers and reflects the Company's strong financial position with respect to its customers. The Debtor Turnover (Days) is calculated as Average Debtors/Total Consolidated Sales x 365 days.

ii. Inventory Turnover (Days)

The Consolidated Inventory Turnover Days on 31 March 2024 was at 71 days versus 71 days at the end of 31 March 2023. This indicates the Company's effective management of its inventory levels throughout the year. Inventory (days) is calculated by dividing the Average Inventory by Revenue from Operations x 365 days.

iii. Interest Coverage Ratio

The Consolidated Net Interest Coverage Ratio on 31 March 2024 stands at 6.67 times compared to 6.62 times on 31 March 2023. This is higher from the previous year because of higher earnings (EBIT). This ratio reflects the Company's ability and strength to meet its interest obligations.

iv. Current Ratio

The Consolidated Current/Liquidity Ratio as on 31 March 2024 stands at 1.48 times versus 1.51 times at the end of 31 March 2023 and is reflective of the Company's strengthening of liquidity or solvency position compared to the previous year.

v. Debt to Equity Ratio

The Consolidated Debt-to-Equity Ratio as on 31 March 2024 is well below 1.0x, at 0.53x times compared to 0.64x times as on 31 March 2023. This is indicative of the Company's strong balance sheet and ability to meet its current short-term obligations.

vi. Return on Net Worth (RoNW)

The Consolidated Return on Net Worth as on 31 March 2024 is 10.11%, compared to 11.67% on 31 March 2023. This decline was primarily because of growth in net worth being more than growth in PAT. This is calculated as Profit After Tax/Average Net Worth.

vii. Operating Margins

The Consolidated Operating Margins for FY 2023-24 stands at 11.22% versus 10.25% in FY 2022-23 indicating higher operating profit in the reporting period compared to the previous year. Operating Margin is calculated as Operating Profit/Net Sales.

viii. Net Profit Margins

The Consolidated Net Profit Margins as on 31 March 2024 stands at 4.7% compared to 4.52% as on 31 March 2023. The increase is on account of higher consolidated profits recorded during the reporting period. It is calculated as Net Profit/ Net Sales.

Consolidated Cash flow:

Cash generated from operations for Hindalco Consolidated stands at ₹24,056 crore in FY 2023-24 versus ₹19,208 crore in FY 2022-23.

The table below shows the comparative movement of cash flows:

(₹ crore)

	Particulars	Year ended 31/03/2024	Year ended 31/03/2023
A.	**CASH FLOW FROM OPERATING ACTIVITIES**		
	Operating Cashflow before working capital changes	**24,787**	22,445
	Changes in working capital	**1,944**	(457)
	Cash generated from operations before Tax	**26,731**	**21,988**
	(Payment)/Refund of Direct Taxes	**(2,675)**	**(2,733)**
	Net Cash generated/ (used) – Operating Activities – Continuing Operations	**24,056**	**19,255**
	Net Cash Generated/ (Used) – Operating Activities – Discontinued Operations	**-**	**(47)**
	Net Cash Generated/ (Used) – Operating Activities (a)	**24,056**	**19,208**
B.	**CASH FLOW FROM INVESTMENT ACTIVITIES**		
	Net Capital Expenditure	**(15,678)**	(9,637)
	Disposal of Investments in Subsidiaries (Net)/Business	**-**	24
	(Purchase) / Sale of treasury instrument (Net)	**1,899**	(214)
	Acquisition of business, net of cash acquired		-
	Investment in equity accounted investees	**(30)**	(17)
	Loans & Deposits (given) / received back (Net)	**(1,023)**	1,393
	Interest and dividends received	**585**	479
	Investment in Equity Shares at FVTOCI	**(43)**	(57)
	Others	**14**	13
	Net Cash Generated/ (Used) – Investing Activities – Continuing Operations	**(14,276)**	**(8,016)**
	Net Cash Generated/ (Used) – Investing Activities (b)	**(14,276)**	(8,016)
C.	**CASH FLOW FROM FINANCING ACTIVITIES**		
	Treasury shares acquired & Proceeds from Shares Issued by ESOP Trust	**(99)**	(125)
	Net Debt inflows/Outflows	**(6,139)**	(5,485)
	Interest & Finance Charges paid	**(3,912)**	(3,845)
	Dividend Paid (including Dividend Distribution Tax)	**(667)**	(890)
	Net Cash Generated/ (Used) – Financing Activities (c)	**(10,817)**	**(10,450)**
	Net Increase/(decrease) in Cash and Cash Equivalents (a) +(b) + (c)	**(1,037)**	**742**

Standalone Performance

On Standalone basis, your Company registered a revenue of ₹83,009 crore for the fiscal year 2024 vs ₹76,878 crore in the previous year up 8% on account of higher volumes in FY24. EBITDA (Earnings before Interest, Tax, Depreciation and Amortisation) stood at ₹8,203 crore, up 2% compared to the last year, supported by higher volumes, better margins, strategic product mix, stability in operations, and continued outstanding performance of its copper business. Depreciation (including net impairment loss/ (reversal) of non-current assets) was up 2% at ₹1,961 crore in FY24 versus ₹1,927 crore in FY23. The Finance Cost was 2% lower at ₹1,268 crore in FY24 versus ₹1,300 crore in FY23. The reduction of ₹131 crore in finance cost was due to pre-payment and repayment of debts made during the year. Additionally, interest capitalised during the financial year increased by ₹52 crore due to a rise in the average borrowing cost, which was 8.63% in FY 2023-24, up from 6.61% in the previous year. This reduction was partially offset by an increase of ₹211 crore in finance cost for working capital loans. Profit before Tax (and Before Exceptional Items) stood at ₹4,974 crore, up 3% compared to the previous year due to higher EBITDA. Net Profit for FY24 stood at ₹3,697 crore as compared to ₹3,326 crore, up 11% Y-o-Y.

Business Outlook

Hindalco's relentless focus is on product innovation, better efficiencies, digitalisation, and organic expansions, with a diversified product mix and cost competitiveness. The Company's long-term strategic investments in Novelis and the India downstream expansion projects will strengthen its presence across the value chain.

Global long-term demand for aluminium rolled products remains strong, driven by positive economic growth outlook, material substitution, and sustainability considerations. However, reduced demand for Can sheet beginning in the second half of fiscal 2023 is attributed to the beverage packaging industry reducing excess inventory as supply chains improved and markets adjusted to a more moderated level of beverage packaging demand following the COVID pandemic. We believe inventory levels across the beverage packaging supply chain have now largely normalised, and demand for recyclable aluminium beverage packaging will grow at a globally (excluding China) 4% CAGR between 2023 to 2031, mainly driven by sustainability trends.

Demand for aluminium sheet across specialties markets, including electronics, electric vehicle battery enclosures, painted products, container foil, and building and construction markets also remains strong over the long term. This is due to increased customer preference for lightweight, sustainable materials, despite current economic headwinds impacting near-term demand for building and construction and some industrial products.

The automotive segment is poised to display strong near-and long-term demand and is expected to grow at a CAGR of 7% between 2023 and 2028. This demand has been primarily driven by the benefits that result from using lightweight aluminium in vehicle structures and components, as automakers respond to stricter government regulations regarding emissions and fuel economy, while maintaining or improving vehicle safety and performance. We are also seeing increased demand for aluminium for electric vehicles, as aluminium's lighter weight can result in extended battery range.

Requirement for aerospace aluminium plate and sheet has strengthened as demand for air travel has recovered towards pre-COVID levels. In the longer-term, we believe significant aviation industry order backlogs will translate into future growth and our multi-year supply agreements have positioned us to benefit from expected demand in future.

Continuing inflation and geopolitical instability in Europe in fiscal 2023 led to increased global operating costs, including energy, freight, labour, coatings, and alloys. While many of these operating cost pressures have moderated in recent months, some costs, including for labour and repairs, and maintenance, remain elevated. Elevated interest rates have also increased interest expense on our variable interest rate loans. The challenging inflationary and geopolitical environment is negatively impacting near-term demand in some specialty end-markets, such as building and construction, which is more sensitive to inflation and interest rates. We expect such elevated costs and reduced demand until economic conditions stabilise. Despite our results being negatively impacted by higher costs, we have been able to partially mitigate a portion of the higher inflationary cost impact through a combination of hedging, passing through a portion of the higher costs to customers, favourable pricing environments, and utilising recycled materials. We have also implemented cost control measures across our global operations, including a focus on employment, professional services, and travel costs. There is no assurance that we will continue to be able to mitigate these higher costs in the future.

Domestic copper demand is primarily fuelled by rods, a key downstream product in the copper industry. Hindalco has successfully increased its market share and met the rising domestic demand by expanding its copper value-added product (VAP) capacity, particularly through the production of rods and inner grooved tubes.

A view of HIC Belagavi. This year, the team delivered on key projects such as development of Boehmite for battery separator applications, Stearic-coated superfine hydrates, and Bimodal Hydrates.

In its commitment to strengthen its position as a sustainability leader in the industry, Hindalco has set strategic priorities and allocated capital to foster organic growth in India and Novelis. These initiatives also emphasise enhancing value through (ESG) practices.

Research, Development & Technology

The Company's Research, Development & Technology (RD & T) activities are managed by dedicated technology teams at Hindalco Innovation Centres. The team's main focus is the development and commercialisation of premium differentiated products, improving our competitive cost position and product quality through process improvements and new process technologies. To support these goals, we are managing a pipeline of short-term and long-term technology programmes at 4 Hindalco Innovation centres in collaboration with the Aditya Birla Group's global research and development hub (The Aditya Birla Science and Technology Company), and external research institutes. The project portfolio addresses immediate needs for technologies, as well as the exploration of future opportunities.

This year, the technology team continued to make our processes greener and sustainable through value added products and applications. These initiatives helped our plants mitigate challenges of raw material quality, specific energy consumption, carbon footprint, cost effective management of waste, and recovery of value from by-products and waste products. Specific programmes such as CO_2 mineralisation with technology start-up Carbon 8 have been initiated. We continued our digitalisation programmes such as soft sensors, digital twins, etc. These initiatives are helping operation teams improve process control and achieve desired process performance. Technical competencies developed by the Company will go a long way in quick absorption/ adoption technologies to elevate economic performance and improve our new product/ new application pipeline to address impending market opportunities.

Bauxite & Alumina RD&T: Hindalco Innovation Centre (HIC) Alumina at Belagavi continued to focus on bauxite ore & alumina refining processes and specialty alumina, hydrate products & their applications. This HIC is helping the Aditya Refinery Project team on basic technology engineering and evaluation of bauxite samples. This year, key projects on development of boehmite for battery separator applications, stearic-coated Superfine Hydrates, Bimodal Hydrates, were successfully developed and commercialised in collaboration with the operations and marketing teams. HIC collaborated with a start-up to develop a process for gallium extraction and purification from spent liquor generated during Bayer process. Gallium is a strategic metal, and a process to extract gallium was fulfilled on a request from the Ministry of Mines, Government of India.

Primary Aluminium RD&T: This year we initiated a project to set up a dedicated a Booster Section of 10 pots at Mahan smelter to demonstrate the novel HiPoT 400 kA pot design developed in collaboration with ABSTC. This booster section will help to evaluate and implement inhouse technology at Mahan and Aditya smelters to increase production capacity and reduce specific energy consumption. The technology team continued to implement a range of technology solutions, which includes next generation Cu-onsert & Cu-insert collector bars, at smelters. The team has been working to develop inhouse advance process control at Aditya smelter.

Aluminium downstream RD&T: HIC-Semifab team along with SMEs are continuing research on optimising the product quality and developing new products and applications. This year, the technology team successfully developed battery-grade aluminium foils, which are being evaluated by customers. New aluminium alloy plates for Aluminium-Air batteries were also developed in collaboration with ABSTC and Phinergy, Israel. The technology team continued to focus on reducing the dependence on premium aluminium imports by developing solutions such as peripheral coarse grain-controlled alloys, that exceed surface and performance targets. The team also delivered high performance material solutions for battery enclosures for use in electric vehicles and continued to develop new light weighting applications in the transport segment.

Copper RD&T: This year HIC-Copper along with ABSTC focused on new technology projects such as evaluation of e-waste recycling process technologies, Cu-Mg alloy rods for railways applications, and new copper Inner Grooved Tubes for air conditioning. Under sustainability initiatives, a novel process was created to extract nickel from effluent stream, which will be used to develop battery grade nickel compounds.

The Company also has series of collaborative programmes with IITs, CSIR labs, as well as national and international start-ups to build competencies in select areas and create long term value. These engagements along with in-house research has resulted in the doubling of patent applications and research publications in international journals and conferences.

Sustainability

At Hindalco, we strive to create value from revenue streams that benefit the planet and people. Our firm commitment to ESG is proven through the fact that we are among the top 1% in the aluminium industry in the S&P Global Sustainability Yearbook 2024 for the third year in a row. We've demonstrated our commitment to addressing critical sustainability issues by working closely with stakeholders across the value chain. This approach reflects our plan for mutual growth, thereby earning the trust of all partners in the process.

At Hindalco, sustainability is driven at the highest level through the Apex Sustainability Committee, chaired by our Managing Director. The committee ensures the

An overview of our Copper plant at Dahej, Gujarat

implementation and monitoring of sustainability initiatives across the organisation. Our task forces and ESG SPOCs from all functions work to implement sustainability initiatives at the grassroots. A roadmap to achieve Net Zero by 2050 has been established, and we're already making significant progress. We've installed 173 MW of renewable energy capacity, with plans to scale it up to 300 MW by 2026.

The Company aims to achieve overall water positivity by 2050, with a sub-target of making downstream and mining operations water-positive by 2030. Currently, 5 mines are certified for water positivity by DNV GL. To make our operations entirely water-positive, we have ramped up freshwater conservation efforts using water from treated rainwater sources and desalinated water in the copper business. To achieve Zero Waste to Landfill by 2050, Hindalco extracts value from the waste generated and amplifies its waste recycling. As Currently of date, 3 of Hindalco's plants have been certified Zero Waste to Landfill by Bureau Veritas Industrial Services (India) Pvt. Ltd.

The Company is committed to protecting biodiversity and has developed BMPs for critical sites in collaboration with IUCN, aiming to achieve No Net Loss by 2050. Our industry-first Sustainable Mining Charter and KPIs under 7 thematic areas are the other crucial steps Hindalco has taken to make its mining vertical more sustainable. Hindalco's downstream operations (rolling, extrusions, and foils) and one refinery are now certified by the Aluminium Stewardship Initiative (ASI).

Hindalco engages with local communities to ensure mutual prosperity, which is achieved through programmes in education, healthcare, livelihood, infrastructure, and social reforms. The Company strongly believes in inclusive growth. This motivates Hindalco to deploy all resources necessary to bring about a positive change in the spaces in which it operates.

The initiatives and performance are detailed in the 'Our Capitals' section of this report.

Safety

As a responsible corporate, Hindalco's top priorities are human health and safety. The health and safety policy has been implemented at all plants and mines through robust occupational health and safety management standards. To achieve the goal of Zero Harm and a good safety performance, various programmes initiated in the past few years are being continued. New initiatives, especially those using digital tools, are being introduced. As all these programmes mature, the safety culture in the organisation is getting strengthened. Improvement in safety indices continued in FY'24 – with a 5% reduction in LTIFR (0.22) and an 18% reduction in LTISR (82.72) from last year.

Although, the reduction in high severity accidents is encouraging and there were no fatalities among employees, the Company lost one contract driver in a vehicle-related accident in the mines. Hindalco regrets this loss and will strive to ensure every measure is in place to avoid any type of harm to the organisation and the community.

Hindalco's entire operations are audited every year, and all the businesses are set to meet the defined health and safety performance requirements and defined targets.

The initiative of leading cross-entity safety audits by business heads/cluster heads has been scaled up. In FY-24 all CEOs, COOs, Head MCOE, and Business heads have led at least one or more corporate cross-entity safety audits at various units and mines. Audits conducted under the leadership of business heads is an industry-first move, and clearly shows Hindalco's commitment to safety and its goal of becoming a zero-harm organisation.

The behaviour-based safety programmes at Hindalco have created a milestone through reinforcement of safe behaviour and reduction in unsafe behaviour. A total of 8,40,945 Behaviour-based Safety Observations and Potential Injury Observations were reported, and 6,67,974 numbers liquidated across Hindalco, against a target reporting of BBSO & Potential Injury Observations of 7,21,512 – a 116% + achievement on reporting side.

Hindalco invested approximately 17,79,734.78 man-hours towards classroom and on-the -job safety training (including direct employees and contract workmen) this year, against a set target of 9,82,104 man-hours. The focus on on-the-job training resulted in a 181.22% increase in man-hours dedicated to training compared to the previous year.

Hindalco's Apex Integrated Health Committee, which is led by a business head, has made all possible efforts related to health monitoring and improvement. This committee has supported the implementation of occupational health risk assessment and management procedures at all Hindalco sites.

Hindalco completed the Qualitative Exposure Assessment (QIEA) and Quantitative Exposure Assessment (QnEA) studies of all its manufacturing plants, and mines scheduled in FY 2023-24 and all recommended action points have been implemented.

All employee health data are recorded and monitored through PEHEL Software. This is also helping in giving the company a view of Health Risk Zones of employees.

In order to enable units to manage travel-related hazards, we introduced mobile apps to track journey risk assessment in FY 2023-24. This app provides real-time updates on route conditions, weather forecasts, and potential risks, enabling travelers to make informed decisions and mitigate dangers before they arise.

Furthermore, the development of specialised software for audit and assurance streamlined safety processes, enhancing efficiency and accuracy in compliance management.

We also leveraged digital platforms for contractor safety management, centralisation of data, and communication to ensure uniformity in implementation of safety standards across plants/ mines. Additionally, remote monitoring technologies transformed confined space job safety by enabling real-time supervision and intervention, which minimised risks to workers, and improved overall safety outcomes.

A comprehensive software solution was introduced to generate monthly safety reports from units and mines, facilitating data aggregation, analysis, and visualisation to drive informed decision-making and proactive safety measures.

These digital initiatives marked significant strides in enhancing safety protocols, thus fostering a culture of prevention, and safeguarding the well-being of workers.

Human Capital

Hindalco has been recognised as one of the top 10 Best Workplaces in Health & Wellness for 2024 by the Great Place to Work (GPTW) Institute. Our high scores in health and wellness signifies our commitments to the collective wellbeing of our people

Shillim, our culture change movement, has been successful in achieving considerable change in mindsets and ways of working. Parallelly, through Parivartan and Tamrodaya interventions at manufacturing locations, we intent to reach the next level of excellence.

As part of our Shillim initiatives, 48000 plus Bhoomika cards were exchanged, and 278 boards were presented as of today. As part of My People Hour (Empowerment by Design)-1900 sessions were conducted, and 617 decisions were devolved. Hindalco is transforming its culture and capability at grassroot level, transitioning to a dynamic cross-functional way of working, focusing on efficiency, innovation, digitalisation, and sustainability.

Our engagement and agility scores in VIBES Survey 2023 have improved by 7% vis-à-vis scores achieved in VIBES 2021 Survey, demonstrating the impact and success of culture change interventions.

We attract and nurture talent by providing experiential learning across our business value chains, intertwining their journey with meaningful CSR experiences during onboarding and induction.

In line with our focus on gender diversity, over the last decade, the number of women in management positions has nearly tripled. Share of women in our workforce stands at 9.8% and 15% for Hindalco India operations and Novelis respectively.

Under the First 10 Best 10 (F10B10) initiative, we are grooming home-grown talent and future leaders for the metals and mining industry. Our emphasis on capability building offers specialised technical and functional career paths. In FY 2023-24, we witnessed approximately 15% internal career movement in management grade only, which is a positive indicator of the above approach.

This year, on Human Rights Day, we celebrated and created awareness across Hindalco, reinforcing our pledge to prioritise human rights in all our endeavours. We launched our Human Rights Due Diligence (HRDD) self-assessment tool across all our units and conducted external audits of the HRDD tool at our Odisha plants and Gare Palma Mines.

Internal Control Systems and Adequacy of Internal Financial Controls:

The Company has an internal control system commensurate with the size, scale, and complexity of its operations.

The aim of the internal control system is to manage business risks with a view to enhance shareholder value and safeguard the Company's assets. The Company has in place a robust mechanism for internal audits led by with a dedicated Assurance & Control Function comprising specialists. The Internal Auditor is duly appointed by the Audit Committee and Board., viz. M/s. Ernst & Young for the Aluminium & Copper businesses. The Audit Committee discusses audit plans and significant audit observations made by the internal auditor for necessary corrective actions.

Our internal financial control framework is designed to ensure the accuracy and reliability of our financial and other records. Plus, we have identified and documented key risks and controls for each process related to financial operations and reporting. An extensive programme of internal audits and management reviews supplement the process of the framework.

Disclosures in terms of the Provisions of the Companies Act, 2013 *("the Act")* and Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) 2015 *("SEBI Listing Regulations")*

A. Board of Directors *("Board")*

(i) Meetings of the Board

During the year under review, six (6) Meetings of the Board of Directors were held. The details of the Meetings of the Board of Directors of the Company held and attended by the Directors during the financial year 2023-24 are given in the Report of Corporate Governance forming part of this Integrated Annual Report.

The maximum interval between any two Meetings did not exceed 120 days, as prescribed by the Act and the SEBI Listing Regulations.

(ii) Board Constitution and Changes

As of 31 March 2024, the Board of Directors comprised 10 Directors (including 2 women Directors), 5 of which were Independent Directors, 3 were Non-Executive Directors (2 were Promoter Directors), Whole-time Director and a Managing Director.

Based on the recommendation of the Nomination and Remuneration Committee *("NRC")* and approval of the Board of Directors, the Shareholders accorded their approval on the below mentioned (a) appointments and (b) reappointments, *respectively*, on 20 March 2024, by way of Resolutions passed *via* postal ballot.

(a) Appointments

Name of the Director	Mr. Arun Adhikari *DIN: 00591057]*	Mr. Sushil Agarwal *[DIN: 00060017]*
Designation	Independent Director	Non-Executive Director
Tenure	1 May 2024, until 30 April 2029	With effect from 1 May 2024, *liable to retire by rotation*
Type of Resolution	Special	Ordinary

In the opinion of the Board, Mr. Arun Adhikari and Mr. Sushil Agarwal bring the required experience, integrity, expertise, and relevant proficiency to the Board, adding tremendous value in exercising their role effectively. The requisite declarations and eligibility confirmations under the provisions of the Act and SEBI Listing Regulations have been received from them for considering their appointment as Directors.

(b) Reappointments

Name of the Director	Mr. Praveen Kumar Maheshwari *[DIN: 00174361]*	Mr. Satish Pai *[DIN: 06646758]*	Dr. Vikas Balia *[DIN: 00424524]*
Designation	Whole-time Director	Managing Director	Independent Director
Tenure	1 April 2024, until 31 March 2025	1 August 2024 until 31 December 2027	19 July 2024, until 18 July 2029
Type of Resolution	Ordinary		Special

Resignations

During the year under review, Mr. Anant Maheshwari *[DIN: 02963839]*, resigned as an Independent Director of your Company w.e.f. 18 October 2023, due to personal reasons.

The Board placed on record its sincere appreciation towards the valuable contribution made by Mr. Anant Maheshwari during his tenure.

Retirements

Board has decided not to fill the vacancy caused by the retirement of Mr. Askaran Agarwala *[DIN: 00023684]*, a Director, who retires by rotation at the 65th Annual General Meeting and does not seek reappointment.

The Board placed on record its sincere appreciation towards the valuable contribution made by Mr. Askaran Agarwala during his tenure.

Retirement by Rotation

Mr. Kumar Mangalam Birla *[DIN: 00012813]*, is due to retire by rotation at the ensuing Annual General Meeting and being eligible, offers himself for reappointment.

Resolution seeking the reappointment of Mr. Kumar Mangalam Birla along with his brief profile, forms part of the Notice of the 65th Annual General Meeting.

(iii) Declaration of Independence

The Company has received the necessary declaration from each Independent Director in accordance with Section 149(7) of the Act and Regulations 16(1)(b) and 25(8) of the SEBI Listing Regulations, that he / she meets the criteria of independence as laid out in Section 149(6) of the Act and Regulations 16(1)(b) of the SEBI Listing Regulations.

In the opinion of the Board, there has been no change in the circumstances which may affect their status as Independent Directors of the Company and the Board is satisfied of the integrity, expertise, and experience (including proficiency in terms of Section 150(1) of the Act and applicable rules thereunder) of all Independent Directors on the Board.

Further, in terms of Section 150 read with Rule 6 of the Companies (Appointment and Qualification of Directors) Rules, 2014, as amended, Independent Directors of the Company have included their names in the data bank of Independent Directors maintained with the Indian Institute of Corporate Affairs.

(iv) Board Evaluation

The Company believes that the process of performance evaluation at the Board level is pivotal to its Board engagement and effectiveness. The Company overhauled its Board Evaluation process during the year under review thereby with a comprehensive questionnaire comprising of subjective and objective questions thereby broadening the scope and parameters for assessment. The revised criteria for Board Evaluation was duly approved by the NRC on 13 February 2024, according to which the Board conducted annual performance evaluation of its own performance, the Directors individually, as well as the evaluation of the working of its Committees and the Chairman of the Board as mandated under the Act and the SEBI Listing Regulations.

The evaluation criteria for the Board, Committees, Directors, Independent Directors, and Chairperson encompass an assessment of various aspects crucial for effective governance and decision-making within the Company. The Board evaluation is structured around various key areas including the aspects like Board Structure, Meetings, Functions, Sustainability, and Digital Strategy.

The evaluation criteria for Committees additionally focuses on their mandate, composition, effectiveness, contribution to board decisions and inclusivity.

Similarly, for all Directors including the Independent Directors, the evaluation criteria encompass their understanding of roles and responsibilities, the external knowledge and perspectives they bring to the table, active participation in discussions, continuous updation and preparation.

BOARD EVALUATION PARAMETERS

1. Board
- Structure
- Meetings
- Functions & Management
- Sustainability
- Digital Strategy

2. Committees
- Mandate & Composition
- Effectiveness
- Contributions to Decisions of Board
- Board Inclusivity

3. Chairperson
- Leadership
- Contribution to Board Members

4. Individual Directors
- Fulfilling the functions assigned
- Time invested in understanding the Company
- External Knowledge
- Views on issues

5. Independent Directors
- Independence criteria as per SEBI Listing Regulations
- Independence in law and in spirit from the company's management

Additionally, specific criteria are included for Independent Directors and Chairpersons to evaluate their adherence to regulatory requirements and effectiveness in leading and fostering inclusive board dynamics, respectively.

The evaluation is conducted through an online mode in a confidential manner and the Directors provide their feedback by rating based on various metrics.

The inception of Board's evaluation process was approved by the Board in year 2014. Basis the framework the results of the evaluation was placed before the NRC and Board. The evaluation framework has been overhauled in February 2024, with the inclusion of a detailed assessment that indicates a proactive approach to adapting governance practices to cater to the need of the hour. Below is a highlight of structured overview of the changes and their implications:

Changes in Board Evaluation Process:

1. **Scale Revision:** The evaluation scale has evolved from a 3-point scale (Completely Agree, Somewhat Agree, Disagree) to a more nuanced 5-point scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree). This change allows for finer distinctions in feedback, providing clearer insights into the Board's performance.

2. **Expanded Focus Areas:** The evaluation now encompasses broader responsibilities:
   a) Board Composition and Inclusivity: Ensuring diverse perspectives and skills.
   b) Effectiveness: How well the Board functions as a strategic entity.

3. **Additional Evaluation Criteria:**
   a) **Balancing Stakeholder Interests:** Reflects a more stakeholder-centric approach.
   b) **Strategic Guidance:** Assessing the Board's role in setting and achieving strategic goals.
   c) **Safeguarding Long-term Interests:** Emphasises sustainability and ethical considerations.
   d) **Awareness of Legal Compliance:** Ensuring adherence to relevant laws and regulations.

Independent Directors' Performance Evaluation:

1. **Focused Criteria:**
   a) **Investment of Time:** Understanding the company's unique needs through dedicated effort.
   b) **External Perspective:** Bringing external insights to board discussions.
   c) **Expression of Opinion:** Active participation and contribution in board deliberations.
2. **Descriptive Questions:** Inclusion of open-ended questions allows for qualitative feedback and suggestions from Board members. This promotes continuous improvement in governance practices.

Implementation of Recommendations:

1. **Feedback:** Recommendations from the Board members are discussed with the independent directors at their separate meeting and subsequently with the NRC and the Board, wherein the evaluation and suggestions are considered.
2. **Actionable Steps:** The company has taken steps to implement suggestions, demonstrating a commitment to evolving and strengthening governance processes.

B. Committees of the Board

The Board has constituted seven (7) committees, viz. Audit Committee, Corporate Social Responsibility Committee, Risk Management Environment Social and Governance *("RM&ESG")*, Committee, Nomination and Remuneration Committee, Stakeholders' Relationship Committee, Prevention of Insider Trading, Finance Committee and is authorised to constitute other functional Committees, from time to time, depending on business needs.

Details with respect to the composition, terms of reference, number of meetings held, etc. of the above Committees are included in the Corporate Governance Report, which forms part of this Integrated Annual Report.

C. Key Managerial Personnel *(KMP)*

In accordance with the provision of Sections 2(51) and 203 of the Act read with the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, the Key Managerial Personnel of your Company are:-

1. Mr. Satish Pai, Managing Director;
2. Mr. Praveen Kumar Maheshwari, Chief Financial Officer & Whole-time Director and
3. Ms. Geetika Anand, Company Secretary.

During the year under review, there has been no change in the Key Managerial Personnel.

D. Remuneration of Directors and Employees

The Managing Director's goals are defined by the Company's 3C *(Customer, Care and Cost)* + 2S *(Safety & Sustainability, Systems & Processes)* principle. Customer centricity and product development is a focus area with dedicated objectives on sales and customer satisfaction. The cash and cost goals focus on profitability, cash flows, production and cost optimisation. The sustainability goals cover Hindalco's performance in air, water, waste, biodiversity, climate management and overall ESG performance. System and process goals cover digitalisation, HR planning and driving culture. Performance evaluation is linked to the achievement of these goals. ESOPs are allocated based on performance, and vesting depends on the performance of the business in the preceding year.

Disclosures pertaining to remuneration and other details as required under Section 197(12) of the Act, read with Rule 5(1) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, is given in **Annexure I** to this Report. In accordance with the provisions of Section 197(12) of the Act read with Rules 5(2) and 5(3) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, the names and other particulars of employees drawing remuneration in excess of the limits, set out in the aforesaid rules, forms part of this Report. In line with the provisions of Section 136(1) of the Act, the Report and Accounts, as set out therein, are being sent to all the Members of your Company, excluding the aforesaid information about the employees. Any Member, who is interested in obtaining these particulars about employees, may write to the Company Secretary at hilinvestors@adityabirla.com

E. Employee Stock Option Schemes and Share Based Employee Benefits:

Employee stock options is a conditional share plan for rewarding performance on pre-determined performance criteria and continued employment with the Company.

In terms of the provisions of applicable laws and pursuant to the approval of the Board and the Members of your Company, the NRC has duly implemented the following schemes:

a) Hindalco Industries Limited Employee Stock Options Scheme 2013 *("Scheme 2013")*
b) Employee Stock Option Scheme 2018 *("Scheme 2018")*
c) Hindalco Industries Limited Employee Stock Option and Performance Stock Unit Scheme 2022 *("Scheme 2022")*

The above Schemes are in line with the SEBI (Share Based Employee Benefits and Sweat Equity) Regulations, 2021 *("SEBI SBEB Regulations").* The details as required to be disclosed under the SBEB Regulations can be accessed at www.hindalco.com

A certificate from the Secretarial Auditors, with respect to the implementation of the Company's ESOS schemes in accordance with Regulation 13 of the SEBI SBEB Regulations, would be placed before the Shareholders at the ensuing Annual General Meeting. A copy of the same will also be available for inspection through electronic mode.

F. Related Party Transactions

Ambit of related party and related party transactions *("RPTs")* has been expanded pursuant to the SEBI amendments from time to time. Accordingly, approval and disclosure requirements for RPTs have also been strengthened, within your organisation.

During the year under review, all contracts, arrangements, and transactions entered into by your Company with related parties were on an arm's length basis and in the ordinary course of business. There were no material transactions with any related party as defined under Section 188 of the Act, read with the Companies (Meetings of Board and its Powers) Rules, 2014. All RPTs were approved by the Audit Committee and reviewed by it on a quarterly basis. Prior omnibus approval is obtained for RPTs that are repetitive in nature, entered in the ordinary course of business, and on an arm's length basis.

The Company did not have any contracts or arrangements with related parties in terms of Section 188(1) of the Act. Accordingly, the disclosure of RPTs as required under Section 134(3)(h) of the Act in Form AOC-2 is not applicable to the Company for financial year 2023-24 and hence does not form part of this Report.

Pursuant to SEBI Listing Regulations, the resolution for seeking approval of the Shareholders on material RPTs for transactions to be entered in FY25 is being placed at the ensuing Annual General Meeting.

Details of RPTs entered into by your Company, in terms of Ind AS-24 have been disclosed in the notes to the standalone / consolidated financial statements forms part of this Report.

In line with the requirements of the Act and the SEBI Listing Regulations, your Company has formulated a Policy on RPTs. The Policy is available on the Company's website at www.hindalco.com

G. Dividend Distribution Policy

In terms of Regulation 43A of the SEBI Listing Regulations, your Company has formulated a Dividend Distribution Policy, with an objective to provide the dividend distribution framework to the Stakeholders' of your Company. The policy sets out various factors, which are considered by the Board in determining the dividend pay-out. The policy is annexed as **Annexure II** to this Report and is also available on the website of your Company at www.hindalco.com

H. Subsidiary, Associates & Joint Venture Companies

Pursuant to the provisions of Section 129(3) of the Act, read with the Companies (Accounts) Rules, 2014 and in accordance with applicable accounting standards, statement containing the salient features of financial statements of your Company's subsidiaries, associates and Joint Venture Companies are provided, in prescribed Form AOC-1 is annexed as **Annexure III** to this Report.

Your Company has adopted a policy on determination of material subsidiaries in line with the SEBI Listing Regulations. The policy aims to determine the material subsidiaries of your Company and to provide the governance framework for such subsidiaries.

Utkal Alumina International Limited and Novelis Inc. are material unlisted subsidiaries of your Company. Your Company does not have any material listed subsidiary.

In accordance with Section 136 of the Act, the audited financial statements, including the consolidated financial statements and related information of your Company and audited financial statements of your Company's subsidiaries, joint ventures / associate companies, are available on our website, at www.hindalco.com

I. Corporate Social Responsibility

In terms of the provisions of Section 135 of the Act read with the Companies (Corporate Social Responsibility Policy) Rules, 2014, the Board of Directors of your Company has constituted a Corporate Social Responsibility *("CSR")* Committee, chaired by Mrs. Rajashree Birla. The other Members of the Committee are Mr. Yazdi Dandiwala, Independent Director, Mr. Sudhir Mital, Independent Director (w.e.f. 1 May 2024), Mr. Askaran Agarwala, Non-Executive Director and Mr. Satish Pai, Managing Director. Dr. (Mrs.) Pragnya Ram, Group Executive President, Group Head – CSR, Legacy Documentation & Archives & Corporate Communication is a permanent invitee to the Committee.

Your Company also has in place a CSR Policy and the same is available on the Company's website at www.hindalco.com

Your Company is a caring corporate citizen and lays significant emphasis on development of the communities around which it operates.

Your Company has identified several projects relating to Social Empowerment & Welfare, Infrastructure Development, Sustainable Livelihood, Health Care and Education during the year and initiated various activities in neighboring villages around plant locations. During the year, the Company has spent ₹ 47.86 crore *[Rupees Forty-seven crore and eighty six lakhs only]* towards both Ongoing Projects and other than Ongoing Projects and has transferred ₹ 47 crore *[Rupees Forty seven crore only]* to an unspent CSR account relating to Ongoing Projects.

The Annual Report on CSR activities is annexed as **Annexure IV** to this Report.

J. Conservation of Energy, Technology and Foreign Exchange Earnings & Outgo

The particulars, as prescribed under Section 134(3)(m) of the Act, read with the Companies (Accounts) Rules, 2014, are annexed as **Annexure V** to the Directors' Report, which forms part of this Report.

The details of the Foreign Exchange Earnings and Outgo are as follows:

[₹ crore]

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Foreign Exchange Earnings	**18,018**	17,319
Foreign Exchange Outgo	**45,715**	37,933

K. Risk Management

Pursuant to the requirement of Securities and Exchange Board of India (Listing and Disclosures Requirement) Regulations, 2015, the Company has constituted Risk Management and ESG Committee *('RM & ESG')*, which is mandated to review the risk management plan/process of your company. The Company has a Risk Management Policy in place and regularly reviewed by Risk Management and ESG Committee. The policy is applicable across all our operations and is uploaded on the website of the Company at www.hindalco.com.

We have an established risk governance framework that enables proactive decision-making and ensures the organisation remains resilient. At Apex level, we have the Board level RM&ESG, headed by one of the Board members and comprising Managing Director *('MD')*, Chief Financial Officer *('CFO')* and Independent Directors as members. The invitee to these meetings are Chief Risk Officer *('CRO')*, Head of Treasury, Company Secretary, Head of Sustainability and business heads depending on the agenda matters. The committee meets every quarter and provides guidance and strategic direction for effective risk management, with oversight on risk exposure. Committee also ensures that appropriate methodology, processes, and systems are in place to evaluate and monitor risks associated with the business of the Company and reviews the adequacy of the risk management practices and actions deployed by the management for identification, assessment, mitigation, monitoring and reporting of key risks to the achievement of business objectives. We also have Risk Steering committee and Plant Risk committee comprising of various members such as direct reports of MD, plant heads, functional heads etc. These committees ensure identification, mitigation, and review of risks at various levels. Risk owners, Mitigation owners, Risk Champion and Risk coordinators are mapped for management of various risks at different levels.

Hindalco ERM framework incorporates guidelines from international frameworks including COSO and ISO 31000 and benchmark industry practices while also be tailored to suit the business objectives of the company. The framework is fully integrated with our strategic priorities. Responsibility of ERM process implementation is with Central ERM team while accountability of managing risks is with the business.

The CRO is responsible for the functioning of enterprise risk management and heads the central risk management team. The latter is the custodian of the risk management process at all locations. To manage the risks at the grassroots we have an established team structure at cluster, site, and department levels. These teams are responsible for implementing risk mitigation plans and report to the Risk Management Head at regular intervals. The ERM process being data intensive, an advanced IT system has been deployed across the organisation for management of risks through real-time dashboards. The digital system supports risk analytics and helps in developing a uniform risk culture as the same ERM framework is used from identification to reporting and reviewing risks.

Risk management and compliance with risk procedures are a part of the Key Result Areas (KRAs) of senior management and is linked to their variable incentives. The year has been disruptive for the global business environment, with the various Geo-political events, Climate change, Supply chain disruption through Red Sea, increased vulnerabilities to Artificial intelligence to name a few. The Company remained vigilant of the ever changing macroeconomic, geopolitical situation, ESG landscape and global financial market sentiments to proactively manage risks in FY 2023-24. Identification and monitoring of Key risk indicators and mitigation plans has enabled us to become resilient to uncertainties and deliver the performance. The risk management framework is audited internally and externally during the Integrated Management System (IMS) audits. In addition, we regularly monitor and evaluate existing and emerging risks.

L. Vigil Mechanism

Your Company has in place a robust vigil mechanism for reporting genuine concerns through the Company's whistle-blower Policy. Your Company has implemented a whistle-blower policy for Directors and employees to report concerns about unethical behaviour, actual or suspected fraud, or violations of your Company's Code of Conduct. Adequate safeguards are provided against victimisation for those who avail the mechanism and direct access to the Chairperson of the Audit Committee is provided in exceptional cases.

The whistle-blower policy is available on your Company's website at www.hindalco.com

M. Nomination Policy and Executive Remuneration Policy / Philosophy

Your Company's remuneration policy is directed towards rewarding performance based on the review of achievements. The remuneration policy aligns with existing industry practices, and there has been no change in the policy during the year.

The Remuneration Policy of your Company, formulated by the NRC of the Board, is annexed as **Annexure VI** to this Report and also available on your Company's website at www.hindalco.com

We affirm that the remuneration paid to the Directors is in accordance with the terms laid out in the Nomination and Executive Remuneration Policy of the Company.

N. Business Responsibility and Sustainability Report

In accordance with Regulation 34(2)(f) of the SEBI Listing Regulations, the Business Responsibility and Sustainability Report *["BRSR"]* forms part of this Integrated Annual Report. The report describes initiatives undertaken by the Company from an environmental, social and governance perspective. Further, SEBI vide its circular no. SEBI/HO/CFD/CFD-SEC-2/P/CIR/2023/122 dated 12 July 2023, updated the format of BRSR to incorporate BRSR core, a subset of BRSR, indicating specific Key Performance Indicators (KPIs) under nine ESG attributes, which are subject to mandatory reasonable assurance by an independent assurance provider. In accordance with this requirement, the Company has appointed Bureau Veritas (India) Private Limited as the assurance provider for BRSR core.

O. Directors' Responsibility Statement

Your Directors state that:

a) in the preparation of the annual accounts, applicable accounting standards have been followed along with proper explanations relating to material departures if any;

b) accounting policies selected have been applied consistently and judgments and estimates have been made that are reasonable and prudent so as to give a true and fair view of the state of affairs of your Company as at the end of the financial year and of the profit of your company for that period;

c) proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of your company and for preventing and detecting fraud and other irregularities;

d) the annual accounts of your Company have been prepared on a 'going concern' basis;

e) Your Company had laid down internal financial controls and that such internal financial controls are adequate and were operating effectively;

f) Your Company has devised proper system to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively;

g) Your Company has been in compliance with the applicable Secretarial Standards issued by the Institute of Company Secretaries of India.

Continuous cast coils being inspected for thickness at Renukoot FRP plant

P. Audit and Auditors: FY 2023-24

Statutory Auditor	+ M/s. Price Waterhouse & Co. Chartered Accountants LLP *[Firm Registration No. 304026E / E-300009]* were appointed as the Statutory Auditors of your Company. + The report of the Statutory Auditors along with notes to financial statements for the FY 2023-24 is enclosed to this Report. There has been no qualification, reservation, adverse remark or disclaimer given by the Auditors in their Report.
Secretarial Auditor	+ In terms of provisions of Section 204 of the Act, read with the Companies *(Appointment and Remuneration of Managerial Personnel)* Rules, 2014, the Board, at its meeting held on 24 May 2023 had appointed M/s. Dilip Bharadiya & Associates, Company Secretaries *[ICSI Unique Code:P2005MH091600]* to conduct Secretarial Audit for the FY 2023-24. + The report of the Secretarial Auditor is provided in **Annexure VII**, which does not contain any qualification, reservation, or adverse remark. + The Secretarial Audit Report of its unlisted material subsidiary is annexed as **Annexure VIIA** to this Report.
Cost Auditor	+ M/s. R. Nanabhoy & Co., Cost Accountants *[Firm Registration No. 000010]* were reappointed as your Company's Cost Auditor to conduct Cost Audit for the FY 2023-24. + The cost accounts and records of your Company are duly prepared and maintained by your Company as required under Section 148(1) of the Act pertaining to cost audit.
Internal Auditors	+ M/s. Ernst & Young LLP were appointed as your Company's Internal Auditor to conduct Internal Audit of your Company for the FY 2023-24. + Internal Audit Reports are placed on half-yearly basis before the Audit Committee for their review.

Q. Corporate Governance

Your Company is committed to maintain the highest standards of Corporate Governance and adheres to the Corporate Governance requirements set out by the SEBI. The Corporate Governance Report as stipulated under the SEBI Listing Regulations forms part of this Integrated Annual Report.

Your Company has duly complied with the Corporate Governance requirements as set out under Chapter IV of the SEBI Listing Regulations and M/s. Dilip Bharadiya & Associates, Company Secretaries, vide their certificate, have confirmed that your Company is and has been compliant with the conditions stipulated in the Chapter IV of the SEBI Listing Regulations. The said certificate is annexed as **Annexure VIII** to this Report.

R. Particulars of Loans, Guarantees and Investments

Details of Loans, guarantees and investments covered under Section 186 of the Act read with the Companies *(Meetings of Board and its Powers)* Rules, 2014, as on 31 March 2024, forms part of the Notes to the financial statements provided in this Integrated Annual Report.

S. Extract of Annual Return

Pursuant to Section 92(3) read with Section 134(3)(a) of the Act, the Annual Return of the Company in Form MGT-7 for FY 2023-24, is available on the Company's website at www.hindalco.com

T. Disclosures Pursuant to the "Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013"

The Company has Zero Tolerance towards sexual harassment at the workplace. A detailed POSH Policy is in place as per the requirements of The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 *("POSH Act")*.

The POSH Policy of the Company is available on the Company's website at www.hindalco.com and all employees (permanent, contractual, temporary, trainees) as defined under the Act are covered by this Policy.

The objective of this policy is to provide an effective complaint redressal mechanism in case of any occurrence of sexual harassment.

The Company has also set up an Internal Complaints (IC) Committee at all locations, duly constituted in compliance with the provisions of the POSH Act. Additionally, the Company conducts interactive sessions for all employees to build awareness about the policy and the provisions of the POSH Act.

During the year under review, the Company received ten (10) complaints of sexual harassment. Of these, six (6) complaints were investigated and resolved as per the provisions of the POSH Act, and investigations are continuing for the remaining four (4) complaints.

U. Awards & Recognitions:

HINDALCO

Hindalco is the Most Sustainable Aluminium Company in the world 4th year in a row as per S&P's DJSI ranking

Hindalco in Top 10 of the 'Great Place to Work' list in Health and Wellness for 2024

Hindalco recognised among India's Best Workplaces™ in Manufacturing 2024 in Top 50

Hindalco won Energy Transition Changemaker Award at COP28 held in Dubai

UNITS & MINES

- Muri won Gold at National Awards for Manufacturing Competitiveness;
- Muri won National Energy Conservation Award 2023;
- Aditya won India Manufacturing Excellence Award (Platinum certificate of merit in manufacturing) from Frost & Sullivan;
- Aditya won F&S Sustainability 4.0 award (Platinum certificate of merit in sustainability) from Frost & Sullivan;
- Aditya won Platinum award in 'Best Application and uses of Digitalisation & Technology for Safety' from CII National EHS Circle;
- Aditya won Energy Management Leadership award from Clean Energy Ministerial platform of United Nations Industrial Development Organisation for leadership in energy management – 2023;
- Aditya won State Pollution Control Excellence Award 2023 from Govt of Odisha – OSPCB;
- Aditya won UNDP Mahatma Award for Biodiversity management from Mahatma Foundation;
- Aditya won Performance Excellence Award for Best Manufacturing Practices at the IMC Ramkrishna Bajaj National Quality Awards (RBNQA);
- Aditya's Five Quality Circle Teams won Gold Award in ICCQC'2023 – International convention on Quality Control Circles, Beijing – China – Nov'2023;
- Aditya's Highest Export in 2020-21 & 2021-22 – Award of Certificate of Excellence for the year 2020-21 by Directorate of Export Promotion and Marketing, GOI;
- Samri & Bagru Bauxite Mines awarded International Safety Award by British Safety Council, UK;
- Bagru Mines won Gold award in National Award for Manufacturing Challenges assessment 2023 by International Research Institute for Manufacturing, India;
- Samri Bauxite mines won Platinum award in sustainability excellence by FAME National award 2023;
- Belagavi won CII National Award for Environment Best Practices 2023 for Most Innovative Environment Project;
- Belagavi won Unnatha Suraksha Puraskara Safety Awards 2023 by National Safety Council, Karnataka Chapter;
- Belagavi won India Manufacturing Excellence Award (IMEA) – 2023- Gold Award (861/1200);
- Belagavi won Gold Award in F&S – Indian Manufacturing Excellence Award (IMEA) and 'Leaders Award' in F&S Sustainability 4.0;
- Belagavi won Gold in India Green Manufacturing Challenge 2023 (IGMC) from International Research Institute for Manufacturing-India.

V. Other Disclosures:

In terms of the applicable provisions of the Act and the SEBI Listing Regulations, your Company additionally discloses that, during the year under review:

- There was no change in the nature of business of your Company;
- It has not accepted any fixed deposits from the public falling under Section 73 of the Act read with the Companies (Acceptance of Deposits) Rules, 2014. Thus, as on 31 March 2024, there were no deposits which were unpaid or unclaimed and due for repayment, hence, there has been no default in repayment of deposits or payment of interest thereon;
- It has not issued any shares with differential voting rights;
- It has not issued any sweat equity shares;
- The following matter is pending before the Hon'ble National Company Law Appellate Tribunal *("NCLAT")* under Insolvency and Bankruptcy Code, 2016, wherein the Company has been arrayed as Respondent.

The details are mentioned below:

On 17 August 2021, PSA Nitrogen Limited filed Company Petition bearing no. C.P.(IB)-4082(MB)/2019 *("Company Petition")* before the Hon'ble National Company Law Tribunal *("NCLT")*, Mumbai, under Section 9 of the Insolvency and Bankruptcy Code, 2016, arraying the Company as a Respondent. This petition was dismissed for non-prosecution vide order of the NCLT dated 30 November 2021. Subsequently, two restoration applications filed by PSA Nitrogen Limited were also dismissed by orders of the NCLT dated 24 August 2022 and 24 January 2023.

PSA Nitrogen Limited then filed the present appeal [Company Appeal (AT) (Insolvency) No. 658 of 2023] before the Hon'ble NCLAT, challenging the dismissal of the restoration applications. This appeal is currently pending before the Hon'ble NCLAT.

- There was no instance of one-time settlement with any bank or financial institution;
- There were no material changes and commitments affecting the financial position of your Company between end of financial year and the date of report;
- There is no plan to revise the financial statements or Directors' Report in respect of any previous financial year;
- There are no significant and material orders passed by the regulators or courts or tribunals impacting the going concern status and your Company's operations in future;
- There were no frauds reported by the Auditors u/s 143(12) of the Act.

Appreciation

We would like to record by gratitude and appreciation to all our the stakeholders', including the Central and State Government Authorities, Stock Exchanges, Financial Institutions, Analysts, Advisors, Local Communities, Customers, Vendors, Business Partners, Shareholders, and Investors forming part of the Hindalco family for their continued support during the year. Your faith and vote of confidence hold in good stead, and motivate us in pursuing greater opportunities, responsible growth and enhanced delivery on our strategy. Let us also take this opportunity to thank our employees, whose enthusiasm, energy, and zeal, help us progress along our vision. The contribution our people make is the base on which we build further and is integral to Hindalco's high performing culture.

For and on behalf of the Board

Satish Pai
Managing Director
DIN: 06646758

Kailash Nath Bhandari
Independent Director
DIN: 00026078

Place: Mumbai
Dated: 15 July 2024

Annexure I

INFORMATION: REMUNERATION OF DIRECTORS & EMPLOYEES

Details pertaining to remuneration as required under Section 197(12) of the Act & Rule 5(1) of Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014

a) **Total number of permanent employees as on 31st March, 2024 :** 22,267 *(PY:21,440)*

b) **Median remuneration of employees for FY 2023-24:** ₹ 7,97,038 *(PY: ₹ 7,33,979)*

c) **Percentage increase in the median remuneration of employees:** 8.58% *(PY:11.72%)*

d) **Average percentage increase in the salaries of employees other than the managerial personnel:** 8.6% *(PY:11.6%)*

e) **Average percentage increase in salaries of the managerial personnel:** (-10.76%) *[PY:(-15.19%)]*

f) **Ratio of the remuneration of each director to the median remuneration of the employees; and percentage increase/ (decrease) in remuneration of each Director and Key Managerial Personnel (KMPs):**

Sr. No.	Name	Designation	Increase / (decrease)%	Ratio to median remuneration
Non- Executive Directors(1) (Including Independent)				
1.	Mr. Kumar Mangalam Birla	Chairman & Non- Executive Director	(9.52)	0.24
2.	Mrs. Rajashree Birla	Non- Executive Director	2.20	37.29
3.	Mr. Askaran Agarwala	Non- Executive Director	35.75	7.23
4.	Mr. Kailash Nath Bhandari	Independent Director	(9.52)	7.60
5.	Ms. Alka Bharucha	Independent Director	(0.76)	4.89
6.	Mr. Yazdi Dandiwala	Independent Director	(9.96)	7.44
7.	Mr. Vikas Balia	Independent Director	12.48	7.37
8.	Mr. Sudhir Mital	Independent Director	26.21	4.89
9.	Mr. Anant Maheshwari (2)	Independent Director	-	-
Key Managerial Personnel (5)				
10.	Mr. Satish Pai (3) (4)	Managing Director	(14.65)	397.62
11.	Mr. Praveen Kumar Maheshwari (3)	Whole-time Director & Chief Financial Officer	7.88	104.97
12.	Ms. Geetika Anand (2)	Company Secretary	-	-

(1) Remuneration paid comprises of commission and sitting fees paid for attending the meetings of the Board and/or its Committees.

(2) The remuneration paid is for part of FY 2024 and FY 2023, respectively and is not comparable. Hence, the percentage increase/ decrease in remuneration and the ratio to median remuneration for the year under review are not stated.

(3) Receives an annual fee of US$ 1,50,000 [US Dollar One Lakh Fifty Thousand only] in the financial year 2024, as they hold Directorships in Novelis Inc, wholly owned subsidiary of the Company.

(4) Remuneration excludes perquisites towards exercise of ESOPs during the year and is paid considering responsibilities of business operations of both Hindalco and Novelis Inc. The variable component constitutes more than 50% of total remuneration for the year.

(5) As on 31st March, 2024, Mr. Pai's Shareholding multiple of Base Salary is 5.93, while Mr. Maheshwari's is 2.17. Ms. Anand, however, is exempt from this calculation as she does not hold any shares in the Company.

g) **Affirmation that the remuneration is as per the Remuneration Policy of the Company:**

It is hereby affirmed that the remuneration paid to Directors, KMPs and senior management is as per the Executive Remuneration Philosophy / Policy of the Company.

Annexure II

Dividend Distribution Policy

1. Introduction

1.1. As per the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, as amended, the Company is required to formulate and disclose its Dividend Distribution Policy. Accordingly, the Board of Directors of the Company ("the Board") has approved this Dividend Distribution Policy for the Company at its meeting held on 13th February, 2024 as amended on 22nd February, 2021 and reviewed on 13th February, 2024.

1.2. The objective of this policy is to provide clarity to stakeholders on the dividend distribution framework to be adopted by the Company. The Board of Directors shall recommend dividend in compliance with this policy, the provisions of the Companies Act, 2013 and Rules made thereunder and other applicable legal provisions.

2. Target Dividend Payout

2.1. Dividend will be declared for any financial year out of the profits of the Company for that year or out of the profits of the Company for any previous financial year or years arrived at after providing for depreciation and remaining undistributed, or out of both;

2.2. The Board will endeavor to distribute a dividend in the range of 8% to 10% of the Free Cash Flow at Hindalco Consolidated Level (defined as Cash Flow after meeting interest, tax, other statutory dues, maintenance capital expenditure and working capital requirements at Hindalco consolidated level but before considering strategic capital expenditure and debt repayments/pre-payments) of the relevant year subject to compliances of the Companies Act, 2013 and all other applicable Regulations.

3. Factors to be considered for Dividend Payout

The Board will consider various internal and external factors, including but not limited to the following before making any recommendation for dividends:

- Free Cash Flow of the relevant year (as defined above)
- Stability of earnings
- Future capital expenditure, inorganic growth plans and reinvestment opportunities
- Industry outlook and stage of business cycle for underlying businesses
- Leverage profile and capital adequacy metrics
- Overall economic/regulatory environment
- Contingent liabilities
- Past dividend trends
- Buyback of shares or any such alternate profit distribution measure
- Any other contingency plans.

4. Review

This policy would be subject to revision/amendment on a periodic basis, as may be necessary.

5. Disclosure

This policy (as amended from time to time) will be available on the Company's website and in the Integrated Annual Report.

Annexure III

"Form AOC-1"

Statement containing salient features of the financial statement of subsidiaries, associates and joint ventures

Part A : Subsidiaries

Figures Indian Rupee (INR) in Crore & Foreign Currency (FC) in Million

Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debenture, Bonds & Others	Turnover/ Revenues	Profit/ (Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/ (Loss) after Tax	Proposed Dividend	% of Share Holding
Minerals and Minerals Limited	India	INR	0.05	24.52	50.93	26.36	-	70.31	6.25	1.13	-	5.12	-	100
Renuka Investments and Finance Limited	India	INR	34.25	225.02	267.15	7.88	82.65	1.60	1.29	0.30	-	0.99	-	100
Renukeshwar Investments and Finance Limited	India	INR	4.80	145.65	150.86	0.42	13.58	-	9.89	2.49	-	7.40	-	100
Suvas Holdings Limited	India	INR	29.93	0.39	33.84	3.52	0.83	3.20	0.11	0.05	-	0.06	-	74
Utkal Alumina International Limited	India	INR	6,251.48	6,202.35	14,198.24	1,744.41	1,310.06	6,490.24	2,553.83	883.17	-	1,670.66	-	100
Hindalco-Almex Aerospace Limited	India	INR	88.56	17.74	113.18	6.88	18.18	81.75	(0.82)	0.03	-	(0.85)	-	97
Lucknow Finance Company Limited	India	INR	9.90	14.28	25.41	1.23	16.89	-	29.54	48.81	-	246.60	-	100
Dahej Harbour and Infrastructure Limited	India	INR	50.00	75.47	142.48	17.01	27.94	49.19	19.60	3.56	-	16.04	-	100
East Coast Bauxite Mining Co.Pvt.Ltd.	India	INR	0.01	(0.06)	0.01	0.06	-	-	(0.00)	-	-	(0.00)	-	74
Utkal Alumina Social Welfare Foundation	India	INR	0.10	0.54	0.78	0.14	-	-	0.24	-	-	0.24	-	100
Kosala Livelihood and Social Foundation	India	INR	7.00	(4.18)	3.69	0.87	-	0.34	2.22	0.01	-	(2.21)	-	100
Birla Copper ASOJ Private Limited (Erstwhile Ryker Base Pvt Ltd)	India	INR	52.02	56.88	296.64	184.46	-	445.58	34.23	12.45	-	21.78	-	100
A.V. Minerals (Netherlands) N.V.	Netherlands	INR	12,755.02	(1,340.70)	11,415.46	1.14	10,566.96	1.63	(1.48)	-	-	(1.48)	-	100
		USD	1,529.96	(160.82)	1,369.28	0.14	1,267.50	0.20	(0.18)	-	-	(0.18)	-	
Novelis Inc.	Canada	INR	10,704.52	6,811.21	25,377.37	7,861.65	-	5,590.70	3,503.30	172.62	(1.12)	3,329.56	-	100
		USD	1,284.00	817.00	3,044.00	943.00	-	675.39	423.22	20.85	(0.14)	402.23	-	
4260848 Canada Inc.	Canada	INR	1,022.46	(696.67)	335.51	9.72	-	-	219.82	15.08	-	204.74	-	100
		USD	122.64	(83.57)	40.24	1.17	-	-	26.56	1.82	-	24.73	-	
4260856 Canada Inc.	Canada	INR	1,533.73	(1,057.37)	490.87	14.51	-	-	327.97	22.51	-	305.47	-	100
		USD	183.97	(126.83)	58.88	1.74	-	-	39.62	2.72	-	36.90	-	
Novelis South America Holdings LLC	USA	INR	0.01	(0.01)	-	-	-	-	-	-	-	-	-	100
		USD	0.00	(0.00)	-	-	-	-	-	-	-	-	-	
Novelis Corporation	USA	INR	-	(3,017.94)	57,282.50	60,300.44	-	49,120.34	711.89	(405.61)	-	1,117.50	-	100
		USD	-	(362.00)	6,871.00	7,233.00	-	5,934.00	86.00	(49.00)	-	135.00	-	
Novelis de Mexico SA de CV	Mexico	INR	0.06	(0.06)	-	-	-	-	-	-	-	-	-	100
		USD	0.01	(0.01)	-	-	-	-	-	-	-	-	-	
Novelis do Brasil Ltda.	Brazil	INR	1,593.28	5,472.53	16,334.13	9,268.32	-	19,984.21	2,275.59	655.91	-	1,619.68	-	100
		BRL	958.53	3,292.31	9,826.71	5,575.88	-	11,908.05	1,355.96	390.84	-	965.13	-	
Novelis Korea Limited	South Korea	INR	2,581.52	1,763.51	11,682.81	7,337.79	-	18,098.98	1,133.13	225.07	-	908.06	-	100
		KRW	416,777.00	284,712.00	1,886,150.00	1,184,661.00	-	2,922,018.00	182,940.00	36,337.00	-	146,603.00	-	
Novelis UK Ltd	United Kingdom	INR	1,536.77	1,707.36	4,153.31	909.17	-	4,176.51	258.68	71.75	-	186.93	-	100
		GBP	146.09	162.31	394.82	86.43	-	401.39	24.86	6.90	-	17.97	-	
Novelis Services Limited	United Kingdom	INR	1,675.79	3,815.61	5,494.93	3.53	-	329.06	402.30	61.76	-	340.54	-	100
		USD	201.01	457.68	659.11	0.42	-	39.75	48.60	7.46	-	41.14	-	
Novelis Deutschland GmbH	Germany	INR	3,065.48	40.22	10,449.02	7,343.32	-	27,807.52	298.22	0.07	-	298.15	-	100
		EUR	340.80	4.47	1,161.64	816.37	-	3,096.97	33.21	0.01	-	33.21	-	
Novelis Aluminium Beteiligungs GmbH	Germany	INR	-	-	-	-	-	-	-	-	-	-	-	100
		EUR	-	-	-	-	-	-	-	-	-	-	-	
Novelis Switzerland SA	Switzerland	INR	46.20	4,524.15	5,875.07	1,304.72	-	7,381.14	274.24	44.99	-	229.26	-	100
		CHF	5.00	489.60	635.79	141.19	-	789.64	29.34	4.81	-	24.53	-	
Novelis Italia SPA	Italy	INR	484.44	147.92	1,323.28	690.92	-	2,094.99	7.49	(0.28)	-	7.77	-	100
		EUR	53.86	16.44	147.11	76.81	-	233.32	0.83	(0.03)	-	0.87	-	
Novelis Aluminium Holding Unlimited Company	Ireland	INR	1,952.79	353.16	9,384.12	7,078.17	-	-	48.48	327.02	-	(278.55)	-	100
		EUR	217.10	39.26	1,043.25	786.90	-	-	5.40	36.42	-	(31.02)	-	
Novelis PAE SAS	France	INR	36.34	190.89	450.00	222.77	-	350.32	31.79	8.24	-	23.55	-	100
		EUR	4.04	21.22	50.03	24.77	-	39.02	3.54	0.92	-	2.62	-	
Novelis Europe Holdings Limited	United Kingdom	INR	409.31	1,425.25	6,274.89	4,440.32	-	-	(155.62)	-	-	(155.62)	-	100
		USD	49.10	170.96	752.67	532.61	-	-	(18.80)	-	-	(18.80)	-	
Novelis AG	Switzerland	INR	5.96	1,762.20	9,563.53	7,795.37	-	9,276.73	307.71	54.99	-	252.72	-	100
		EUR	0.66	195.91	1,063.20	866.63	-	1,033.16	34.27	6.12	-	28.15	-	
Novelis Holdings Inc.	USA	INR	0.00	(180.23)	13,367.93	13,548.16	-	-	(940.23)	(242.70)	-	(697.54)	-	100
		USD	0.00	(21.62)	1,603.48	1,625.09	-	-	(113.59)	(29.32)	-	(84.27)	-	
8018227 Canada Inc.	Canada	INR	-	(584.65)	2,114.76	2,699.41	-	-	172.55	17.65	-	154.90	-	100
		USD	-	(70.13)	253.66	323.79	-	-	20.85	2.13	-	18.71	-	
Novelis Sheet Ingot GmbH	Germany	INR	179.90	-	5,137.44	4,957.54	-	1,083.51	116.83	-	-	116.83	-	100
		EUR	20.00	-	571.14	551.14	-	120.67	13.01	-	-	13.01	-	
Novelis MEA Ltd	UAE, Dubai	INR	0.42	274.12	1,633.57	1,359.03	-	5,087.31	264.32	-	-	264.32	-	100
		USD	0.05	32.88	195.95	163.01	-	614.57	31.93	-	-	31.93	-	
Novelis (Shanghai) Aluminum Trading Company	China	INR	25.56	15.49	65.52	24.46	-	39.32	2.39	0.94	-	1.45	-	100
		CNY	22.14	13.42	56.75	21.19	-	34.04	2.07	0.81	-	1.26	-	
Novelis (China) Aluminum Products Co., Ltd.	China	INR	978.21	1,531.14	4,495.46	1,986.11	-	4,152.07	304.22	111.33	-	192.90	-	100
		CNY	847.31	1,326.25	3,893.89	1,720.34	-	3,594.13	263.34	96.37	-	166.98	-	
Novelis Vietnam Company Limited	Vietnam	INR	7.00	26.48	33.63	0.16	-	-	8.71	0.93	-	7.78	-	100
		VND	20,820.00	78,777.99	100,063.44	465.45	-	-	25,904.24	2,758.21	-	23,146.03	-	
Novelis Services (North America) Inc.	USA	INR	-	-	0.21	0.21	-	-	-	-	-	-	-	100
		USD	-	-	0.02	0.02	-	-	-	-	-	-	-	
Novelis Services (Europe) Inc.	USA	INR	-	-	-	-	-	-	-	-	-	-	-	100
		USD	-	-	-	-	-	-	-	-	-	-	-	
Brecha Energetica Ltda	Brazil	INR	0.00	0.00	0.00	-	-	-	-	-	-	-	-	100
		BRL	0.00	0.00	0.00	-	-	-	-	-	-	-	-	
Novelis Global Employment Organization, Inc.	USA	INR	50.64	(29.14)	49.04	27.54	-	-	(17.66)	6.22	-	(23.89)	-	100
		USD	6.07	(3.50)	5.88	3.30	-	-	(2.13)	0.75	-	(2.89)	-	
Novelis Deutschland Holding GmbH	Germany	INR	4,537.69	(922.67)	3,828.51	213.50	-	2.44	528.66	0.25	-	528.41	-	100
		EUR	504.47	(102.58)	425.62	23.73	-	0.27	58.88	0.03	-	58.85	-	
Novelis Koblenz GmbH	Germany	INR	1,271.17	-	4,124.47	2,853.29	-	6,713.02	527.56	-	-	527.56	-	100
		EUR	141.32	-	458.53	317.21	-	747.64	58.76	-	-	58.76	-	
Novelis Casthouse Germany GmbH	Germany	INR	396.80	-	891.17	494.38	-	2,313.64	(50.37)	-	-	(50.37)	-	100
		EUR	44.11	-	99.07	54.96	-	257.67	(5.61)	-	-	(5.61)	-	
Novelis ALR Aluminum Holdings Corporation	USA	INR	10,919.38	(593.72)	17,748.36	7,422.70	-	-	(518.81)	(112.40)	-	(406.41)	-	100
		USD	1,309.77	(71.22)	2,128.91	890.35	-	-	(62.68)	(13.58)	-	(49.10)	-	
Novelis ALR International, Inc.	USA	INR	19,875.04	304.01	36,248.11	16,069.05	-	-	342.46	119.32	-	223.14	-	100
		USD	2,384.00	36.47	4,347.94	1,927.47	-	-	41.37	14.41	-	26.96	-	

Annexure III

Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debenture, Bonds & Others	Turnover/ Revenues	Profit/ (Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/ (Loss) after Tax	Proposed Dividend	% of Share Holding
Novelis ALR Rolled Products, Inc.	USA	INR	13,285.66	(3,955.17)	14,385.96	5,055.47	-	4,471.78	(832.12)	234.99	0.50	(1,066.61)	-	100
		USD	1,593.61	(474.42)	1,725.59	606.40	-	540.22	(100.52)	28.39	0.06	(128.85)	-	
Novelis ALR Asset Management Corporation	USA	INR	9.20	17.57	27.64	0.88	-	-	4.24	(0.62)	-	4.86	-	100
		USD	1.10	2.11	3.32	0.11	-	-	0.51	(0.08)	-	0.59	-	
Novelis ALR Rolled Products, LLC	USA	INR	2,562.84	2,757.51	9,190.74	3,870.39	-	4,642.87	1,327.31	-	-	1,327.31	-	100
		USD	307.41	330.76	1,102.42	464.25	-	560.88	160.35	-	-	160.35	-	
Novelis ALR Rolled Products Sales Corporation	USA	INR	0.03	(18.27)	120.17	138.42	-	-	(0.22)	(0.05)	-	(0.17)	-	100
		USD	0.00	(2.19)	14.41	16.60	-	-	(0.03)	(0.01)	-	(0.02)	-	
Novelis ALR Recycling of Ohio, LLC	USA	INR	201.95	12.19	1,658.27	1,444.13	-	-	(351.04)	-	-	(351.04)	-	100
		USD	24.22	1.46	198.91	173.22	-	-	(42.41)	-	-	(42.41)	-	
Novelis ALR Aluminum LLC	USA	INR	1,784.45	1,902.08	5,436.63	1,750.10	-	3,812.31	360.80	-	-	360.80	-	100
		USD	214.04	228.15	652.12	209.92	-	460.55	43.59	-	-	43.59	-	
Novelis ALR Aluminum-Alabama LLC	USA	INR	2.68	(10.30)	50.58	58.21	-	-	(2.28)	-	-	(2.28)	-	100
		USD	0.32	(1.24)	6.07	6.98	-	-	(0.28)	-	-	(0.28)	-	
Aleris Holding Canada ULC	Canada, Nova Scotia	INR	-	-	-	-	-	-	-	-	-	-	-	-
		USD	-	-	-	-	-	-	-	-	-	-	-	
Novelis Netherlands B.V.	Netherlands	INR	6,888.56	(2,808.85)	4,092.39	12.69	-	-	70.81	18.39	-	52.42	-	100
		EUR	765.82	(312.27)	454.96	1.41	-	-	7.89	2.05	-	5.84	-	
Aleris Switzerland GmbH	Switzerland	INR	0.18	106.53	112.21	5.49	-	-	(3.01)	-	-	(3.01)	-	100
		CHF	0.02	11.53	12.14	0.59	-	-	(0.32)	-	-	(0.32)	-	
Aleris Aluminum UK Limited	United Kingdom	INR	-	-	-	-	-	-	-	-	-	-	-	-
		GBP	-	-	-	-	-	-	-	-	-	-	-	
Aleris Aluminum Japan, Ltd.	Japan	INR	0.66	1.01	2.19	0.52	-	1.67	0.09	0.07	-	0.02	-	100
		JPY	12.00	18.26	39.76	9.50	-	29.19	1.50	1.19	-	0.30	-	
Aleris Asia Pacific International (Barbados) Ltd.	Barbados	INR	45.24	(22.77)	23.24	0.77	-	0.02	(0.02)	-	-	(0.02)	-	100
		EUR	5.03	(2.53)	2.58	0.09	-	0.00	(0.00)	-	-	(0.00)	-	
Aleris (Shanghai) Trading Co., Ltd.	China	INR	-	-	-	-	-	-	-	-	-	-	-	-
		CNY	-	-	-	-	-	-	-	-	-	-	-	
Aleris Asia Pacific Limited	Hong Kong	INR	4,463.26	(1,810.33)	2,668.27	15.34	-	18.02	17.72	-	-	17.72	-	100
		USD	535.36	(217.15)	320.06	1.84	-	2.18	2.14	-	-	2.14	-	
Novelis Aluminum (Zhenjiang) Co., Ltd.	China	INR	3,716.74	(1,456.59)	3,729.16	1,469.02	-	1,963.07	228.06	52.83	-	175.23	-	100
		CNY	3,219.38	(1,261.68)	3,230.14	1,272.44	-	1,699.28	197.42	45.73	-	151.68	-	
Novelis Ventures LLC	USA	INR	31.26	6.84	68.11	30.01	-	-	6.79	-	-	6.79	-	100
		USD	3.75	0.82	8.17	3.60	-	-	0.82	-	-	0.82	-	
Hindalco Kabushiki Kaisha	Japan	INR	2.30	(2.60)	18.37	18.67	-	16.70	(1.14)	0.01	-	(0.00)	-	100
		JPY	41.67	-47.21	333.67	339.21	0.00	296.68	-19.55	0.18	0.00	-19.73	-	-

Note:

Sr. No. The names of companies which have become or ceased to be its Subsidiaries, joint ventures or associate companies during the year;

1. Aleris (Shanghai) Trading Co., Ltd. (Subsidiary of Novelis Inc.) was dissolved on 1st December, 2023.
2. Aleris Aluminum UK Limited (Subsidiary of Novelis Inc.) was dissolved on 30th January, 2024.
3. Aleris Holding Canada ULC (Subsidiary of Novelis Inc.) was dissolved on 13th February, 2024.
4. Ayana Renewable Power Four Private Limited became Associate on 5th February, 2024.
5. Big Blue Technologies Inc. (Associate of Novelis Inc.) became Associate on 11th October, 2023.
6. Deutsche Aluminium Verpackung Recycling GmbH (Associate of Novelis Inc.) was dissolved on 13th July, 2023.
7. Novelis Aluminium Beteiligungs GmbH was dissolved on 13th April, 2023.
8. Exchange Rate used:

From Currency	To currency	Average Sport Rate for the year	Closing Rate for March 31, 2024
BRL	INR	16.78	16.62
CHF	INR	93.48	92.41
CNY	INR	11.55	11.54
EUR	INR	89.79	89.95
GBP	INR	104.05	105.19
JPY	INR	0.57	0.55
USD	INR	82.78	83.37
KRW	USD	0.062	0.062
VND	USD	0.003	0.003
BRL	USD	0.203	0.199
CHF	USD	1.129	1.108
CNY	USD	0.140	0.138
EUR	USD	1.085	1.079
GBP	USD	1.257	1.262
JPY	USD	0.007	0.007

Annexure III

Part B

Sr. No.	Name of Associates / Joint Ventures	Shares of Associate/Joint Ventures held by the company on the year end				Profit/Loss for the year			
		Latest Audited Balance Sheet Date	Number	Amount of investment (Carrying Value) in Associates / Joint Venture (₹ in crore)	Extent of Holding% attributable	Networth to Shareholding as per latest audited balance sheet (₹ in crore)	Considered in consolidation (₹ in crore)	Not considered in consolidation	Description of how there is significant influence
Associates									
1	Aditya Birla Renewable Subsidiary Limited (ABRSL)	31-Mar-24	68,95,200	6.90	26.00%	27.4499	7.14		Note A
2	Aditya Birla Renewable Utkal Limited (ABRUL)	31-Mar-24	12,74,000	1.27	26.00%	5.5354	1.44		Note A
3	Aditya Birla Renewable Solar Limited (ABRSolar)	31-Mar-24	4,12,10,424	41.21	26.00%	160.4245	41.71		Note A
4	Aditya Birla Science and Technology Company Private Limited	31-Mar-24	98,00,000	9.80	49.00%	0.41	0.05		Note A
5	Ayana Renewable power four Private Limited	31-Mar-24	81,25,000	8.13	26.00%	7.71	(0.25)		
6	**Associates of Novelis Inc. @**	31-Mar-21	2,89,130	2,317.33	-	527.25	57.35		
Joint Ventures									
1	Hydromine Global Minerals (GMBH) Limited	31-Mar-24	66,562	-	45.00	-	-		Note A
2	MNH Shakti Limited	31-Mar-24	1,27,65,000	12.77	15.00	6.45	0.19		Note A
Joint Operations									
1	Mahan Coal Limited	31-Mar-24	3,22,50,000	32.25	50.00	11.35	(0.01)		Note A
2	Tubed Coal Mines Limited	31-Mar-24	1,52,96,700	15.30	60.00	1.69	0.00		Note A
	Joint Operations of Novelis Inc. @								
@ - Associates of Novelis Inc.									
	France Aluminum Recyclage SA	31-Dec-23	3,000	0.40	20%	0.16	0.03	Equity	
	Deutsche Aluminium Verpackung Recycling GmbH	31-Dec-21	1	-	30%	-	-	Equity	
	Big Blue Technologies Inc.		2,81,088	4.00	7%	9.94	(4.53)	Equity	
@ -Joint Operations of Novelis Inc.									
	Aluminium Norf GmbH	31-Dec-23	1	276.15	50%	253.03	5.60	Equity	
	Logan Aluminum Inc.	31-Mar-24	40	0.00	40%	45.47	(1.82)	Consolidated	
	Ulsan Aluminum Ltd.	31-Mar-24	5,000	2,036.78	50%	218.65	58.07	Equity	
	AluInfra Services SA	31-Dec-22	5,000	27.03	50%	1.19	0.30	Equ ity	

Note A There is significant influence due to percentage holding of share capital

Annexure IV

Annual Report on Corporate Social Responsibility Activities for the financial year 2023-24

[Pursuant to Section 135 of the Companies Act, 2013 and the Companies (Corporate Social Responsibility Policy) Rules, 2014]

1. Brief Outline on CSR Policy of the Company:

For every Company in the Aditya Birla Group, reaching out to underserved communities is a part of our DNA. We believe in the trusteeship concept. This entails transcending business interest and grappling with the "quality of life" challenges that underserved communities face and working towards making meaningful differences to them.

Our vision is – "to actively contribute to the social and economic development of the communities in which we operate and beyond. In sync with the UN SDGs, our endeavor is to lift the burden of poverty weighing down the underserved and foster inclusive growth. In doing so, build a better, sustainable way of life for the weaker, marginalized sections of society and enrich lives. Be a force for good" (Mrs. Rajashree Birla, Chairperson, Aditya Birla Centre for Community Initiatives and Rural development).

2. Composition of CSR Committee:

Sr. No.	Name of Director	Designation / Nature of Directorship	Number of meetings of CSR committee held during the year	Number of meetings of CSR Committee attended during the year
1	Mrs. Rajashree Birla	Chairperson/Non-Executive Director	1	1
2	Mr. Askaran Agarwala	Member/Non-Executive Director	1	1
3	Mr. Satish Pai	Member/Managing Director	1	-
4	Mr. Yazdi Dandiwala	Member/Independent Director	1	1

Permanent Invitee: Dr. (Mrs.) Pragnya Ram, Group Executive President, CSR, Legacy, Documentation & Archives
Mr. Sudhir Mital was appointed as a member w.e.f. 1st May, 2024.

3. The web-link(s) where Composition of CSR Committee, CSR Policy and CSR Projects approved by the Board are disclosed on the website of the company.:

a)	The composition of the CSR Committee:	www. hindalco.com
b)	CSR Policy:	
c)	CSR Projects as approved by the Board:	

4. The executive summary along with web-link(s) of Impact Assessment of CSR Projects carried out in pursuance of sub-rule (3) of rule 8, if applicable.:

No impact study has been carried out in this financial year.

5. (a) Average net profit of the company as per sub-section (5) of section 135: ₹ 4,726.02 Crore

(b) Two percent of average net profit of the company as per sub-section (5) of section 135: ₹ 94.52 Crore

(c) Surplus arising out of the CSR Projects or programmes or activities of the previous financial years. Nil

(d) Amount required to be set-off for the financial year, if any: Nil

(e) Total CSR obligation for the financial year [(b)+(c)-(d)]: ₹ 94.52 Crore

6. (a) Amount spent on CSR Projects (both Ongoing Project and other than Ongoing Project): ₹ 47.54 Crore

(b) Amount spent in Administrative Overheads: ₹ 0.32 Crore

Annexure IV

(c) Amount spent on Impact Assessment, if applicable: Nil

(d) Total amount spent for the Financial Year [(a)+(b)+(c)]: ₹ 47.86 Crore

(e) CSR amount spent/unspent for the financial year:

Total Amount Spent for the Financial Year. (in ₹ crore)	Amount Unspent (In ₹ Crore)				
	Total Amount transferred to Unspent CSR Account as per sub-section (6) of section 135.		Amount transferred to any fund specified under Schedule VII as per second proviso to sub-section (5) of section 135.		
	Amount	Date of Transfer	Name of the Fund	Amount	Date of Transfer
47.86	47	30th April, 2024	-	-	-

(f) Excess amount for setoff if any: Nil

7. Details of Unspent Corporate Social Responsibility amount for the preceding three Financial Years:

Sr. No.	Preceding Financial Year (s)	Amount transferred to Unspent CSR Account under subsection (6) of section 135 (in ₹ crore)	Balance Amount in Unspent CSR Account under sub-section (6) of section 135 (in ₹ crore)	Amount spent in Reporting Financial Year (in ₹ crore)	Amount transferred to a Fund as specified under Schedule VII as per second proviso to sub-section (5) of section 135, if any		Amount remaining to be spent in succeeding financial years (in ₹ crore)	Deficiency, if any
					Amount (in ₹ crore)	Date of Transfer		
1	FY 2020-21	NOT APPLICABLE						
2	FY 2021-22							
3	FY 2022-23	9.5	-	9.5	-	-	-	-
	TOTAL	9.5	-	9.5	-	-	-	-

8. Whether any capital assets have been created or acquired through Corporate Social Responsibility amount spent in the Financial Year: NO

9. Specify the reason(s), if the company has failed to spend two per cent of the average net profit as per subsection (5) of section 135:

As per the Annual CSR Plan for the Financial Year 2023-24, the Company:

a) spent ₹ 47.86 Crore on various CSR projects; and

b) The unspent CSR amount of ₹ 47 Crore is towards ongoing CSR projects which has been transferred to the unspent CSR account and shall be spent as per the annual CSR plan in accordance with the Companies Act, 2013 and Rules made thereunder.

Mr. Satish Pai
(Managing Director)
(DIN: 06646758)

Mrs. Rajashree Birla
(Chairperson, CSR Committee)
(DIN: 00022995)

Date: 15th July, 2024

Annexure V

Disclosure of particulars with respect to Conservation of Energy, Technology Absorption and Foreign Exchange Earnings and Outgo as prescribed under Rule 8(3) of the Companies (Accounts) Rules, 2014

Part A- Conservation of Energy

i) The steps taken on conservation of energy.

a. Multiple training sessions were conducted on Energy Conservation and topics covering Decarbonisation which were attended by a large number of Hindalco employees.

b. Two conferences, one covering Aluminium Smelter and another covering Alumina Refining were organized during the year. This included expert sessions on energy efficiency improvement and decarbonization and were attended by large number of both internal and external participants.

c. Reduction in Aluminium Smelter energy consumption through phased implementation of copper insert collector bar, Copper onsert collector bar, 100% graphitized cathode, installation of solid bus bars etc. During the year, total 177 pots were modified with copper insert collector bar at Aditya, Mahan and Hirakud Smelters, 9 pots were modified with copper onsert collector bar at Aditya and 205 pots were equipped with solid bus bar at Renukoot.

d. Power Plant efficiency improvement by Turbine Generator [TG] revamping, Boiler and TG overhauling, primary air circuit optimization etc.

e. Reduction in Power Plant auxiliary power consumption through various energy conservation initiatives like installing fan less cooling tower, modification in Boiler Feed Pump circuit, Cooling Tower fan blade modification, de-staging of raw water pump and boiler feed pump, process optimisation etc.

f. Revamping and relining of annealing and preheater furnaces, Air scan audit and arresting leakages in compressed air system, and zero air loss drain valve installation in compressors at downstream plants.

g. Reduction in Refinery steam consumption by improving regenerating heater performance, heat recovery from relief vapour improving steam economy and liquor productivity by process optimization, reducing power consumption by intelligence flow control implementation in compressed air system.

h. Rationalization of motor, pump and fan capacity and replacement of inefficient pumps and motors with high efficiency pumps and Energy Efficiency class [IE3] class motors.

i. installation of Variable Frequency Drive [VFD] in variable load application.

j. Compressed Air system efficiency improvement through replacement of inefficient compressors, arresting leakages, process optimization etc.

ii) The steps taken by the company for utilizing alternate sources of energy.

a. Renewable Hybrid {[20 megawatt (MW) Solar] and [21MW Wind]} project for Dahej, Wind Project [21 MW] for Belagavi and additional 2 MW over existing 3 MW Solar at Alupuram were commissioned during the year.

b. Two Battery storage projects were commissioned during the year. Viz 1 MWh Battery Energy Storage System [BESS] with existing Solar plant at Garepalma Coal Mines and 350 kilowatt hour [kWh] BESS along with 390 kilowatt peak [KWp] Solar plant at Bagru Bauxite Mines.

c. Cumulative operating renewable capacity as on 31st March, 2024 is 173 MW.

d. Additional 25 MW of renewable project [10 MW solar for Taloja, 6.5 MW Floating solar at Mahan and 9 MW of Solar at Belagavi] are in advanced stage of implementation.

Annexure V

e. During the year, ₹ 1.1 lakh tons of Biomass has been co-fired along with coal at our Power Plants.

f. During the year, contract has been executed for supply of 100 MW Renewable RTC [round the clock] power to our Aditya Smelter based on Solar-Wind Hybrid with pumped hydro storage-based project. Additionally project for upgradation of Grid connectivity from 220 Kilo volt (KV) to 400 KV is also in progress to improve reliability. Power flow is expected to commence from June,2025.

iii) The capital investment on energy conservation equipment

The Capital investment on Energy conservation equipment and projects for the year was INR ₹ 225.7 crore.

Part B- Technology Absorption

The following efforts made towards technology absorption at Mahan:

- Floating Solar Power Plant of 6.24 MW.
- Installation and commissioning of smart breather in all Regulating/Rectifier, Smelter Aux trafo and Rectifier Aux transformer that will ensure auto regeneration of silica gel.
- Successful insertion of 72 Nos pots with Copper Insert Collector Bar design.

Efforts made towards technology absorption at Renukoot:

- Installed 4 pots with copper onsert collector bar lining design in collaboration with Aditya Birla Science and technology (ABSTC) team to reduce specific energy.
- Installation of fan-less cooling tower which results in the saving of energy consumed by operation of fans, reducing consumption of electricity and on the maintenance of fans and associated gearbox.
- Installation and commissioning of 2 nos. old transformer with latest fire protection system.
- Revamping of old pot controllers for better process control and reliability of overall system.
- Installation of vertical pressure leaf filter known as Diaster filters for filtration of pregnant liquor.

Efforts made towards technology absorption at Aditya Smelter:

- Successful insertion of 47 copper insert collector bar pots in potline in FY24. A total of 316 cumulative pots are now in operation.

Efforts made towards Technological absorption in Hirakud:

- Low-energy copper insert collector bar technology pots were implemented at Hirakud in financial FY'17, which was done in collaboration with ABSTC. In FY23-24 a total of 138 pots were added in both potlines thus making it a total 599 Pots with Copper Collectorbar [CuCB] cumulative.
- 100% Graphitized cathode block technology pots were implemented at Hirakud in financial FY23.In FY23 total of 4 pots, in FY24 total 10 pots were added in the line thus making it 14 Pots with Graphitized cathode block cumulatively.

Efforts made towards Technological absorption in Utkal:

1. The commissioning of the 0.35 million tons per annum [MTPA] Debottlenecking project was completed in October 2023, thereafter production capacity ramping up within 3 days.
2. Through process control optimization achieved ever highest liquor productivity at Average of 91.7 g/l in FY24, which is among the best in the world for identical technology in Alumina Refinery. Despite the project commissioning activity, plant consistently maintained world class Alumina quality.
3. Interstage coolers [ISC] replacement in precipitation-total 4 No's of ISC [EX332-106, 107, 109, 206] replacement has been completed to improve availability and cooling efficiency in the precipitation process.

The benefits derived like product improvement, cost reduction, product development or import substitution

Benefits derived as a result of technology absorption at Mahan:

- **New Product development**
  - (a) Production of high purity grade P0202
  - (b) High temperature low sag [HTLS] Wire rod approval from M/s. PGCIL
- **New process development**
  - (a) Main Compressor operation and monitoring from main control room through remote Operation.
- **Productivity improvement**
  - (a) Volume maximization of high purity premium grade product: P0303 and P0404.
- **Import Substitution**
  - (a) Installation of Emulsion preparation system in Wire rod Mill ["WRM"].
  - (b) Indigenous Development of Star flange of WRM Coiler unit.
  - (c) Development of Strapping machine spares.
- **Sustainability**
  - (a) Bureau of Indian standards (BIS) certification IS:11890 for high purity of Aluminium ingot and IS:4026 for Electrical Conductor (EC) grade Aluminium ingots.
  - (b) Reduction of 205 ton CO_2 emission [by Using of Electric Vehicle (EV) forklift- 07 Nos].

Benefits realised due to the technology absorption at Renukoot:

- Reduction in sp. Energy consumption in these 4 pots by 213-Kilowatt Hour/Ton (Kwh/T) and annualized savings of approx. ₹ 6.7 lac.
- Savings of approx.₹ 4.5 lacs on account of reduced maintenance and energy savings by use of fan-less cooling tower.
- Replacement of old transformers with latest technology has led to a savings of approx. ₹ 52 lacs on account of reduced energy losses.
- Improvement in product quality through use of diaster filter compared to Kelly press filter.
- Ease of operation and improved work safety.

Benefits realised due to the technology absorption at Aditya:

- Increase in current efficiency by ~1.5% and reduction in the Specific energy consumption by ~323 Kilowatt Hour/ Metric Ton (Kwh/MT) due to the copper insert collector bar pots.

Annexure V

- Increase in production of high purity metal grades P0303 and P0404.
- A356.2 alloy customer approval received from M/s. Enkei and M/s. Maxxion wheels.

Benefits realised due to the technology absorption at Hirakud:

- Benefits derived in CuCB pots in terms of power consumption ~ 93 kwh/t.
- Benefits derived for graphitized pots in terms of power consumption ~ 165 kwh/t.

Benefits realised due to the technology absorption at Utkal:

- Utkal achieved lowest energy consumption at 7.51 Giga Joules/Ton (GJ/t) through various energy conservation initiatives, which is among the best in the world for identical technology in Alumina Refinery.
- Lowest ever specific steam consumption at 1.74 Ton of steam /Ton of Hydrate (T/T) through various initiatives.

Import Substitution:

In case of imported technology (imported during the last three years reckoned from the beginning of the financial year)

Technology imported for	Year of import	Has technology been fully absorbed	If not fully absorbed areas where this has not taken place reason thereof and future plant of action
Renukoot Refinery - Diastar Filters for filtration of clarified liquor from Red Area of Alumina Refinery	2024	Yes	NA

Research and development expenses Incurred:

The Company has spent ₹ 30 Crore for Research and Development during the financial year 2023-24. [Last year it was ₹ 33 Crore]

a) Activities related to exports:

Exports Free on Board (FOB) during the year were ₹ 18,018 Crore [Last year it was ₹ 17,319 Crore]

b) Total Foreign Exchange Earnings and Outgo:

Foreign Exchange Outgo ₹ 45,715 Crore [Last Year it was ₹ 37,933 Crore]

Foreign Exchange Earned ₹ 18,018 Crore [Last year it was ₹ 17,319 Crore]

Annexure VI

Remuneration Policy

Hindalco Industries Limited *("the Company")* an Aditya Birla Group ("ABG") Company adopts this Executive Remuneration Philosophy/Policy as applicable across Group Companies of ABG. This philosophy/ policy is detailed below.

Aditya Birla Group: Executive Remuneration Philosophy/Policy

At the Aditya Birla Group, we expect our executive team to foster a culture of growth and entrepreneurial risk-taking. Our Executive Remuneration Philosophy/Policy supports the design of programs that align executive rewards – including incentive programs, retirement benefit programs, promotion and advancement opportunities – with the long-term success of our stakeholders.

Our business and organizational model

Our Group is a conglomerate and organized in a manner such that there is sharing of resources and infrastructure. This results in uniformity of business processes and systems thereby promoting synergies and exemplary customer experiences.

I. Objectives of the Executive Remuneration Program

Our executive remuneration program is designed to attract, retain, and reward talented executives who will contribute to our long-term success and thereby build value for our shareholders.

Our executive remuneration program is intended to:

1. Provide for monetary and non-monetary remuneration elements to our executives on aholistic basis.
2. Emphasize "Pay for Performance" by aligning incentives with business strategies to reward executives who achieve or exceed Group, business and individual goals.

II. Covered Executives

Our Executive Remuneration Philosophy/Policy applies to the following:

1. Directors of the Company;
2. Key Managerial Personne: Chief Executive Officer and equivalent (eg: Deputy Managing Director), Chief Financial Officer and Company Secretary.
3. Senior Management: As decided by Board

III. Business and Talent Competitors

We benchmark our executive pay practices and levels against peer companies in similar industries, geographies and of similar size. In addition, we look at secondary reference (internal and external) benchmarks in order to ensure that pay policies and levels across the Group are broadly equitable and support the Group's global mobility objectives for executive talent. Secondary reference points bring to the table, the executive pay practices and pay levels in other markets and industries, to appreciate the differences in levels and medium of pay and build in as appropriate for decision making.

IV. Executive Pay Positioning

We aim to provide competitive remuneration opportunities to our executives by positioning target total remuneration (including perks and benefits, annual incentive pay-outs, long term incentive pay-outs at target performance) and target total cash compensation (including annual incentive pay-outs) at target performance directionally between

Annexure VI

median and top quartile of the primary talent market. We recognize the size and scope of the role and the market standing, skills and experience of incumbents while positioning our executives.

We use secondary market data only as a reference point for determining the types and amount of remuneration while principally believing that target total remuneration packages should reflect the typical cost of comparable executive talent available in the sector.

V. Executive Pay-Mix

Our executive pay-mix aims to strike the appropriate balance between key components: (i) Fixed Cash compensation (Basic Salary + Allowances) (ii) Annual Incentive Plan (iii) Long- Term Incentives (iv) Perks and Benefits

Annual Incentive Plan

We tie annual incentive plan pay-outs of our executives to relevant financial and operational metrics achievement and their individual performance. We annually align the financial and operational metrics with priorities/ focus areas for the business.

Long-Term Incentive

Our Long-term incentive plans incentivize stretch performance, link executive remuneration to sustained long term growth and act as a retention and reward tool.

We use stock options as the primary long-term incentive vehicles for our executives as we believe that they best align executive incentives with stockholder interests.

We grant restricted stock units as a secondary long term incentive vehicle, to motivate and retain our executives.

VI. Performance Goal Setting

We aim to ensure that for both annual incentive plans and long-term incentive plans, the target performance goals shall be achievable and realistic.

Threshold performance (the point at which incentive plans are paid out at their minimum, but non-zero, level) shall reflect a base-line level of performance, reflecting an estimated 90% probability of achievement.

Target performance is the expected level of performance at the beginning of the performance cycle, taking into account all known relevant facts likely to impact measured performance.

Maximum performance (the point at which the maximum plan payout is made) shall be based on an exceptional level of achievement, reflecting not more than an estimated 10% probability of achievement.

VII. Executive Benefits and Perquisites

Our executives are eligible to participate in our broad-based retirement, health and welfare, and other employee benefit plans. In addition to these broad-based plans, they are eligible for perquisites and benefits plans commensurate with their roles. These benefits are designed to encourage long-term careers with the Group.

Other Remuneration Elements

Each of our executives is subject to an employment agreement. Each such agreement generally provides for a total remuneration package for our executives including continuity of service across the Group Companies.

We limit other remuneration elements, for e.g. Change in Control (CIC) agreements, severance agreements, to instances of compelling business need or competitive rationale and generally do not provide for any tax gross ups for our executives.

Risk and Compliance

We aim to ensure that the Group's remuneration programs do not encourage excessive risk taking. We review our remuneration programs for factors such as, remuneration mix overly weighted towards annual incentives, uncapped pay-outs, unreasonable goals or thresholds, steep pay-out cliffs at certain performance levels that may encourage short-term decisions to meet pay-out thresholds.

Claw back Clause

In an incident of restatement of financial statements, due to fraud or non-compliance with any requirement of the Companies Act, 2013 and the rules made thereunder, we shall recover from our executives, the remuneration received in excess, of what would be payable to him / her as per restated financial statements, pertaining to the relevant performance year.

Implementation

The Group and Business Centre of Expertise teams will assist the Nomination & Remuneration Committee of the Company in adopting, interpreting and implementing the Executive Remuneration Philosophy/Policy. These services will be established through "arm's length", agreements entered into as needs arise in the normal course of business.

Annexure VII

FORM NO. MR-3
Secretarial Audit Report for the Financial Year Ended 31st March, 2024

[Pursuant to section 204(1) of the Companies Act, 2013 and rule No. 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To
The Members
Hindalco Industries Limited
21st Floor, One Unity Center,
Senapati Bapat Marg, Prabhadevi,
Mumbai – 400013

We have conducted the Secretarial Audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **HINDALCO INDUSTRIES LIMITED** *[hereinafter called "the Company"]* having **CIN L27020MH1958PLC011238** for the audit period covering the financial year ended on **March 31, 2024** *["the Audit Period"]*. Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed as provided by the Company and other records maintained by the Company along with the information provided by the Company, its officers, agents and authorized representatives during the conduct of Secretarial Audit, we hereby report that in our opinion, the Company has, during the audit period complied with the statutory provisions listed hereunder and also that the Company has proper Board-processes and compliance-mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company as given in **Annexure I**, for the financial year ended on 31st March, 2024, according to the provisions of:

(i) The Companies Act, 2013 *["the Act"]* and the rules made thereunder;

(ii) The Securities Contracts (Regulation) Act, 1956 *["SCRA"]* and the rules made thereunder;

(iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;

(iv) Foreign Exchange Management Act, 1999 and the Rules and Regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;

(v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992;

a) The Securities and Exchange Board of India [Substantial Acquisition of Shares and Takeovers] Regulations, 2011;

b) The Securities and Exchange Board of India [Prohibition of Insider Trading] Regulations, 2015;

c) The Securities and Exchange Board of India [Share Based Employee Benefits and Sweat Equity] Regulations, 2021;

d) The Securities and Exchange Board of India [Registrars to an Issue and Share Transfer Agents] Regulations, 1993;

e) The Securities and Exchange Board of India [Listing Obligations and Disclosure Requirements] Regulations, 2015; and

f) The Securities and Exchange Board of India [Issue and Listing of Non-Convertible Securities] Regulations, 2021.

(vi) Other laws for which compliances were verified on test check basis include the following:

a) The Mines Act, 1952,

b) The Mines and Minerals [Regulation and Development] Act, 1957,

c) Environment [Protection] Act, 1986 and

d) The Sexual harassment of women at workplace [Prevention, Prohibition, Redressal] Act, 2013.

Secretarial Standard namely, SS-1 and SS-2, respectively in relation to the meetings of the Board of Directors and General Meetings, issued by The Institute of Company Secretaries of India, and notified by Central Government under Section 118(10) of the Act and mandatorily applicable to the company.

During the audit period, provisions of the following regulations were not applicable to the Company:

a) The Securities and Exchange Board of India [Delisting of Equity Shares] Regulations, 2021;

b) The Securities and Exchange Board of India [Buyback of Securities] Regulations, 2018; and

c) The Securities and Exchange Board of India [Issue of Capital and Disclosure Requirements] Regulations, 2018;

d) The Foreign Exchange Management Act, 1999 and the Rules and Regulations made thereunder to the extent of Foreign Direct Investment.

We have also examined compliance with the applicable clauses of the following:

(i) Secretarial Standards issued by The Institute of Company Secretaries of India.

(ii) The Securities and Exchange Board of India (Listing Obligations and Disclosure requirements) Regulations, 2015 and amendments made thereunder ('Listing Regulations')

During the period under review, the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines and Standards etc.

We have relied on the representations made by the Company and its officers and report of the Statutory Auditor, Internal Auditor and other designated professionals for systems and mechanism formed by the Company for compliances under other applicable Laws.

We further report that –

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors, Independent Directors and the Key Managerial Personnel. The changes in the composition of the Board of Directors that took place during the period under review were carried out in compliance with the provisions of the Act.

Adequate notice is given to all the Directors to schedule the Board Meetings. Agenda and detailed notes on agenda were sent at least 7 *[seven]* days in advance, except for the Meeting(s) held at a shorter notice in compliance with the Act and Secretarial Standard – 1. Adequate system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting. The Unpublished Price Sensitive Information *[UPSI]* is circulated to the Board at least 24 hours before the Meeting setting high governance standards. Decisions at the meetings of the Board of Directors of the Company were carried through on the basis of majority. There were no dissenting views by any member of the Board of Directors during the audit period.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

Annexure VII

We further report that during the audit period, following specific event / action has occurred during the year:

Sr. No.	Date	Important Matters approved by Board of Directors
1	May 24, 2023	• Shifting of registered office from 1st Floor, Ahura Centre, B Wing, Mahakali Caves Road, Andheri (East), Mumbai 400093 to 21st Floor, One International Center, Tower 4, Prabhadevi, Near Prabhadevi Railway Station, Senapati Bapat Marg, Mumbai 400013 w.e.f. June 1, 2023. • Investment of an amount up to ₹ 2 Crore in Hindalco KK- Japan by way of equity and/ or loans subject to RBI approval. • Adoption of the resolution passed by the Committee for allotment of 21,938 equity shares under Employee Stock Option Schemes.
2.	July 12, 2023	• Sale of the land situated at Kalwa, Thane, Maharashtra to M/s. Birla Estates Private Limited by way of executing a Memorandum of Understanding ["MoU"] as per the consideration, terms and conditions, timeline as may be mutually agreed between the parties. • Sanctioned an overall investment limit of up to ₹ 250 Crores for investment and creation of SPVs with Aditya Birla Renewables Ltd ["ABReL"]. • Forming a SPV with Renewable Power Private Limited to buy 100 MW round-the-clock renewable power for the Lapanga smelter in Orissa by investing up to ₹ 175 crores as equity or quasi equity in the SPV. The Company will own at least 26% of the SPV.
3.	November 10, 2023	• Noted the change in the name of the building of the registered office address from One International Center to One Unity Center w.e.f. December 1, 2023 and the same was notified to the MCA by filing requisite e-form.
Sr. No.	**Date**	**Matters approved by the Shareholders**
1.	August 22, 2023 *[Annual General Meeting]*	• Re-appointment of Mr. Praveen Kumar Maheshwari as the Whole Time Director for a period of 1 year commencing from May 28, 2023, until March 31, 2024 in accordance with the provisions of the Act. • Change in place of keeping the Register and Index of Members from the Registered Office to address of the Registrar and Transfer Agents of the Company.
2.	March 20, 2024 *[Postal Ballot]*	• Re-appointment of Mr. Praveen Kumar Maheshwari as a Whole-time Director • Appointment of Mr. Arun Adhikari as an Independent Director • Appointment of Mr. Sushil Agarwal as a Non-Executive Director • Re-appointment of Dr. Vikas Balia as an Independent Director • Re-appointment of Mr. Satish Pai as the Managing Director

We further report that during the audit period there were no instances for the following events:

i. Public/Right/Preferential issue of shares / debentures/sweat equity, etc.

ii. Buy-Back of securities

iii. Merger / amalgamation / reconstruction, etc.

iv. Foreign technical collaborations

For DILIP BHARADIYA & ASSOCIATES

DILIP BHARADIYA
Partner
FCS No.: 7956., C P No.: 6740
UDIN: F007956F000440938

Place : Mumbai
Date : May 24, 2024

NOTE: *This report is to be read with our letter of even date which is annexed as Annexure II and forms an integral part of this report.*

Annexure VII

ANNEXURE - I

List of documents verified:

1. Memorandum and Articles of Association of the Company.
2. Annual Report for the Financial Year ended March 31, 2023.
3. Minutes and Attendance Registers of the meetings of the Board of Directors, Audit Committee, Nomination and Remuneration Committee, Risk Management and Sustainability Committee, Corporate Social Responsibility Committee, Stakeholders' Relationship Committee held during the period under review.
4. Circular Resolutions approved by the Board of Directors and its Committees from time to time.
5. Minutes of General Body Meetings/ Postal Ballot held during the period under review.
6. Statutory Registers viz.
   - Register of Members;
   - Register of Debenture holders and other security holders;
   - Register of Directors and Key Managerial Personnel and their Shareholding;
   - Register of Employee Stock Options;
   - Register of loans, guarantee, security and acquisition made by the Company;
   - Register of Renewed and Duplicate Share Certificates;
   - Register of Charges and
   - Register of Contracts with Related Party and contracts and bodies, etc. in which directors are interested.
7. Agenda papers submitted to all the Directors / Members for the Board and Committee Meetings.
8. Declarations received from the Directors of the Company pursuant to the provisions of Sections 184(1), 164(2), 149(3) and 149(7) of the Act.
9. Intimations received from Directors under the Code of Conduct for Trading in Listed or Proposed to be Listed Securities of Hindalco Industries Limited.
10. Structured Digital Database in accordance with SEBI [Prohibition of Insider Trading] Regulations, 2015.
11. E-Forms filed by the Company, from time-to-time, under applicable provisions of the Act, alongwith the attachments thereof, during the audit period.
12. Intimations / documents / reports / returns filed with the Stock Exchanges pursuant to the provisions of the SEBI Listing Regulations.

ANNEXURE - II

To,
The Members,
HINDALCO INDUSTRIES LIMITED

Our Secretarial Audit report of even date is to be read along with this letter,

1) Maintenance of secretarial record is the responsibility of the Management of the Company. Our responsibility is to express an opinion on these secretarial records based on our audit.

2) We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the processes and practices, we followed provide a reasonable basis for our opinion.

3) We have not verified the correctness and appropriateness of financial records and Books of accounts of the Company.

4) Wherever required, we have obtained the Management representation about the compliance of laws, rules and regulations and happening of events etc.

5) The compliance of the provisions of Corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to the verification of procedures on test basis.

6) The Secretarial Audit report is neither an assurance as to future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

For **DILIP BHARADIYA & ASSOCIATES**

DILIP BHARADIYA
Partner
FCS No.: 7956, C P No.: 6740

Place : Mumbai
Date : May 24, 2024

Annexure VIIA

FORM NO. MR-3
Secretarial Audit Report for the financial year ended 31st March, 2024

[Pursuant to section 204(1) of the Companies Act, 2013 and rule No. 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To,
The Members of,
UTKAL ALUMINA INTERNATIONAL LIMITED
Orissa

We have conducted the Secretarial Audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **UTKAL ALUMINA INTERNATIONAL LIMITED** (hereinafter called "the Company"). Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

We have verified the documents /records /returns / registers /minutes made available in electronic mode and based on the representations received from the Company for its accuracy and authenticity. Our report also covers the due adherence of the miscellaneous circulars/ notifications/guidelines as issued by the regulatory bodies from time to time. Further we have verified books, papers, minute books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorized representatives during the conduct of secretarial audit, we hereby report that in our opinion, the Company has during the year ended 31st March, 2024 (Financial Year), complied with the statutory provisions listed hereunder and also that the Company has proper Board-processes and compliance-mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company as given in **Annexure I**, during the year ended 31st March, 2024, according to the provisions of:

(i) The Companies Act, 2013 (the Act) and the rules made thereunder;

(ii) The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the rules made thereunder - to the extent applicable;

(iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder - to the extent applicable;

(iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings - to the extent applicable,

We have relied on the representations made by the Company and its Officers for systems and mechanism formed by the Company for compliances under other applicable Acts, Laws and Regulations to the Company. We have also examined compliance with the applicable clauses of the Secretarial Standards issued by The Institute of Company Secretaries of India.

During the financial year under review, the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, Standards, etc. mentioned above.

We further report that the Company is a wholly owned subsidiary of Hindalco Industries Limited and as per Rule 4 of the Companies (Appointment and Qualifications of Directors) Rules, 2014, as amended from time to time the Company was not required to appoint any Independent Director on its Board and pursuant to Rule 6 of Companies (Meetings of Board and its Powers) Rules, 2014, the Company was not required to constitute an Audit Committee or Nomination and Remuneration Committee of the Board of Directors of the Company.

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors. During the period under review there were no changes in the composition of the Board of Directors, however the changes in the Key Managerial Personnel that took place were carried out in compliance with the provisions of the Act.

Adequate notice is given to all the Directors to schedule the Board Meetings. Agenda and detailed notes on agenda were sent at least seven days in advance and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

There are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

We report that during the year under review:

i. The Board of Directors in their duly called meetings authorised to contribute a total sum of ₹ 100,00,00,000/- (Rupees One Hundred Crores) in one or multiple tranches and/or purchase the Electoral Bonds in accordance with the Electoral Trust Scheme, 2018 to AB General Electoral Trust.

ii. The Board of Directors at its meeting held on 15th July, 2023, issued and allotted one (01) Zero Coupon Unsecured Redeemable Non-Convertible Debentures ("NCDs") of the face value of ₹ 3 Crore each (Rupees Three Crore Only) to Orissa Mining Corporation Limited for consideration other than cash on a Private Placement Basis in accordance with the agreement executed between the two parties.

We further report that during the audit period there were no instances for the following events:

i. Public/Right/Preferential issue of shares / sweat equity, etc.

ii. Redemption / buy-back of securities

iii. Merger / amalgamation / reconstruction, etc.

iv. Foreign technical collaborations

For **DILIP BHARADIYA & ASSOCIATES**

DILIP BHARADIYA
Partner
FCS No.: 7956., C P No.: 6740
UDIN: F007956F000213854

Place : Mumbai
Date : April 23, 2024

NOTE: This report is to be read with our letter of even date which is annexed as Annexure II and forms an integral part of this report.

Annexure VIIA

ANNEXURE - I

List of documents verified:

1. Memorandum & Articles of Association of the Company.
2. Annual Report for the financial year ended 31st March, 2023.
3. Minutes of the meetings of the Board of Directors along with Attendance Register held during the financial year covered under the report.
4. Minutes of General Body Meetings held during the financial year covered under the report.
5. Statutory Registers viz.
   - Register of Directors' & KMP
   - Register of Directors' Shareholding
6. Agenda papers submitted to all the directors / members for the Board Meetings.
7. Declarations received from the Directors of the Company pursuant to the provisions of Section 184 of the Companies Act, 2013.
8. E-Forms filed by the Company, from time-to-time, under applicable provisions of the Companies Act, 2013 and attachments thereof during the financial year covered under the report.

ANNEXURE - II

To,
The Members,
UTKAL ALUMINA INTERNATIONAL LIMITED
Orissa

Our Secretarial Audit report of even date is to be read along with this letter,

1) Maintenance of secretarial record is the responsibility of the Management of the Company. Our responsibility is to express an opinion on these secretarial records based on our audit.

2) We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the processes and practices, we followed provide a reasonable basis for our opinion.

3) We have not verified the correctness and appropriateness of financial records and Books of accounts of the Company.

4) Wherever required, we have obtained the Management representation about the compliance of laws, rules and regulations and happening of events etc.

5) The compliance of the provisions of Corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to the verification of procedures on test basis.

6) The Secretarial Audit report is neither an assurance as to future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

For **DILIP BHARADIYA & ASSOCIATES**

DILIP BHARADIYA
Partner
FCS No.: 7956, C P No.: 6740

Place : Mumbai
Date : April 23, 2024

Annexure VIII

Practising Company Secretaries' Certificate on Corporate Governance

The Members,
Hindalco Industries Limited

1. The Corporate Governance Report prepared by Hindalco Industries Limited *[hereinafter "the Company"]*, having CIN: L27020MH1958PLC011238 contains details as required by the provisions of Chapter IV of Securities and Exchange Board of India [Listing Obligations and Disclosure Requirements] Regulations, 2015, as amended *["the Listing Regulations"] ["Applicable criteria"]* with respect to Corporate Governance for the year ended March 31, 2024.

Management's Responsibility

The preparation of the Corporate Governance Report is the responsibility of the Management of the Company including the preparation and maintenance of all relevant supporting records and documents. This responsibility also includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the Corporate Governance Report.

2. The Management along with the Board of Directors are also responsible for ensuring that the Company complies with the conditions of Corporate Governance as stipulated in the Listing Regulations, issued by the Securities and Exchange Board of India.

Auditor's Responsibility

3. Pursuant to the Listing Regulations, our responsibility is to certify whether the Company has complied with the specific requirements of the Listing Regulations referred to in paragraph 3 above.

4. We conducted our examination of the Corporate Governance Report as stipulated under Regulations 17 to 27, clauses (b) to (i) of sub-regulation (2) of Regulation 46 and para C, D & E of Schedule V of the Listing Regulations. The procedures selected depend on our judgement, including the assessment of the risks associated in compliance of the Corporate Governance Report with the applicable criteria.

5. The scope of such audit included the following:

   i. Reading and understanding of the information prepared by the Company and included in its Corporate Governance Report;

   ii. Obtained and verified that the composition of the Board of Directors w.r.t. executive and non-executive directors has been met throughout the reporting period;

   iii. Obtained and read the Directors Register as on March 31, 2024 and verified that at least one women director was on the Board during the year;

   iv. Obtained and read the minutes of the Board/Members/Committee meetings held during April 1, 2023 to March 31, 2024;

   v. Obtained necessary representations and declarations from directors of the Company including the Independent Directors; and

   vi. Conducted necessary inquiries with the management and also obtained necessary specific representations from them.

The above-mentioned procedures include examining evidence supporting the particulars in the Corporate Governance Report on a test basis. Our examination was limited to the review of procedures and implementation thereof, as adopted by the Company for ensuring compliance with conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

Opinion

6. Based on the procedures performed by us as referred in paragraph 5 & 6 above and according to the information and explanations given to us, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in the Listing Regulations, as applicable for the year ended March 31, 2024, referred to in paragraph 1 above.

Restriction on Use

7. This report is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

8. This report is addressed to and provided to the members of the Company solely for the purpose of enabling it to comply with its obligations under the Listing Regulations with reference to compliance with the relevant regulations of Corporate Governance and should not be used by any other person or for any other purpose.

Accordingly, we do not accept or assume any liability or any duty of care or for any other purpose or to any other party to whom it is shown or into whose hands it may come without our prior consent in writing.

We have no responsibility to update this report for events and circumstances occurring after the date of this report.

For **DILIP BHARADIYA & ASSOCIATES**

DILIP BHARADIYA
Partner
FCS No.: 7956, C P No.: 6740
UDIN: F007956F000440971

Place : Mumbai
Date : May 24, 2024

Social Report

Towards enriching lives: A brief narrative on our CSR engagement

"There is a lot to distinguish us from the rest of the world. Over the last decade and a half, India, the world's largest democracy, has been on an epic journey of growth and evolution. The heartening reforms agenda flagged off over the last couple of decades, has turned the tide with the upliftment of over 400 million people from the mire of poverty.

Public infrastructure is gaining momentum. The digital revolution is undeniably enhancing productivity and stoking employment. India stands at the cusp of becoming the next great economic power. As it is, we are the world's fastest growing economy, at an estimated rate of 7.5%, which is truly amazing. GDP grew at a whopping 8.6% in the year to the 4th quarter of 2023. In a NASSCOM study as well as in the TOI edit (Swaminomics) on the rise of Global Capabilities Centres (GCC) setup in India by multinationals for their multiple R&D and other services, they have mentioned that in 2023, 1580 centres were engaged in pursuit of their business. Today, the GCCs employ more than 3.2 million Indians.

We are the only country world over to record an estimated 2.3 million STEM graduates. Truly a terrific resource.

Furthermore, India is amongst the youngest countries in terms of our youth force. The median age of 28.2 implies that half the population is below this age. India's population bulge is sharpest in the 15 to 24 age group.

The magnitude of India's demographic dividend is sizeable enough to sustain economic growth of 8% over the next two to three decades. This tantalizing growth potential arises from the interplay of several forces that are playing out along with the demographic dividend. But there are anxieties as well. The foremost concern that haunts us is the specter of rising unemployment.

The India Skills Report states that only 52.3 percent of recent graduates are employable. This underscores the need to retune our education systems, so that they result in meeting market or industry needs. The New Education Policy has taken a step but still has a long way to go. Even though a macro level issue, we believe corporates can play a vital role.

Concerted efforts are required not only leaning on the government, but captain of industry, academicians, champions of innovation, among others, to enhance the relevance and effectiveness of education per se and skill training institutes.

To address anxieties, in our CSR endeavours, besides our focus on health, educations, and infrastructure, our gaze is fixed on getting a secure life for the underprivileged through the right kind of training, right kind of learning and development, more so of skill development, so that going forward they have a market value.

At the ground level, we have embarked on training over 3 lakh farmers in scientific agro field management, practices and crop cultivation. We have helped formation of 6000 women SHGs. Our playbook also encompasses skills training centres attuning them to the market requirement.

What is important is that of ensuring circularity, entailing that all that they produced is willingly accepted by the customers and they have an assured level of income. The loop is complete.

Your Company, Hindalco, has made significant strides in the 622 villages and 17 urban slums with a reachout of 1.3 million people crisscrossing 10 states and a union territory. Read about how your Company is enriching lives, aligning with the UNSDGs."

Rajashree Birla
Chairperson
Aditya Birla Centre for Community Initiatives and Rural Development

A Summary of our Work:

SDG-1: To rid poverty across all nations by 2030:

Our CSR engagement aims primarily to enrich lives of the underprivileged by making them self-reliant and live a life of dignity and respect. It spans our 18 manufacturing units across India, viz. West Bengal, Jharkhand, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Gujarat, Maharashtra, Karnataka, Telangana, Kerala, Dadra & Nagar Haveli and Daman & Diu.

SDG-2: To end all forms of hunger and malnutrition by 2030:

To boost agricultural and horticultural activities and better agricultural output, we engaged with 5,824 farmers through 319 camps across Dahej, Singrauli, Lohardaga, Garepalma, Belagavi, Renukoot and Renusagar. Farmer training programmes bring them up to speed on the most modern agricultural practices. We recourse to live situations such as demonstration plots, soil testing, providing quality seeds, tutoring them in inter-cropping, field visits to the agricultural universities to cite a few.

Over 1,361 farmers of Gumla, Latehar and Lohardaga district of Jharkhand were provided quality seeds of raagi and millet. This enabled extend millet cultivation in 1527 acres of land. Farmers have been connected with Jharkhand State Livelihood Promotion Society for closing the marketing loop.

Under project Hareli in Garepalma, 450 acres were brought under cultivation.

Agricultural tools, seeds, fertilisers and crop protection agents distributed during the agriculture support programmes organised at Renukoot, Singrauli, Dahej and Lohardaga were most welcomed by 1,797 recipients.

An exposure visit was organised for 167 farmers from Garepalma to Botlada Kharsia, Chhattisgarh to interact with the farmers engaged in Dairy farming and Vegetable Cultivation. Likewise, farmers around Dahej learnt a lot during their tour to Methi and Bawalia village on organic farming techniques.

Farmers clubs received a good start at Renukoot and Renusagar with an affiliation of 1,608 farmers.

On agricultural farmland the levelling and trench digging at Lohardaga, benefitted 85 farmers while 1,232 farmers did better with lift and drip irrigation facilities at Renukoot, Lohardaga. Akshayghat in Singrauli has made a substantial impact through construction of 4 check dams. Consequently 135 hectares of land have been brought under irrigation, aiding 182 farmers. Similarly, under the Jal Sanchay project at Renukoot, we have constructed 9 check dams irrigating 99 hectares land owned by 154 farmers.

The project Agricultural Movement Initiative (AMI) encompasses 6 villages of Bharuch District in Gujarat with 258 women. They have begun organic farming on 25 acres of land in Dahej. To facilitate the process an agricultural resource centre has been instituted. At Dahej, Lohardaga and Renukoot, we have fostered 18 vermi compost tanks.

Through the social forestry programme 94,980 saplings have been distributed at Samri, Renukoot, Renusagar, Lohardaga, Taloja, Kathautia, Garepalma, Samri, Silvasa and Belagavi.

Lac cultivation over 42 acres of land has been a positive initiative taken up by 74 artisans of Latehar and Gumla district. A commercial tie up – it has enriched the livelihood of these families to a great extent.

51 students from Singrauli, Belur and Chakla were taken on a knowledge gain visit to ITI's/ Pan ITIs, Rudiseti-Silli, Ramakrishna Mission Belur as well as the Aditya Birla Technology Park at Muirpur.

Under Swashakti Project in Dharwad and Haveri districts of Karnataka, we established 12 skill training centers. Here 3,866 women were trained in fashion designing and tailoring. Out of them 3,442 women received a certificate from National Council of Vocational Training (NCVT) and sewing machines. So far 1,778 women have been already placed in Garment Industries.

Alongside, vocational skills training has been accorded to 1088 people at Renukoot, Renusagar, Singrauli, Lohardaga, Maliparbat, Taloja, Samri, Kathautia, Garepalma, Chakla and Silvassa.

Project Astitva at Dahej has generated self-employment opportunities for 173 differently abled.

Social Report

A state-of-the-art skill centre (Aditya Birla Skills Centre) has been instituted at Sambalpur. This is a unique initiative, to deliver sustainable Vocational Education and Skills Training and Entrepreneurship Development for the benefit of the young.

This year, 42,558 animals were immunised at veterinary camps at Renukoot, Renusagar, Lohardaga, Samri, Dahej, Belagavi and Chakla. Aditya Birla Rural Technology Park (ABRTP) at Renukoot provided veterinary care including artificial insemination and cattle vaccination along with maintaining a model dairy farm with 33 cows.

A cattle development/ breeding center has been birthed at Dahej. It accords Artificial Insemination (breeding), at the doorstep of the farmer. The center devises ways to improve nutrition and for the cattle to stay healthy.

Water Positivity:

We have constructed 32 check dams, excavated 20 ponds, 32 structures for ground water recharge, 3 watershed structures, 12 rainwater harvesting projects, 6 irrigation channels and excavated 28 trenches, and renovated 7 check dams/irrigation channels at Renukoot and Singrauli.

As a result, we have conserved 13,08,73,440 litres of water reaching out to 2584 farmers.

We have installed 75 hand pumps, repaired 1,362 hand pumps and dug wells. These provide safe drinking water to the surrounding villages. Additionally, we provide potable water to 55 villages through water tankers and pipelines. This is looked upon as a boon by 62,428 villagers who now have access to safe drinking water.

SDG-3: Ensuring, healthy lives and promoting well-being for all, in all age groups

We held 1,579 rural medical and awareness camps to provide healthcare facilities. Health check-ups were conducted for ailments such as malaria, filarial, diarrhoea, diabetes, hepatitis, arthritis, skin diseases, gynaecological disorders and cardiac related issues. Our rural mobile medical van services complemented these efforts. More than 97,412 villagers availed of our healthcare services. In addition we have also organized 68 Specialist camps like Cardiac, Gynaecology, Paediatrics, Orthopaedics, ENT, Urology, Dentistry, etc. where 7,062 critical cases were attended. Those diagnosed with serious ailments were referred to our hospitals for treatment.

Your Company's 4 hospitals and 20 dispensaries/clinics render invaluable healthcare. Located at Renukoot and Renusagar (Uttar Pradesh), Belagavi (Karnataka), Muri, Lohardaga, Samri (Jharkhand), Raigad (Chhattisgarh) and Dahej (Gujarat), they treated 69,081 underserved patients.

Furthermore, in collaboration with 8 Government health centres, 36,585 patients were cared for at Renukoot, Samri, Garepalma, Taloja, Chakla and Silvassa. At Lohardaga and Chakla, over 24 patients afflicted with chronic ailments were examined and medical advice/treatment was given.

At our 27 eye camps 4,817 persons were treated. Of these 155 patients at Mouda, Renukoot and Kathautia were operated for cataract. Intra-ocular lens (IOL) were fitted for their vision.

At 15 dental check-up camps, organised at Renukoot, 977 persons were treated.

In Silvassa, Garepalma, Lohardaga,Samri, Renukoot, Maliparbat, Muri, Belagavi, Chakla and Taloja, over 995 patients were diagnosed with Tuberculosis and registered under the Directly Observed Treatment programme (DOT) at various designated microscopic centres (DMC) and the Aditya Birla Rural Technology Park, Muirpur and Govt. Hospitals. As Nikshay Mitra, we have supported all these cases with nutritional food basket .

At 60 camps in Singrauli, Belagavi, Lohardaga, Kathautia, Garepalma, Renusagar and Renukoot on STD/RTI and AIDS awareness, 4,643 persons underwent tests, and many were given treatment in line with the diagnosis.

At Muri, we operate the GPS based ambulance service facility 'Jeevan Mitra Sewa Yojana'. Additionally, free ambulance services in emergency cases at Renukoot, Lohardaga, Kathautia and Garepalma facilities were applauded by the natives as well. Over 3,740 people have availed of this service.

Our 63 School Health Check-up Camps reached out to 6,112 students at Renukoot, Lohardaga, Kathautia, Dahej and Chakla.

To check on prevalence of malaria and diarrhoea as a preventive care initiative at Lohardaga and Samri Mines, check-ups were organised. Over 12,954 villagers came for the health check-up.

Furthermore, mosquito nets were distributed to 3,601 people at Renusagar and Singrauli.

To promote physical and mental wellbeing, 25 yoga classes were held, attended by 918 people.

In collaboration with the District Health Department, over 1,04,069 children were immunised against polio. Further, 32,977 children were administered the BCG, DPT and anti-hepatitis-B vaccines across the company's units.

More than 31,490 expectant mothers and their children leveraged our 16 family welfare centres at Renukoot, Renusagar and Kathautia to avail of the services offered under our Safe Motherhood and Child Survival Programme.

Nearly 17,994 women took great interest in ante-natal, post-natal care, mass immunisation, nutrition and escort services for institutional delivery. These camps organised at Taloja, Renukoot, Singrauli, Kathautia, Samri, Garepalma, Chakla, Taloja and Lohardaga form part of our reproductive and child health care programmes.

In adolescent health check-up camps, 1,312 girls were examined and counselled.

SDG-4: Education:

At the 19 Balwadis that we support, over 511 pre-schoolers have taken their first steps towards informal learning processes. These centres are running at Renukoot, Lohardaga, Belagavi, Taloja and Singrauli.

More than 6,137 children are enrolled at 171 Anganwadis that we help at Renukoot, Singrauli, Samri, Lohardaga, Taloja, Chakla, Silvassa, Renusagar and Kathautia. We are working with 379 malnourished children and creating awareness on importance of proper nutrition, besides health check-ups under the Integrated Child Development Scheme (ICDS) at Lohardaga and Silvassa. Additionally, proper utensils both for cooking and serving were given to 236 primary schools of Bharuch district at Dahej, impacting 16,526 children. We have transformed 19 existing Anganwadi centers at Lohardaga (11), Taloja (6) and Mahan (2) into model ones with proper infrastructure development and other services.

At our 10 Aditya Birla Public Schools at Renukoot, Renusagar, Dahej and Muri, we have enrolled 4,885 rural students. Alongside 2,283 students have been enlisted in 5 Aditya Birla Vidya Mandirs at Renukoot, Kathautia and Samri.

Under the 'Shala Praveshotsav' programme, 14,987 students from 92 schools from Vagra tehsil in Bharuch were provided with notebooks, practice work books, slates, school bags and education material for 'Pragnya' classes. Education kits were given to yet another 6,771 children at Renukoot, Singrauli, Lohardaga, Maliparbat, Belagavi,Taloja and Chakla.

Under the Sarva Siksha Abhiyan (SSA) programme, we have tied up with 12 primary schools at Lohardaga, Maliparbat, Taloja and Silvasa, helping 937 students.

Our 'Mahan Jyoti' scholarship programme reached out to 296 students.

To meet with the challenges of scarcity of teachers in Lohardaga, Kathautia and Dahej, we recruited 39 teachers on our roster deputing them to primary and secondary schools.

To address the issue of school dropouts, we organised 37 'meet the parent' counselling events at Renukoot, Lohardaga, Belagavi, Taloja, Chakla, and Kathautia.

At the same time, we set up coaching classes for 383 students weak in Math, Science and English to enable them to get through the exams. We conducted Specialized Coaching for Class XII students at Renusagar.

In Dahej, Lohardaga, Samri, Garepalma and Muri, where the dropout rate among secondary level girl students is high, we provide bus services to nearly 700 students to help them continue their education.

We aligned very well with the 3 Kasturba Gandhi Vidyalayas (KGBVs) at Renukoot, Lohardaga and Muri with the learning process for 675 girls.

We have an attendance of 208 students at the 13 non-formal

Social Report

schools at Lohardaga. At our 6 adult literacy programmes at Renusagar, Kathautia and Muri 124 participants evinced keen interest.

We organised sports and cultural programmes in more than 61 schools, in which 7,109 students took part.

More than 412 students were taken for learning exposure visits from Renukoot to Aditya Birla Rural Technology Park , from Kathautia to Betala tiger reserve national park, from Taloja to Dyanpeeth Karjat. This is where children experienced learning, outside the class room.

At Renusagar, Belur, Kathautia, Belagavi, Chakla, Silvassa and Singrauli, we run 17 centres on computer literacy. These were attended by 2,319 rural students from the hinterland.

At our 3 mini–Science Centres in Singrauli, Garepalma and Belagavi 1,257 students have benefitted. We are also supporting 14 schools through smart classes reaching out to more than 8,569 students, providing digital software equipped with course materials.

Our 61 career counselling camps at Singrauli, Renukoot, Lohardaga, Belagavi, Garepalma, Taloja, Chakla, Silvasa, saw the active participation of 5,275 aspiring students. Subsequently, many of them joined technical and vocational training programmes.

We have constructed 4 School Buildings at Singrauli, Garepalma, Dahej and Belagavi, 3 additional classrooms at Renukoot and Belagavi and repaired 21 school buildings at Renukoot, Singrauli, Belur, Lohardaga, Belagavi and Taloja. We have also supplied furniture to 6 schools at Taloja, Maliparbat and Belagavi. Set up 6 sanitation blocks at Renukoot, Singrauli, Lohardaga and Chakla. Drinking water is now accessible across 14 schools at Singrauli, Belur, Lohardaga, Taloja and Chakla.

SDG-5: Women empowerment and gender equality:

The 1,581 SHGs set up by us empower 22,357 households economically and socially.

The Kasi-Craft project in Kathautia, 40 women learnt the art of making handicraft items.

We organised 2 dowry less mass marriage programme at Lohardaga and Garepalma.

We have distributed 16,215 blankets at Renusagar, Singrauli, Lohardaga, Garepalma, Muri, Renukoot, Samri, Kathautia and Taloja to the needy.

We support orphanages and old age homes at Chakla and Silvassa.

The sixth, seventh and eighth SDGs, center on water and sanitation, reliable, sustainable, modern energy, decent work, and economic growth.

In collaboration with the Swachh Bharat Abhiyan, we availed Government schemes and contributed from our own funds to build 65 toilets at Lohardaga and Belagavi. We have also initiated a Solid Liquid Waster Management project with for making selected Gram Panchayats ODF Plus.

In solidarity with the Green Energy movement, we have installed 184 Solar lights at Renusagar, Lohardaga, Samri, Maliparbat, Taloja and Chakla.

SDG-9: Build resilient infrastructure:

Our infrastructure projects: connectivity, road repairs, community halls and assets, rest places, installation of solar lights, cement benches, construction of water tanks and installation of piped water supply, have bettered the lives of thousands of people. Of which 50% constitute the women populace.

Of the 622 villages we operate in, 104 villages have been slated to become model villages. Up until now, 38 villages have made the cut to be rated as model villages. Impact assessment studies by external agencies have certified/commended the transformation of these villages.

Accolades conferred:

Hindalco Industries Ltd.

- Sustainability Front Runner for Excellence in Sustainable Development by Frost & Sullivan

Hindalco, Renukoot

- CSR Box Impact Award for Integrated Rural Development Project (Project Unnati)
- IHW Council 7th CSR Impact Award for water conservation (Project Jal Sanchay)
- CSR Journal Excellence Award for Agriculture & Rural Development project (Project Unnati)

Mines Division, Lohardaga

- Certificate of Appreciation from Govt. of Jharkhand for Contributing towards TB free Jharkhand

Mahan Aluminium

- FAME National Award in Gold Category towards Excellence in Water Stewardship
- PRSI National Award 2023 (Third Prize) towards Best public awareness program

Birla Copper, Dahej

- UBS Forum CSR Award under the category of Best Skill Development Initiative (Project Astitva)

Hindalco, Renusagar

- FAME National Award in Platinum Category towards Best CSR Practices

Aditya Aluminium

- BCC & I Social Leadership Awards - 2023 (Runner Up) for Empowering Women

Utkal Alumina International Ltd.

- 10th National CSR Times Award in Livelihood Project category (Project Udyamee)
- IHW Council 7th CSR Impact Award for Sustainable Livelihood Project (Project UANAT)
- India CSR Award for Enterprise Development (Project Udyamee)
- Sambad CSR Platinum Award under “Brands of Odisha Pride of India Award 2024”

Our Investment:

For the year 2023-24, we have spent 45.92 crores for other than ongoing projects alongside a commitment of ₹ 48.93 cr towards ongoing projects. Additionally, ₹ 34 Crores were disbursed through our Subsidiaries. We have mobilised ₹ 105.65 crores through the various schemes of the Government, acting as catalysts for the community including the subsidiaries.

Our Board of Directors, our Management and our colleagues across Hindalco are committed to enrich lives of the underprivileged and continue to be a force for good in the locales in which we operate and beyond.

Business Responsibility & Sustainability Report

SECTION A: GENERAL DISCLOSURES

I. Details of the listed entity

1 Corporate Identity Number (CIN) of the Listed Entity: L27020MH1958PLC011238

2 Name of the Listed Entity: HINDALCO INDUSTRIES LIMITED

3 Year of incorporation: 15-12-1958

4 Registered office address: 21st Floor, One Unity Center, Senapati Bapat Marg, Prabhadevi, Mumbai Maharashtra- 400013 w.e.f. 1st December, 2023

5 Corporate address: 7th Floor, Birla Centurion, Pandurang Budhkar Marg, Worli, Mumbai - 400030.

6 E-mail: hilinvestors@adityabirla.com

7 Telephone: +91 022 6947 7000/6947 7150

8 Website: www.hindalco.com

9 Financial year for which reporting is being done: 01-04-2023 to 31-03-2024

10 Name of the Stock Exchange(s) where shares are listed: BSE Limited, National Stock Exchange of India Ltd. (NSE India), Luxembourg Stock Exchange (LuxSE) [Global Depository Receipts listing]

11 Paid-up Capital: As on 31st March, 2024 : 2,24,72,16,523

12 Name and contact details (telephone, email address) of the person who may be contacted in case of any queries on the BRSR report: Name: Geetika Anand, Contact No.: 022 6947 7000/6947 7150, Email ID: hilinvestors@adityabirla.com

13 Reporting boundary - Are the disclosures under this report made on a standalone basis (i.e., only for the entity) or on a consolidated basis (i.e., for the entity and all the entities which form a part of its consolidated financial statements, taken together): The disclosures made under this report are on a Standalone basis. Certain values of FY 2022-23 have been restated for completeness and comparability of information for the current year and previous year.

14 Name of assurance provider: Bureau Veritas India Pvt. Ltd.

15 Type of assurance obtained: Reasonable Assurance for BRSR Core and Limited Assurance for Select Indicators (refer Assurance statement)

II. Products/services

16. Details of business activities (accounting for 90% of the turnover):

S. No.	Description of Main Activity	Description of Business Activity	% of Turnover of the entity
1	Aluminium	Our Indian aluminium operations are integrated and consist of bauxite mining, alumina refining, smelting and converting primary metal into value-added products. We have dedicated sources for critical raw materials such as bauxite, power and coal. Our finished products include alumina, primary aluminium in the form of ingots, billets and wire rods, value-added products such as rolled products, extrusions and foils. Metallurgical alumina is used for our own captive needs. Chemical alumina and hydrates are used in range of industries including water treatment, fillers in cables and plastics, refractories and ceramics, glass among others.	41%
2	Copper	Hindalco produces LME grade copper cathodes, continuous cast copper rods in various sizes, and precious metals like gold and silver. Hindalco is one of the major manufacturers of 19.6mm diameter copper rods, which are used for railway electrification. The co-product, sulphuric acid, is partly utilised to produce phosphoric acid and fertilisers like di-ammonium phosphate (DAP).	59%

17. Products/Services sold by the entity (accounting for 90% of the entity's Turnover):

S. No.	Product/Service	NIC Code	% of total Turnover contributed
1	Aluminium	24202	41%
2	Copper	24201	59%

III. Operations

18. Number of locations where plants and/or operations/offices of the entity are situated:

Location	Number of plants	Number of offices	Total
National	20	-	20
International	-	-	-

19. Markets served by the entity:

a. Number of locations

Locations	Number
National (No. of States)	11
International (No. of Countries)	-

b. What is the contribution of exports as a percentage of the total turnover of the entity?

22%

c. A brief on type of customers

The response to this question is provided in the Markets Served section of the Integrated Annual Report FY 2023-24. Page no. 24

IV. Employees

20. Details as at the end of Financial Year:

a. Employees and workers (including differently abled):

The response to this question is provided in the Talent Attraction and Management sub-section in the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 91

b. Differently abled Employees and workers:

The response to this question is provided in the Diversity, Equity and Inclusion sub-section in the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 101

21. Participation/Inclusion/Representation of women

	Total	No. and percentage of Females	
	(A)	No. (B)	% (B / A)
Board of Directors	10	2	20%
Key Management Personnel	3	1	33%

Business Responsibility & Sustainability Report

22. Turnover rate for permanent employees and workers (Disclose trends for the past 3 years)

The response to this question is provided in the Recognition and Retention - Celebrating Talent sub-section in the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 98

V Holding, Subsidiary and Associate Companies (including joint ventures)

(a) Names of holding / subsidiary / associate companies / joint ventures

Sr. No.	Name of the holding / subsidiary / associate companies / joint ventures (A)	Indicate whether holding/ Subsidiary/ Associate/ Joint Venture	% of shares held by listed entity	Does the entity indicated at column A, participate in the Business Responsibility initiatives of the listed entity? (Yes/No)
1	Minerals and Minerals Limited	Subsidiary	100%	No
2	Renuka Investments and Finance Limited	Subsidiary	100%	No
3	Renukeshwar Investments and Finance Limited	Subsidiary	100%	No
4	Suvas Holdings Limited	Subsidiary	74%	No
5	Utkal Alumina International Limited	Subsidiary	100%	No
6	Hindalco-Almex Aerospace Limited	Subsidiary	97%	No
7	Lucknow Finance Company Limited	Subsidiary	100%	No
8	Dahej Harbour and Infrastructure Limited	Subsidiary	100%	No
9	East Coast Bauxite Mining Co.Pvt. Ltd.	Subsidiary	74%	No
10	Utkal Alumina Social Welfare Foundation	Subsidiary	100%	No
11	Kosala Livelihood and Social Foundation	Subsidiary	100%	No
12	Birla Copper ASOJ Private Limited (Erstwhile Ryker Base Pvt Ltd)	Subsidiary	100%	No
13	A.V. Minerals (Netherlands) N.V.	Subsidiary	100%	No
14	Novelis Inc.	Subsidiary	100%	No
15	4260848 Canada Inc.	Subsidiary	100%	No
16	4260856 Canada Inc.	Subsidiary	100%	No
17	Novelis South America Holdings LLC	Subsidiary	100%	No
18	Novelis Corporation	Subsidiary	100%	No
19	Novelis de Mexico SA de CV	Subsidiary	100%	No
20	Novelis do Brasil Ltda.	Subsidiary	100%	No
21	Novelis Korea Limited	Subsidiary	100%	No
22	Novelis UK Ltd	Subsidiary	100%	No
23	Novelis Services Limited	Subsidiary	100%	No
24	Novelis Deutschland GmbH	Subsidiary	100%	No
25	Novelis Switzerland SA	Subsidiary	100%	No
26	Novelis Italia SPA	Subsidiary	100%	No
27	Novelis Aluminium Holding Unlimited Company	Subsidiary	100%	No
28	Novelis PAE SAS	Subsidiary	100%	No
29	Novelis Europe Holdings Limited	Subsidiary	100%	No
30	Novelis AG	Subsidiary	100%	No
31	Novelis Holdings Inc.	Subsidiary	100%	No
32	8018227 Canada Inc.	Subsidiary	100%	No
33	Novelis Sheet Ingot GmbH	Subsidiary	100%	No
34	Novelis MEA Ltd	Subsidiary	100%	No
35	Novelis (Shanghai) Aluminum Trading Company	Subsidiary	100%	No
36	Novelis (China) Aluminum Products Co., Ltd.	Subsidiary	100%	No
37	Novelis Vietnam Company Limited	Subsidiary	100%	No
38	Novelis Services (North America) Inc.	Subsidiary	100%	No
39	Novelis Services (Europe) Inc.	Subsidiary	100%	No
40	Brecha Energetica Ltda	Subsidiary	100%	No
41	Novelis Global Employment Organization, Inc.	Subsidiary	100%	No
42	Novelis Deutschland Holding GmbH	Subsidiary	100%	No
43	Novelis Koblenz GmbH	Subsidiary	100%	No
44	Novelis Casthouse Germany GmbH	Subsidiary	100%	No
45	Novelis ALR Aluminum Holdings Corporation	Subsidiary	100%	No
46	Novelis ALR International, Inc.	Subsidiary	100%	No
47	Novelis ALR Rolled Products, Inc.	Subsidiary	100%	No
48	Novelis ALR Asset Management Corporation	Subsidiary	100%	No
49	Novelis ALR Rolled Products, LLC	Subsidiary	100%	No
50	Novelis ALR Rolled Products Sales Corporation	Subsidiary	100%	No
51	Novelis ALR Recycling of Ohio, LLC	Subsidiary	100%	No
52	Novelis ALR Aluminum LLC	Subsidiary	100%	No

Business Responsibility & Sustainability Report

Sr. No.	Name of the holding / subsidiary / associate companies / joint ventures (A)	Indicate whether holding/ Subsidiary/ Associate/ Joint Venture	% of shares held by listed entity	Does the entity indicated at column A, participate in the Business Responsibility initiatives of the listed entity? (Yes/No)
53	Novelis ALR Aluminum-Alabama LLC	Subsidiary	100%	No
54	Novelis Netherlands B.V.	Subsidiary	100%	No
55	Aleris Switzerland GmbH	Subsidiary	100%	No
56	Aleris Aluminum Japan, Ltd.	Subsidiary	100%	No
57	Aleris Asia Pacific International (Barbados) Ltd.	Subsidiary	100%	No
58	Aleris Asia Pacific Limited	Subsidiary	100%	No
59	Novelis Aluminum (Zhenjiang) Co., Ltd.	Subsidiary	100%	No
60	Novelis Ventures LLC	Subsidiary	100%	No
61	Hindalco Kabushiki Kaisha	Subsidiary	100%	No
62	Ayana Renewable Power Four Private Limited*	Associate*	26%	No
63	Aditya Birla Renewable Subsidiary Limited (ABRSL)	Associate	26%	No
64	Aditya Birla Renewables Utkal Limited (ABRUL)	Associate	26%	No
65	Aditya Birla Renewable Solar Limited (ABRSolar)	Associate	26%	No
66	Aditya Birla Science and Technology Company Private Limited	Associate	49%	No
67	France Aluminum Recyclage SA	Associate	20%	No
68	Big Blue Technologies Inc.*	Associate	7%	No
69	Hydromine Global Minerals (GMBH) Limited	Joint Venture	45%	No
70	MNH Shakti Limited	Joint Venture	15%	No
71	Mahan Coal Limited	Joint Operations	50%	No
72	Tubed Coal Mines Limited	Joint Operation	60%	No
73	Aluminium Norf GmBH	Joint Operations	50%	No
74	Logan Aluminum Inc.	Joint Operations	40%	No
75	Ulsan Aluminium Ltd.	Joint Operation	50%	No
76	Aluinfra Services SA	Joint Operation	50%	No

*Ayana Renewable Power Four Private Limited became Associate on 5th February, 2024, and Big Blue Technologies Inc. became Associate of Novelis Inc. on 11th October, 2024.

Note 1: During FY 2023-24, the following companies were dissolved, namely, Novelis Aluminium Beteiligungs GmbH, Aleris Holding Canada ULC, Aleris Aluminum UK Limited, Aleris (Shanghai) Trading Co., Ltd., and Deutsche Aluminium Verpackung Recycling GmbH.

VI.	CSR Details	Response
23.	(i) Whether CSR is applicable as per section 135 of Companies Act, 2013: (Yes/No):	Yes
	(ii) Turnover (in Rs.)	830,085,713,642
	(iii) Net worth (in Rs.)	637,069,207,056

VII. Transparency and Disclosures Compliances

24. Complaints/Grievances on any of the principles (Principles 1 to 9) under the National Guidelines on Responsible Business Conduct:

Stakeholder group from whom complaint is received	Grievance Redressal Mechanism in Place (Yes/ No) (If Yes, then provide web-link for grievance redress policy)	Current Financial Year (FY 2023-24)			Previous Financial Year (FY 2022-23)		
		Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks	Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks
Communities	The details of the Grievance Redressal Mechanism is given in Community Grievance Section in the Hindalco Integrated Annual Report FY 2023-24. Page no. 182	12	0	All complaints are addressed through our Grievance Redressal Mechanism	1,314	54	All complaints are addressed through our Grievance Redressal Mechanism
Investors (other than shareholders)	The details of the Grievance Redressal Mechanism is given in Corporate Governance section in the Hindalco Integrated Annual Report FY 2023-24.	35	1	Complaints relating to Transfers, Transmissions Dividend, Interest, Redemption, Demat – Remat, Rights Issue and Non-Receipt of Annual report etc.	7	0	Complaints relating to Transfers, Transmissions Dividend, Interest, Redemption, Demat – Remat, Rights Issue and Change of Address etc.
Shareholders	The details of the Grievance Redressal Mechanism is given in Corporate Governance section in the Hindalco Integrated Annual Report FY 2023-24	0	0	NA	0	0	NIL
Employees and workers	The details of the Grievance Redressal Mechanism is given in Human Rights Section in the Hindalco Integrated Annual Report FY 2023-24. Page no. 1118	10	4	Hindalco has zero tolerance for sexual harassment at workplace and has adopted a Policy on prevention, prohibition and redressal of sexual harassment at workplace in line with the provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and the Rules thereunder for prevention and redressal of complaints of sexual harassment at workplace	9	0	Hindalco has zero tolerance for sexual harassment at workplace and has adopted a Policy on prevention, prohibition and redressal of sexual harassment at workplace in line with the provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and the Rules thereunder for prevention and redressal of complaints of sexual harassment at workplace

Business Responsibility & Sustainability Report

Stakeholder group from whom complaint is received	Grievance Redressal Mechanism in Place (Yes/ No) (If Yes, then provide web-link for grievance redress policy)	Current Financial Year (FY 2023-24)			Previous Financial Year (FY 2022-23)		
		Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks	Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks
Customers	The details of the Grievance Redressal Mechanism is given in Customer Grievance Section in the Hindalco Integrated Annual Report FY 2023-24. Page no. 206	733	75	All complaints are addressed through our Grievance Redressal Mechanism	442*	15*	All complaints are addressed through our Grievance Redressal Mechanism
Value Chain Partners	The details of the Grievance Redressal Mechanism is given in Responsible Value Chain Section in the Hindalco Integrated Annual Report FY 2023-24. Page no. 201	0	NIL		0	NIL	NIL
Other (please specify)		0	NIL		NIL	NIL	NIL

* The Number of complaints filed by customers during the FY 2022-23 has been restated to cover all our businesses.

26. Overview of the entity's material responsible business conduct issues

Please indicate material responsible business conduct and sustainability issues pertaining to environmental and social matters that present a risk or an opportunity to your business, rationale for identifying the same, approach to adapt or mitigate the risk along-with its financial implications, as per the following format

S. No.	Material issue identified	Indicate whether risk or opportunity (R/O)	Rationale for identifying the risk / opportunity	In case of risk, approach to adapt or mitigate	Financial implications of the risk or opportunity (Indicate positive or negative implications)
1	Energy and GHG Emissions Management	R	Coal is one of the primary sources of energy for Indian operations. Being a continuous process industry,with dependence on coal, it is challenging to replace coal with any alternate material in the near-term, making it cost intensive.	• Reducing the dependency on nonrenewable energy sources by adding a cumulative 173 MW of renewable energy capacity (as on 31st March 2024). • We are also evaluating the feasibility of other energy sources including increasing the use of biomass in power plants. • We have also been working on carbon capture as well as energy storage.	Negative Implications
2	Waste and Hazardous Waste Management	R	To protect the environment, it is essential to properly dispose of waste from operations. Some of the waste is stored in a secure area, for which substantial land is required. The availability of land is becoming difficult and the storage of waste in the ponds is also subject to its own risks. For our operations, compliance with the evolving regulatory requirements in a specified time frame shall be a prerequisite.	• We have set up a year-on-year target of 5% for recycling and reusing generated waste, with the aim to achieve zero waste to landfill by 2050. We have been using green-technology innovation in waste reuse and metal recycling across our India operations. • We have taken several initiatives in partnerships to reuse bauxite residue for backfilling, road building and establishing long-term contracts with cement and road developers. These initiatives are being monitored regularly.	Negative Implications
3	Water Management	R	Natural resource depletion is a risk across the world. We depend on the supply of coal, bauxite, copper concentrate, water and so forth. Four of our plants are in the water stress area. This can have a lasting impact on our immediate environment and operations.	• Implementation of measures such as reusing and recycling of used water will aid in reducing dependency on freshwater. Thus, ensuring that the needs of the community are not compromised • We have planned several initiatives for water recycling and rainwater harvesting at various plants. Our aim is to achieve zero liquid discharge and water positivity across mining and downstream verticals by 2025.	Negative Implications
4	Air Emissions	R	Our non-GHG air emissions result from both fuel combustion and production processes. Our aluminium smelting process contributes to fluoride emissions while the burning of fossil fuels contributes to Oxides of Sulphur (Sox), Oxides of Nitrogen (NOx) and Particulate Matter (PM).	• Adoption and implementation of innovative technologies along with reduced coal consumption will facilitate reducing air emissions • We have installed Flue Gas Desulphurisation (FGD) units at Mahan, Aditya, and are in the process of installing at Renusagar.	Negative Implications
5	Biodiversity	R	Our operations depend on coal and bauxite mines. Further, many of our locations are situated near areas of high biodiversity. Proper management of biodiversity around our operations is critical for continued operations at our locations.	• We are taking up several initiatives towards conservation of biodiversity, including conducting risk assessments and development of biodiversity management plans.	Negative Implications
6	Occupational Health and Safety	R	Health and safety is of utmost importance. However, we face injuries due to safety related risks in our manufacturing processes.	• Implementation of various initiatives and programmes to increase health and safety related awareness among work and reduce risk of hazards and accidents, such as 'Serious Injuries and Fatality (SIF) Prevention Programme', a unique initiative which standardises contractor safety management processes across our operations. • We are incorporating digitalisation to reduce human intervention.	Negative Implications
7	Community Relations	O	To actively contribute to the social and economic development of underserved communities, lifting the burden of poverty, and helping bring in inclusive growth in sync with the UN Sustainable Development Goals.	NA	Positive Implications
8	Economic Performance	O	We have been able to achieve our deleveraging target in a timely manner leading to a strong balance sheet. This has resulted in increased trust between the shareholders and lenders. We have a robust approach to the capital allocation framework. Further, our focus has been on maximising shareholder return by prioritising our growth capital expenditure towards value added downstream expansion projects.	NA	Positive Implications

Business Responsibility & Sustainability Report

S. No.	Material issue identified	Indicate whether risk or opportunity (R/O)	Rationale for identifying the risk / opportunity	In case of risk, approach to adapt or mitigate	Financial implications of the risk or opportunity (Indicate positive or negative implications)
9	Compliance Management	R	In the metals and mining industry, regulations play an important role in shaping the business. Frequent regulatory changes give rise to uncertainty in the surrounding environment.	• We continuously engage with policy makers and work on policy advocacy at various levels. We also participate in activities organised by industry associations activities. This helps us in engaging with the policy makers and prepare us for any regulatory changes	Negative Implications
10	Market Presence	O	Increased demand for aluminium in various sectors gives Hindalco an opportunity to expand its market presence.	NA	Positive Implications
11	Supply Chain Transformation	O	Sustainable supply chain initiatives, effective use of natural resources, decarbonisation, ethical sourcing, and fair trade will enable risk reduction, increased innovation, and even stronger returns on investment.	NA	Positive Implications

SECTION B: MANAGEMENT AND PROCESS DISCLOSURES

This section is aimed at helping businesses demonstrate the structures, policies and processes put in place towards adopting the NGRBC Principles and Core Elements.

Disclosure Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
Policy and management processes									
1.									
a. Whether your entity's policy/policies cover each principle and its core elements of the NGRBCs. (Yes/No)					Yes				
b. Has the policy been approved by the Board? (Yes/No)					Yes				
c. Web Link of the Policies, if available	Code of Conduct for BODs & SMP, Hindalco Corporate Principles & Code of Conduct and Hindalco Supplier Code of Conduct. The web link to the policies is given here: hindalco-code-conduct.pdf hindalco-code-of-conduct-BODs-SMP.pdf annexure-IVa-hindalco-supplier-code-conduct.pdf	Sustainability policy and Environmental Policy. The web link to the policies is given here hindalco-environment-policy.pdf hindalco-sustainability-policy.pdf	Safety and Occupational Health Policy. The web link to the policies is given here safety-and-occupational-health-policy.pdf (hindalco.com)	Aditya Birla Stakeholder Engagement Policy and Corporate Social Responsibility Policy. The web link to the policies is given Stakeholder Engagement Policy. pdf (adityabirla.com) hindalco-csr-policy.pdf	Human Rights Policy. The web link to the policies is given: hindalco.com/upload/pdf/human-right-policy.pdf	Environment Policy. The web link to the policies is given hindalco-environment-policy.pdf	Code of Conduct for BODs & SMP, Hindalco Corporate Principles & Code of Conduct and Hindalco Supplier Code of Conduct. The web link to the policies is given here: hindalco-code-conduct.pdf hindalco-code-of-conduct-BODs-SMP.pdf annexure-IVa-hindalco-supplier-code-conduct.pdf	Corporate Social Responsibility Policy and Rehabilitation, Resettlement and Protection of Indigenous People Policy. The web link to the policies is given here: hindalco-csr-policy.pdf hindalco.com/upload/pdf/IPRR-policy.pdf	Code of Conduct for BODs & SMP, Hindalco Corporate Principles & Code of Conduct, Hindalco Supplier Code of Conduct, Aditya Birla Stakeholder Engagement Policy and Information Security Policy. The web link to the policies is given here: hindalco-code-conduct.pdf hindalco-code-of-conduct-BODs-SMP.pdf Stakeholder Engagement Policy.pdf (adityabirla.com) annexure-IVa-hindalco-supplier-code-conduct.pdf information-security-policy. pdf (hindalco.com)

Disclosure Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
2. Whether the entity has translated the policy into procedures. (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Do the enlisted policies extend to your value chain partners? (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Name of the national and international codes/ certifications/labels/ standards (e.g., Forest Stewardship Council, Fairtrade, Rainforest Alliance, Trustea) standards (e.g., SA 8000, OHSAS, ISO, BIS) adopted by your entity and mapped to each principle.	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77	Details in the Integrated Robust Systemssection of the Integrated Annual Report FY 2023-24. Page no. 77
5. Specific commitments, goals and targets set by the entity with defined timelines, if any.	NA	NA	The targets against the principle are provided in the Occupation Health & Safety sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 119	NA	The targets against the principle are provided in the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 115	The targets against the principle are provided in the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 145,149,156, 165 and 174	NA	NA	NA
6. Performance of the entity against the specific commitments, goals and targets along-with reasons in case the same are not met.	NA	NA	The performance against the targets is given in the Human Capital section of Hindalco Integrated Annual Report FY 2023-24. Page no. 119	NA	The performance against the targets is given in the Human Capital section of Hindalco Integrated Annual Report FY 2023-24. Page no. 115	The performance against the targets is given in the Natural Capital section of Hindalco Integrated Annual Report FY 2023-24. Page no. 138 to 177	NA	NA	NA
Governance, leadership, and oversight									
7. Statement by director responsible for the business responsibility report, highlighting ESG related challenges, targets and achievements (listed entity has flexibility regarding the placement of this disclosure)									
The statement by the director responsible for business responsibility report is given in Message from the Managing Director in Hindalco Integrated Annual Report FY 2023-24. Page no. 33									
8. Details of the highest authority responsible for implementation and oversight of the Business Responsibility policy (ies)	The Risk Management & Environment Social and Governance (ESG) Committee of the Board is responsible for the implementation and oversight of the Business Responsibility policies								
9. Does the entity have a specified Committee of the Board/ Director responsible for decision making on sustainability related issues? (Yes / No). If yes, provide details.	The Risk Management & Environment Social and Governance (ESG) Committee is responsible for decision making on sustainability related issues. The details of the same are given in Environment Management sub-section of the Natural Capital section of the Hindalco Integrated Annual Report FY 2023-24. Page no. 141								

Business Responsibility & Sustainability Report

10. Details of Review of NGRBCs by the Company:

Subject for Review	Indicate whether review was undertaken by Director / Committee of the Board/ Any other Committee									Frequency (Annually/ Half yearly/ Quarterly/ Any other – please specify)								
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P1	P2	P3	P4	P5	P6	P7	P8	P9
Performance against above policies and follow up action	Committee of the Board				Any other Committee	Committee of the Board				Quarterly								
Compliance with statutory requirements of relevance to the principles, and, rectification of any non-compliances	P1	P2	P3	P4	P5	P6	P7	P8	P9	P1	P2	P3	P4	P5	P6	P7	P8	P9
	Director			Committee of the Board	Director	Committee of the Board		Director		Quarterly								
11. Has the entity carried out independent assessment/ evaluation of the working of its policies by an external agency? (Yes/No). If yes, provide name of the agency.										P1	P2	P3	P4	P5	P6	P7	P8	P9
										No, however, all policies are reviewed internally by the audit committee	Yes BSI	Yes BSI and Factory Inspector	Yes, Secretarial Auditor	Yes Factory Inspector	Yes BSI	No, however, all policies are reviewed internally by the audit committee	No, however, all policies are reviewed internally by the audit committee	Yes, BSI

12. If answer to question (1) above is "No" i.e. not all Principles are covered by a policy, reasons to be stated:									
Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
The entity does not consider the principles material to its business (Yes/No)	NA								
The entity is not at a stage where it is in a position to formulate and implement the policies on specified principles (Yes/No)									
The entity does not have the financial or/human and technical resources available for the task (Yes/No)									
It is planned to be done in the next financial year (Yes/No)									
Any other reason (please specify)									

SECTION C: Principle wise performance

This section is aimed at helping entities demonstrate their performance in integrating the Principles and Core Elements with key processes and decisions. The information sought is categorized as "Essential" and "Leadership". While the essential indicators are expected to be disclosed by every entity that is mandated to file this report, the leadership indicators may be voluntarily disclosed by entities which aspire to progress to a higher level in their quest to be socially, environmentally, and ethically responsible.

Principle 1: Businesses should conduct and govern themselves with integrity, and in a manner that is Ethical, Transparent and Accountable.

Essential Indicators

1. **Percentage coverage by training and awareness programmes on any of the principles during the financial year**

   The response to this question is provided in the Human Capital Development sub-section in the Human Capital section of the Integrated Annual Report FY 2023-24. Page No. 105

2. **Details of fines / penalties /punishment/ award/ compounding fees/ settlement amount paid in proceedings (by the entity or by Directors / KMPs) with regulators/ law enforcement agencies/ judicial institutions, in the financial year, in the following format:**

   (Note: the entity shall make disclosures on the basis of materiality as specified in Regulation 30 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 and as disclosed on the entity's website):

	Monetary				
	NGBRC Principle	Name of the regulatory/ enforcement agencies/ judicial institutions	Amount (in INR)	Brief of the Case	Has an appeal been preferred? (Yes/No)
Penalty/Fine	0	0	0	0	0
Settlement	0	0	0	0	0
Compounding Fee	0	0	0	0	0
	Non-Monetary				
	NGBRC Principle	Name of the regulatory/ enforcement agencies/ judicial institutions	Amount (in INR)	Brief of the Case	Has an appeal been preferred? (Yes/No)
Imprisonment	0	0	0	0	0
Punishment	0	0	0	0	0

3. **Of the instances disclosed in Question 2 above, details of the Appeal/ Revision preferred in cases where monetary or non-monetary action has been appealed**

Case Details	Name of the regulatory/enforcement agencies/judicial institutions
0	0

4. **Does the entity have an anti-corruption or anti-bribery policy? If yes, provide details in brief and if available, provide a web-link to the policy.**

   Yes, aml-abac-policy-2023.pdf (hindalco.com)

   Our Code of Conduct also provides guidelines towards anti-corruption and anti-bribery practices. The code of conduct is available at: https://www.hindalco.com/upload/pdf/hindalco-code-conduct.pdf

5. **Number of Directors/KMPs/employees/workers against whom disciplinary action was taken by any law enforcement agency for the charges of bribery/ corruption:**

	FY 2023-24 (Current Financial year)	FY 2022-23 (Previous Financial year)
Directors	0	0
KMPs	0	0
Employees	0	0
Workers	0	0

Business Responsibility & Sustainability Report

6. **Details of complaints with regard to conflict of interest**

	FY 2023-24		FY 2022-23	
	Number	Remarks	Number	Remarks
Number of complaints received in relation to issues of Conflict of Interest of the Directors	0	0	0	0
Number of complaints received in relation to issues of Conflict of Interest of the KMPs	0	0	0	0

7. **Provide details of any corrective action taken or underway on issues related to fines / penalties / action taken by regulators/ law enforcement agencies/ judicial institutions, on cases of corruption and conflicts of interest.**

   NA

8. **Number of days of accounts payables ((Accounts payable *365) / Cost of goods/services procured) in the following format:**

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Number of days of accounts payable	53.18	64.48

9. **Open-ness of business. Provide details of concentration of purchases and sales with trading houses, dealers, and related parties along-with loans and advances & investments, with related parties, in the following format*:**

Parameter	Metrics	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Concentration of purchases	a. Purchases from trading houses as a % of total purchases	46.92%	37.86%
	b. Number of trading houses where purchases are made from	24	24
	c. Purchases from top 10 trading houses as % of total purchases from trading houses	88.95%	80.17%
Concentration of sales	a. Sales to dealers/ distributors as % of total sales	20.20%	25.47%
	b. Number of dealers / distributors to whom sales are made	1,215	910
	c. Sales to top 10 dealers / distributors as % of total sales to dealers / distributors	68.16%	69.40%
Share of RPTs in	Purchases (Purchases with related parties/ Total Purchases)	6.93%	7.39%
	Sales (Sales to related parties/ Total Sales)	0.43%	0.38%
	Loans & Advances (Loans & Advances given to related parties/ Total Loans & Advances)	8.45%	11.37%
	Investments (Investments in related parties/ Total Investments)	53.54%	53.61%

* The data presented against requirements of indicators in this section, includes close to 90% of our purchases by value. Considering volume of data to be analysed and multiple locations of our operations, we plan to improve coverage to 100% progressively in coming years.

Leadership Indicators

1. **Awareness programmes conducted for value chain partners on any of the Principles during the financial year:**

   The response to this question has been covered in the Responsible Value Chain sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page No. 201

2. **Does the entity have processes in place to avoid/ manage conflict of interests involving members of the Board? (Yes/No) If Yes, provide details of the same.**

   Yes, the response to this question has been covered in the Corporate Governance Report of the Integrated Annual Report FY 2023-24

PRINCIPLE 2 Businesses should provide goods and services in a manner and safe

Essential Indicators

1. **Percentage of R&D and capital expenditure (capex) investments in specific technologies to improve the environmental and social impacts of product and processes to total R&D and capex investments made by the entity, respectively.**

   The response to this question has been covered in the Intellectual Capital section and the Environment Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 141

2. **A. Does the entity have procedures in place for sustainable sourcing? – Yes**

   B. If yes, what percentage of inputs were sourced sustainably?

   The response to this question has been covered in the Responsible Value Chain sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 197

3. **Describe the processes in place to safely reclaim your products for reusing, recycling, and disposing at the end of life, for (a) Plastics (including packaging) (b) E-waste (c) Hazardous waste and (d) other waste.**

   The response to this question has been covered in the Waste Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 164

4. **Whether Extended Producer Responsibility (EPR) is applicable to the entity's activities (Yes / No). If yes, whether the waste collection plan is in line with the Extended Producer Responsibility (EPR) plan submitted to Pollution Control Boards? If not, provide steps taken to address the same.**

   The response to this question has been covered in the Non-Hazardous Waste in Waste Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 169

Business Responsibility & Sustainability Report

Leadership Indicators

1. **Has the entity conducted Life Cycle Perspective / Assessments (LCA) for any of its products (for manufacturing industry) or for its services (for service industry)? If yes, provide details in the following format?**

NIC Code	Name of the product/ service	% of total turnover contributed	Boundary for which the life cycle perspective/ assessment was conducted	Whether conducted by independent external agency (Yes/No)	Results communicated in public domain (Yes/ No) If yes, provide the web-link
24202	Aluminium, chemical and downstream products	41.00%	Plant boundary	Yes	Yes (Part of Intellectual Capital of the Integrated Report FY 2023-24. Page no. 128)
24201	Copper products	59.00%	Plant boundary	Yes	Yes (Part of Intellectual Capital of the Integrated Report FY 2023-24. Page no. 128)

2. **If there are any significant social or environmental concerns and/or risks arising from production or disposal of your products / services, as identified in the Life Cycle Perspective / Assessments (LCA) or through any other means, briefly describe the same along-with action taken to mitigate the same.**

Name of Product/Service	Description of the risk/concern	Action Taken
NA	NA	NA

3. **Percentage of recycled or reused input material to total material (by value) used in production (for manufacturing industry) or providing services (for service industry).**

   The response to this question has been covered in the Raw Material Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 163

4. **Of the products and packaging reclaimed at end of life of products, amount (in metric tonnes) reused, recycled, and safely disposed, as per the following format:**

   The response to this question has been covered in the Waste Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 164

5. **Reclaimed products and their packaging materials (as percentage of products sold) for each product category.**

   The response to this question has been covered in the Waste Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 164 to 169.

Leadership Indicators

1. **Has the entity conducted Life Cycle Perspective / Assessments (LCA) for any of its products (for manufacturing industry) or for its services (for service industry)? If yes, provide details in the following format?**

NIC Code	Name of the product/service	% of total turnover contributed	Boundary for which the life cycle perspective/ assessment was conducted	Whether conducted by independent external agency (Yes/ No)	Results communicated in public domain (Yes/ No) If yes, provide the web-link
24202	Aluminium, chemical and downstream products	41.00%	Plant boundary	Yes	Yes (Part of Intellectual Capital of the Integrated Report FY 2023-24. Page no. 128)
24201	Copper products	59.00%	Plant boundary	Yes	Yes (Part of Intellectual Capital of the Integrated Report FY 2023-24. Page no. 128)

2. **If there are any significant social or environmental concerns and/or risks arising from production or disposal of your products / services, as identified in the Life Cycle Perspective / Assessments (LCA) or through any other means, briefly describe the same along-with action taken to mitigate the same.**

Name of Product/Service	Description of the risk/concern	Action Taken
NA	NA	NA

3. **Percentage of recycled or reused input material to total material (by value) used in production (for manufacturing industry) or providing services (for service industry).**

   The response to this question has been covered in the Raw Material Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 163

4. **Of the products and packaging reclaimed at end of life of products, amount (in metric tonnes) reused, recycled, and safely disposed, as per the following format:**

   The response to this question has been covered in the Waste Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 164

5. **Reclaimed products and their packaging materials (as percentage of products sold) for each product category.**

   The response to this question has been covered in the Waste Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 164 to 169

PRINCIPLE 3 Businesses should respect and promote the well-being of all employees, including those in their value chains

Essential Indicators

1. a. **Details of measures for the well-being of employees:**

   The response to this question has been covered in the Employee Well-Being sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 112

Business Responsibility & Sustainability Report

b. **Details of measures for the well-being of workers:**

The response to this question has been covered in the Employee Well-Being sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 112.

c. **Spending on measures towards well-being of employees and workers (including permanent and other than permanent) in the following format**

The response to this question has been covered in the Employee Well-Being sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 112

2. **Details of retirement benefits, for Current Financial Year and Previous Financial Year.**

The response to this question has been covered in the Employee Well-Being sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 113

3. **Accessibility of workplaces**

Are the premises / offices of the entity accessible to differently abled employees and workers, as per the requirements of the Rights of Persons with Disabilities Act, 2016? If not, whether any steps are being taken by the entity in this regard.

The response to this question has been covered in the Diversity, Equity and Inclusion sub-section of the Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 101

4. **Does the entity have an equal opportunity policy as per the Rights of Persons with Disabilities Act, 2016? If so, provide a web-link to the policy.**

The response to this question has been covered in the Human Rights Policy and Corporate Principles and Code of Conduct, available at hindalco-code-conduct.pdf

5. **Return to work and Retention rates of permanent employees and workers that took parental leave.**

The response to this question has been covered in the Employee Well-Being sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 113

6. **Is there a mechanism available to receive and redress grievances for the following categories of employees and worker? If yes, give details of the mechanism in brief.**

The response to this question has been covered in the Human Rights sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 118

7. **Membership of employees and worker in association(s) or Unions recognized by the listed entity:**

The response to this question has been covered in the Human Rights sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 119

8. **Details of training given to employees and workers:**

The response to this question has been covered in the Human Capital Development sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 105 and 106

9. **Details of performance and career development reviews of employees and worker**

The response to this question has been covered in the Employee Well-being sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 97

10. **Health and safety management system:**

a. **Whether an occupational health and safety management system has been implemented by the entity? (Yes/ No). If yes, the coverage such system?**

The response to this question has been covered in the Occupational Health and Safety sub-section of Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 119

b. **What are the processes used to identify work-related hazards and assess risks on a routine and non-routine basis by the entity?**

The response to this question has been covered in the Hazard Identification and Risk Assessment and Occupational Health and Safety sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 121

c. **Whether you have processes for workers to report the work-related hazards and to remove themselves from such risks. (Yes/No)**

Yes, The response to this question has been covered in the Occupational Health and Safety sub-section of the Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 119 to 122

d. **Do the employees/ worker of the entity have access to non-occupational medical and healthcare services? (Yes/ No)**

Yes, The response to this question has been covered in the Occupational Health Services sub-section of the Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 122

11. **Details of safety related incidents, in the following format**

Yes, The response to this question has been covered in the Occupational Health Services sub-section of the Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 122

12. **Describe the measures taken by the entity to ensure a safe and healthy work place.**

The response to this question has been covered in the Occupational Health and Safety sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 122 and 123

13. **Number of Complaints on the following made by employees and workers:**

The response to this question has been covered in the Occupational Health and Safety sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 121

14. **Assessments for the year:**

The response to this question has been covered in the Occupational Health and Safety sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 121

15. **Provide details of any corrective action taken or underway to address safety-related incidents (if any) and on significant risks / concerns arising from assessments of health & safety practices and working conditions.**

The response to this question has been covered in the Occupational Health and Safety sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 122 and 123

Business Responsibility & Sustainability Report

Leadership Indicators

1. **Does the entity extend any life insurance or any compensatory package in the event of death of (A) Employees (Yes/No) (B) Workers (Yes/No).**

   Yes, for Employees and WorkersLife insurance coverage provided. Benefits on case-to-case basis and as per applicable local law

2. **Provide the measures undertaken by the entities to ensure that statutory dues have been deducted and deposited by the value chain partners.**

   The response to this question has been covered in Supplier Assessment Process sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 198

3. **Provide the number of employees / workers having suffered high consequence work-related injury / ill-health / fatalities (as reported in Q11 of Essential Indicators above), who have been rehabilitated and placed in suitable employment or whose family members have been placed in suitable employment:**

   The response to this question has been covered in the Occupational Health and Safety sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 122

4. **Does the entity provide transition assistance programs to facilitate continued employability and the management of career endings resulting from retirement or termination of employment? (Yes/ No)**

   Yes. The response to this question has been covered in the Employee wellbeing sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 119

5. **Details on assessment of value chain partners:**

   The response to this question has been covered in the Supplier assessment and development sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 198

6. **Provide details of any corrective actions taken or underway to address significant risks / concerns arising from assessments of health and safety practices and working conditions of value chain partners.**

   The response to this question has been covered in the Supplier assessment and development sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 198 and 199

PRINCIPLE 4: Businesses should respect the interests of and be responsive to all its stakeholders

Essential Indicators

1. **Describe the process for identifying key stakeholder groups of the entity.**

   The response to this question has been covered in the Stakeholder Engagement and Materiality Assessment section of the Integrated Annual Report FY 2023-24. Page no. 50.

2. **List stakeholder groups identified as key for your entity and the frequency of engagement with each stakeholder group.**

   The response to this question has been covered in the Stakeholder Engagement and Materiality Assessment section of the Integrated Annual Report FY 2023-24. Page no. 50

Leadership Indicators

1. **Provide the processes for consultation between stakeholders and the Board on economic, environmental, and social topics or if consultation is delegated, how is feedback from such consultations provided to the Board.**

   The response to this question has been covered in the Stakeholder Engagement and Materiality Assessment section of the Integrated Annual Report FY 2023-24. Page no. 50

2. **Whether stakeholder consultation is used to support the identification and management of environmental, and social topics (Yes / No). If so, provide details of instances as to how the inputs received from stakeholders on these topics were incorporated into policies and activities of the entity.**

   The response to this question has been covered in the Stakeholder Engagement and Materiality Assessment section of the Integrated Annual Report FY 2023-24. Page no. 50

3. **Provide details of instances of engagement with, and actions taken to, address the concerns of vulnerable/ marginalized stakeholder groups.**

   The response to this question has been covered in our CSR Strategy sub-section of the Social and Relationship Capital Section of the Integrated Annual Report FY 2023-24. Page no. 181 and 183

PRINCIPLE 5: Businesses should respect and promote human rights

Essential Indicators

1. **Employees and workers who have been provided training on human rights issues and policy(ies) of the entity, in the following format:**

   The response to this question has been covered in the Human Rights sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 117

2. **Details of minimum wages paid to employees and workers, in the following format:**

   The response to this question has been covered in the Human Rights sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 119

3. **Details of remuneration/salary/wages, in the following format:**

   a. **Median remuneration / wages:**

      The response to this question has been covered in the Human Rights sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 102

   b. **Gross wages paid to females as % of total wages paid by the entity, in the following format:**

      The response to this question has been covered in the Human Rights sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 102

4. **Do you have a focal point (Individual/ Committee) responsible for addressing human rights impacts or issues caused or contributed to by the business? (Yes/No)**

   Yes, the response to this question has been covered in the Human Rights sub-section of Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 114

5. **Describe the internal mechanisms in place to redress grievances related to human rights issues**

   The response to this question has been covered in the Human Rights sub-section of Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 118

Business Responsibility & Sustainability Report

6. **Number of Complaints on the following made by employees and workers:**

   The response to this question has been covered in the Human Rights sub-section of Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 118

7. **Complaints filed under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, in the following format:**

   The response to this question has been covered in the Human Rights sub-section of Human Capital Section of the Integrated Annual Report FY 2023-24 Page no. 118

8. **Mechanisms to prevent adverse consequences to the complainant in discrimination and harassment cases.**

   The response to this question is covered under our Prevention of Sexual Harassment at Workplace and Human Rights policy. The link to the policy is attached herewith https://www.hindalco.com/uplod/pdf/hindalco-posh-policy.pdf and human-right-policy.pdf (hindalco.com)

9. **Do human rights requirements form part of your business agreements and contracts? (Yes/No)**

   Yes, The response to this question has been covered in the Responsible Value Chain sub-section of Social Relationship Capital Section of the Integrated Annual Report FY 2023-24. Page no. 197

10. **Assessments for the year:**

    The response to this question has been covered in the Human Rights sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 115

11. **Provide details of any corrective actions taken or underway to address significant risks / concerns arising from the assessments at Question 9 above.**

    The response to this question has been covered in the Human Rights sub-section of Human Capital section of the Integrated Annual Report FY 2023-24 Page no. 115

Leadership Indicators

1. **Details of a business process being modified / introduced as a result of addressing human rights grievances/ complaints.**

   The response to this question has been covered in the Human Rights sub-section of Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 115

2. **Details of the scope and coverage of any Human rights due- diligence conducted.**

   The response to this question has been covered in the Human Rights sub-section of Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 115

3. **Is the premise/office of the entity accessible to differently abled visitors, as per the requirements of the Rights of Persons with Disabilities Act, 2016?**

   Yes, the response to this question has been covered in the Human Rights sub-section of Human Capital Section of the Integrated Annual Report FY 2023-24. Page no. 101

4. **Details on assessment of value chain partners:**

   The response to this question has been covered in the Supplier assessment and development sub-section of the Social and Relationship capital section of the Integrated Annual Report FY 2023-24. Page no. 199

5. **Provide details of any corrective actions taken or underway to address significant risks / concerns arising from the assessments at Question 4 above.**

   The response to this question has been covered in the Supplier assessment and development sub-section of the Social and Relationship capital section of the Integrated Annual Report FY 2023-24. Page no. 199

PRINCIPLE 6: Businesses should respect and make efforts to protect and restore the environment

Essential Indicators

1. **Details of total energy consumption (in Joules or multiples) and energy intensity, in the following format:**

   The response to this question has been covered in the Energy Consumption sub-section of the Natural capital section of the Integrated Annual Report FY 2023-24. Page no. 146

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt. Ltd. was engaged by the Company to provide an independent assurance for FY 2023-24

2. **Does the entity have any sites / facilities identified as designated consumers (DCs) under the Performance, Achieve and Trade (PAT) Scheme of the Government of India? (Y/N) If yes, disclose whether targets set under the PAT scheme have been achieved. In case targets have not been achieved, provide the remedial action taken, if any.**

   The response to this question has been covered in the Energy Management sub-section of Natural Capital Section of the Integrated Annual Report FY 2023-24. Page no. 152

3. **Provide details of the following disclosures related to water, in the following format:**

   The response to this question has been covered in the Water Management sub-section of Natural Capital Section of the Integrated Annual Report FY 2023-24. Page no. 157

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt Ltd was engaged by the Company to provide an independent assurance for FY 2023-24

4. **Provide the following details related to water discharged:**

   The response to this question has been covered in the Water Management sub-section of Natural Capital Section of the Integrated Annual Report FY 2023-24. Page no. 162

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt Ltd was engaged by the Company to provide an independent assurance for FY 2023-24

5. **Has the entity implemented a mechanism for Zero Liquid Discharge? If yes, provide details of its coverage and implementation.**

   The response to this question has been covered in the Water Management sub-section of Natural Capital Section of the Integrated Annual Report FY 2023-24. Page no. 155

Business Responsibility & Sustainability Report

6. **Please provide details of air emissions (other than GHG emissions) by the entity, in the following format:**

   The response to this question has been covered in the Air Emissions sub-section of Natural Capital Section of the Integrated Annual Report FY 2023-24. Page no. 154

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt Ltd was engaged by the Company to provide an independent assurance for FY 2023-24

7. **Provide details of greenhouse gas emissions (Scope 1 and Scope 2 emissions) & its intensity, in the following format:**

   The response to this question has been covered in the GHG Emissions sub-section of Natural Capital Section of the Integrated Annual Report FY 2023-24. Page no. 149

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt Ltd was engaged by the Company to provide an independent assurance for FY 2023-24

8. **Does the entity have any project related to reducing Green House Gas emission? If Yes, then provide details.**

   The response to this question has been covered in the Emissions Management sub-section of Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 152

9. **Provide details related to waste management by the entity, in the following format:**

   The response to this question has been covered in the Waste Management sub-section of Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 164

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt Ltd was engaged by the Company to provide an independent assurance for FY 2023-24

10. **Briefly describe the waste management practices adopted in your establishments. Describe the strategy adopted by your company to reduce usage of hazardous and toxic chemicals in your products and processes and the practices adopted to manage such wastes.**

    The response to this question has been covered in the Waste Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 164

11. **If the entity has operations/offices in/around ecologically sensitive areas (such as national parks, wildlife sanctuaries, biosphere reserves, wetlands, biodiversity hotspots, forests, coastal regulation zones etc.) where environmental approvals / clearances are required, please specify details in the following format:**

    No operations are in/ around ecologically sensitive areas

12. **Details of environmental impact assessments of projects undertaken by the entity based on applicable laws, in the current financial year:**

Name and brief details of project	EIA Notification No.	Date	Whether conducted by independent external agency (Yes / No)	Results communicated in public domain (Yes / No)	Relevant Web link
Nil	Nil	Nil	Nil	Nil	Nil

13. **Is the entity compliant with the applicable environmental law/ regulations/ guidelines in India; such as the Water (Prevention and Control of Pollution) Act, Air (Prevention and Control of Pollution) Act, Environment protection act and rules thereunder (Y/N). If not, provide details of all such non-compliances, in the following format:**

    The response to this question has been covered in the Environment Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 141

Leadership Indicators

1. **Water withdrawal, consumption and discharge in areas of water stress (in kilolitres):**

   For each facility / plant located in areas of water stress, provide the following information:

   (i) Name of the area

   (ii) Nature of operations

   (iii) Water withdrawal, consumption and discharge in the following format:

   The response to this question has been covered in the Water Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 158

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt Ltd was engaged by the Company to provide an independent assurance for FY 2023-24

2. **Please provide details of total Scope 3 emissions & its intensity, in the following format:**

   The response to this question has been covered in the GHG Management sub-section of the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 150

   Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency?

   Yes, Bureau Veritas India Pvt Ltd. was engaged by the Company to provide an independent assurance for FY 2023-24

3. **With respect to the ecologically sensitive areas reported at Question 10 of Essential Indicators above, provide details of significant direct & indirect impact of the entity on biodiversity in such areas along-with prevention and remediation activities.**

   No operations in ecologically sensitive areas

4. **If the entity has undertaken any specific initiatives or used innovative technology or solutions to improve resource efficiency, or reduce impact due to emissions / effluent discharge / waste generated, please provide details of the same as well as outcome of such initiatives, as per the following format:**

   The response to this question has been covered in the Natural Capital section of the Integrated Annual Report FY 2023-24. Page no. 138 to 177

5. **Does the entity have a business continuity and disaster management plan? Give details in 100 words/ web link.**

   The response to this question has been covered in the Manufactured Capital section of the Integrated Annual Report FY 2023-24. Page no. 77

6. **Disclose any significant adverse impact to the environment, arising from the value chain of the entity. What mitigation or adaptation measures have been taken by the entity in this regard.**

   The response to this question has been covered in the Supplier Assessment Process sub-section of Social and Relationship Capital Section of the Integrated Annual Report FY 2023-24. Page no. 199

Business Responsibility & Sustainability Report

7. **Percentage of value chain partners (by value of business done with such partners) that were assessed for environmental impacts.**

   The response to this question has been covered in the Supplier Assessment Process sub-section of Social and Relationship Capital Section of the Integrated Annual Report FY 2023-24. Page no. 199

PRINCIPLE 7: Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent

Essential Indicators

1. **A. Number of affiliations with trade and industry chambers/ associations.**

   The response to this question has been covered in the Our Key Associations and Memberships section of the Integrated Annual Report FY 2023-24. Page no. 57

   B. List the top 10 trade and industry chambers/ associations (determined based on the total members of such body) the entity is a member of/ affiliated to.

   The response to this question has been covered in the Our Key Associations and Memberships section of the Integrated Annual Report FY 2023-24. Page no. 57

2. **Provide details of corrective action taken or underway on any issues related to anti-competitive conduct by the entity, based on adverse orders from regulatory authorities.**

Name of authority	Brief of the case	Corrective action taken
0	0	0

Leadership Indicators

1. **Details of public policy positions advocated by the entity:**

   The response to this question has been covered in the Public Policy Advocacy sub-section of the Social & Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 206 and 207

PRINCIPLE 8: Businesses should promote inclusive growth and equitable development

Essential Indicators

1. **Details of Social Impact Assessments (SIA) of projects undertaken by the entity based on applicable laws, in the current financial year.**

Name and brief details of project	SIA Notification No.	Date of notification	Whether conducted by independent external agency (Yes / No)	Results communicated in public domain (Yes / No)	Relevant Web link
Nil	Nil	Nil	Nil	Nil	Nil

2. **Provide information on project(s) for which ongoing Rehabilitation and Resettlement (R&R) is being undertaken by your entity, in the following format:**

Sr. No.	Name of Project for which R&R is ongoing	State	District	No. of Project Affected Families (PAFs)	% of PAFs covered by R&R	Amounts paid to PAFs in the FY (In INR)

The response to this question has been covered in the Engaging with Local Communities sub-section of the Social & Relationship Capital of the Integrated Annual Report FY 2023-24. Page no. 184

3. **Describe the mechanisms to receive and redress grievances of the community.**

   The response to this question has been covered in the Community Relations and Grievances sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 182

4. **Percentage of input material (inputs to total inputs by value) sourced from suppliers:**

   The response to this question has been covered in the Responsible Value Chain sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 197

5. **Job creation in smaller towns – Disclose wages paid to persons employed (including employees or workers employed on a permanent or non-permanent / on contract basis) in the following locations, as % of total wage cost:**

   The response to this question has been covered in the Diversity, Equity and Inclusion sub-section of the Human Capital section of the Integrated Annual Report FY 2023-24. Page no. 102

Leadership Indicators

1. **Provide details of actions taken to mitigate any negative social impacts identified in the Social Impact Assessments (Reference: Question 1 of Essential Indicators above):**

Details of negative social impact identified	Corrective action taken
NA	NA

2. **Provide the following information on CSR projects undertaken by your entity in designated aspirational districts as identified by government bodies:**

   The response to this question has been covered in the Engaging with Local Communities sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 181

3. (a) **Do you have a preferential procurement policy where you give preference to purchase from suppliers comprising marginalized /vulnerable groups?**

   No

   (b) **From which marginalized /vulnerable groups do you procure?**

   NA

   (c) **What percentage of total procurement (by value) does it constitute?**

   NA

4. **Details of the benefits derived and shared from the intellectual properties owned or acquired by your entity (in the current financial year), based on traditional knowledge:**

S. No	Intellectual Property based on traditional knowledge	Owned/ Acquired (Yes/No)	Benefit shared (Yes / No)	Basis of calculating benefit share
NA				

5. **Details of corrective actions taken or underway, based on any adverse order in intellectual property related disputes wherein usage of traditional knowledge is involved.**

Name of the authority	Brief of the Case	Corrective action taken
NA		

Business Responsibility & Sustainability Report

6. **Details of beneficiaries of CSR Projects:**

   The response to this question has been covered in the Engaging with Local Communities sub-section of the Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 183

PRINCIPLE 9: Businesses should engage with and provide value to their consumers in a responsible manner

Essential Indicators

1. **Describe the mechanisms in place to receive and respond to consumer complaints and feedback.**

   The response to this question has been covered in the Customer Satisfaction sub-section of Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Pg No. 206

2. **Turnover of products and/ services as a percentage of turnover from all products/service that carry information about:**

	As a percentage to total turnover
Environmental and social parameters relevant to the product	NA
Safe and responsible usage	NA
Recycling and/or safe disposal	NA

3. **Number of consumer complaints in respect of the following:**

   NA

4. **Details of instances of product recalls on account of safety issues:**

	Number	Reasons for recall
Voluntary recalls	NA	NA
Forced recalls	NA	NA

5. **Does the entity have a framework/ policy on cyber security and risks related to data privacy? (Yes/No) If available, provide a web-link of the policy.**

   We have an Information Security Policy Weblink: hindalco.com/upload/pdf/information-security-policy.pdf

6. **Provide details of any corrective actions taken or underway on issues relating to advertising, and delivery of essential services; cyber security and data privacy of customers; re-occurrence of instances of product recalls; penalty / action taken by regulatory authorities on safety of products / services:** Nil

7. **Provide the following information relating to data breaches:** Nil

   a. **Number of instances of data breaches**

   b. **Percentage of data breaches involving personally identifiable information of customers**

   c. **Impact, if any, of the data breaches**

Leadership Indicators

1. **Channels / platforms where information on products and services of the entity can be accessed (provide web link, if available).**

   https://www.hindalco.com/

2. **Steps taken to inform and educate consumers about safe and responsible usage of products and/or services.**

   NA

3. **Mechanisms in place to inform consumers of any risk of disruption/discontinuation of essential services.**

   NA

4. **Does the entity display product information on the product over and above what is mandated as per local laws? (Yes/No/Not Applicable) If yes, provide details in brief. Did your entity carry out any survey with regard to consumer satisfaction relating to the major products / services of the entity, significant locations of operation of the entity or the entity as a whole? (Yes/No)**

   The response to this question has been covered in the Customer Centricity sub-section of Social and Relationship Capital section of the Integrated Annual Report FY 2023-24. Page no. 205 and 206

Corporate Governance Report

Content of the Corporate Governance Report including General Shareholder Information

A About our Governance Philosophy
B Board of Directors and Management
C Committees of the Board
D Disclosures
E Executive & Non-Executive Remuneration
F Framework & Polices
G General Shareholder Information

ABOUT OUR GOVERNANCE PHILOSOPHY

The evolution of governance framework worldwide underscores its critical role in enhancing market confidence and has resulted in transcendental rise from mere compliance to ethical business practices. In India, governance standards have witnessed significant transformation, driven by regulatory and legal reforms in conjunction with a heightened focus on ethical business practices. In an increasingly interconnected global economy, robust corporate governance practices not only ensure transparency and accountability but also cultivates trust among stakeholders.

At Hindalco Industries Limited *["your Company" or "Company" or "we" or "Hindalco"]*, we recognize that effective governance is not just a regulatory requirement but a strategic imperative that drives our business forward. By embedding governance excellence into our corporate DNA, we strengthen our resilience to economic fluctuations, mitigate risks, and enhance our reputation. Hindalco, the metal flagship Company of the Aditya Birla Group, being one of the global governance leaders is guided by our Group's purpose of Trusteeship in tandem with the benchmark laid by Organisation for Economic Co-operation and Development *["OECD"]* Principles as enshrined below.

" At the core, good governance is about ensuring fair outcomes. The prerequisite to achieving fair outcome in the eyes of all stakeholders, is to first build trust. Trust is the foundation of Corporate Governance."

~ Kumar Mangalam Birla
Chairman Aditya Birla Group

These principles:

a. help your Company facilitate access to finance thereby promoting investment, innovation, and productivity growth, and foster economic dynamism broadly;

b. provide a framework to protect investors by promoting the transparency and accountability of board members and executives to Shareholders, eventually building trust in markets for your Company

c. support the sustainability and resilience of your Company which, in turn, contributes to the broader economy.

Ensuring the basis for an effective corporate governance framework

Disclosure and Transparency

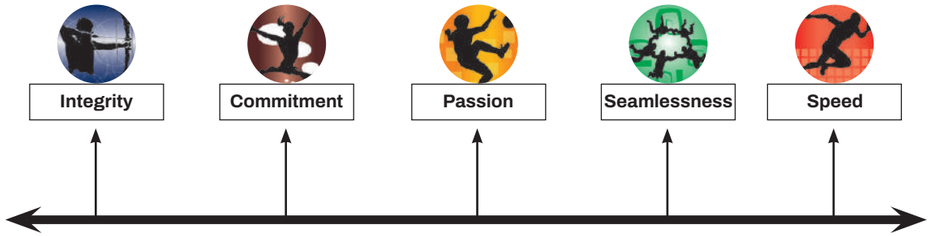
Institutional investors, stock markets, and other intermediaries

The rights and equitable treatment of Shareholders and key ownership functions

The responsibilities of the Board of Directors

Sustainability and Resilience

As part of the Aditya Birla Group, Hindalco takes pride in its association with founders who established the foundations of good governance and sustainable business practices, integrating these principles into our operations from the outset. Our commitment is further reinforced by the Aditya Birla Group's five core values, which guide us in pursuing our purpose and achieving excellence in corporate governance.



Aditya Birla Group's values

Your Company has integrated digital technologies to improve the oversight and execution of governance requirements, emphasizing the need for managing the associated risks effectively.

Given the expanded scope of diverse entities involved in corporate governance within the market and their interdependence, Hindalco aims to uphold rigorous standards of integrity and governance across these entities.

Your Company is committed to timely and adequate disclosure of all significant developments and forward-looking material information that may impact stakeholders' evaluations and decisions, while upholding the highest standards of transparency. Our rigorous disclosure framework not only strengthens market oversight but also enables shareholders to make well-informed decisions and shapes corporate conduct to safeguard investor interests.

As we navigate a dynamic global landscape, characterized by rapid technological advancements and evolving regulatory landscapes, Hindalco remains steadfast in its commitment to fostering a culture of integrity, accountability, and sustainable growth.

BOARD OF DIRECTORS *["BOARD"]* AND MANAGEMENT

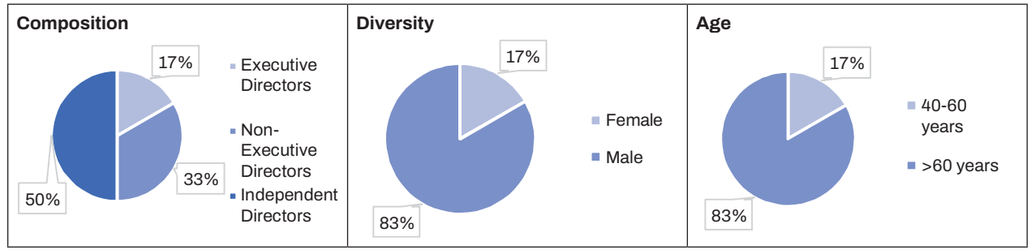
Hindalco is a professionally managed Company functioning under the overall guidance and prudence of its Board of Directors *["Board"]*. The Board is endowed with the responsibility for setting the strategy, managing, handling, directing and enabling the long-term success of the entire business. The Board ensures that your company operates as a well-oiled machine in a sustainable fashion and continues to be a trail blazer among its peers. The Chairman heads the Board and is accountable for its overall efficiency. He ensures the Board of Directors receives accurate, timely and clear information by overseeing the preparation of meeting materials in consultation with the Managing Director, Chief Financial Officer and the Company Secretary. This fosters effective participation and informed decision making from all Directors *[Executive and Independent]*,and promotes a culture of transparency and debate. The Independent Directors offer constructive feedback, strategic direction, expert advice and hold management responsible.

THE BOARD REPERTOIRE

A diverse Board with differences in experience, thought, perspective, skill-sets, gender and expertise ensure constructive deliberations and effective decision-making at the Board. The Company's Board comprises an optimum mix of Executive and Non-Executive Directors, in line with the applicable provisions of the Companies Act, 2013 *["Act"]* and the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 *["SEBI Listing Regulations"]*. All the Directors on the Board are persons of eminence and bring a wide range of expertise, knowledge, and experience to the Board, thereby ensuring the best interest of the stakeholders and the Company.

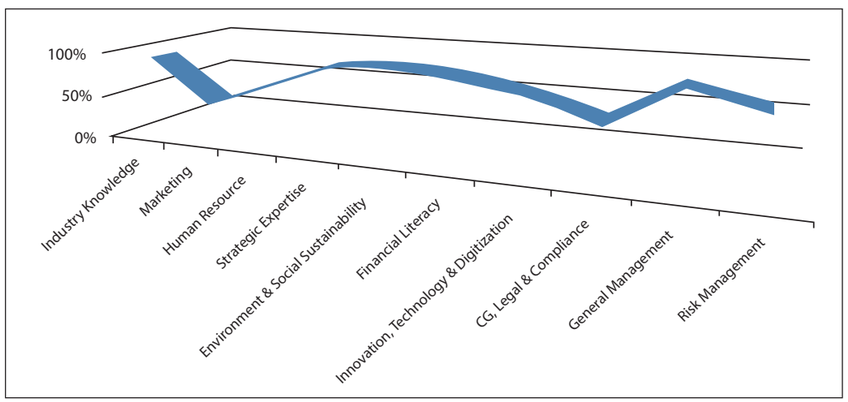
As on the date of this Report, the Board comprises of 12 *[twelve]* Members, 6 *[six]* of which are Non-Executive Independent Directors, 4 *[four]* are Non-Executive Directors and 2 *[two]* Executive Directors.

Corporate Governance Report



The Board of Directors possesses advanced skills and expertise derived from the Global Industry Classification Standard [GICS®]. This knowledge equips them with a comprehensive understanding of standardized industry classifications, enhancing their ability to analyse and compare the company's performance against global benchmarks. Their proficiency enables them to align financial reporting and strategic planning with industry standards, facilitating more effective communication with investors and stakeholders. By leveraging GICS insights, the Board makes informed decisions, identifies market opportunities and navigates industry trends with precision. This alignment with a globally recognized standard not only bolsters the Company's market credibility but also strengthens its strategic positioning in the global marketplace.

Board Repertoire			
	General Management		Human Resource
	Risk Management		Environmental & Social Sustainability
	Marketing		Strategic Expertise
	Corporate Governance [CG], Legal & Compliance		Financial Literacy
	Innovation, Technology & Digitization		Industry Knowledge [Metals and Mining]



All the Directors on the Board are persons of eminence and bring a wide range of expertise, knowledge, and experience to the Board, thereby ensuring the best of interest of the stakeholders and the Company.

A. Non-Executive and Non-Independent

		Mr. Kumar Mangalam Birla	Mrs. Rajashree Birla	Mr. Askaran Agarwala
		[Profile: Link]	[Profile: Link]	[Profile: Link]
Age *[in years]*		57	78	90
Date of Appointment		16th November, 1992	15th March, 1996	11th September, 1998
Current Term		Liable to retire by rotation	Liable to retire by rotation	Liable to retire by rotation and does not seek reappointment
Tenure *[in years]*		31	28	25
Average Tenure *[in years]*		28		
Shareholding		9,01,635	6,12,470	81,948
Skill set				
Inter-se Relationship		Yes *[Son of Mrs. Rajashree Birla]*	Yes *[Mother of Mr. K M Birla]*	No
Confirmations		There is no pecuniary or business relationship between the Non-Executive Directors and the Company, except for the sitting fees, commission payable and reimbursement *[if any]*, to the Non-Executive Directors, in accordance with the applicable laws and approval of the Shareholders of the Company.		
Committee positions as	Chairperson	-	CSR	RM&ESG
	Member	NRC	-	CSR and SRC
Remuneration				
Sitting Fees *[₹ in lakhs]*		1.90	3.20	3.60
Commission *[₹ in lakhs]*		-	294.00	54.00
Performance Evaluation		Yes. Reviewed annually by: • The Independent Directors at their separate meeting; • The Nomination & Remuneration Committee and • The Board.		

Corporate Governance Report

A. Non-Executive and Non-Independent

Positions in other Companies				
Directorship	Listed	Non-Executive Director: 1. Aditya Birla Capital Limited 2. Aditya Birla Fashion and Retail Limited 3. Century Textiles and Industries Limited 4. Grasim Industries Limited 5. UltraTech Cement Limited 6. Vodafone Idea Limited	Non-Executive Director: 1. Century Enka Limited 2. Century Textiles and Industries Limited 3. Grasim Industries Limited 4. Pilani Investment and Industries Corporation Limited 5. UltraTech Cement Limited	Nil
	Public *[Number]*	7	5	2
Committee(s) *[Number]*[2] as	Chairperson	Nil		
	Member	Nil		

1. *In accordance with Section 165 of the Act, the maximum number of public companies in which a person can be appointed as a director shall not exceed ten. Further, SEBI Listing Regulation [Regulation 17A] as applicable to listed companies, mandates that a person shall not serve as an independent director in more than seven listed entities and if the director is a whole time director in any listed entity, then he/she can't serve as an independent director in more than three listed entities.*
2. *In terms of the Regulation 26(1)(b) of the SEBI Listing Regulations, Committee positions include Audit Committee and Stakeholders' Relationship Committee in public Companies excluding Private Limited Companies / Foreign Companies / High value debt listed entities/ Section 8 Companies in Audit Committee & Stakeholders Relationship Committee of other public limited Companies [including deemed public].*

B. Executive

Director		Mr. Satish Pai	Mr. Praveen Kumar Maheshwari
		 [Profile: Link]	 *[Profile: Link]*
Age *[in years]*		62	63
Date of Appointment		13th August, 2013	28th May, 2016
Term ending date		31st December, 2027	31st March, 2025
Tenure *[in years]*		10	8
Average Tenure *[in years]*		9	
Shareholding		8,57,676	59,557
Committee positions as	Chairperson	Nil	Nil
	Member	RM&ESG, CSR and SRC	RM&ESG
Sitting Fees		-	-

B. Executive

Remuneration *[₹ in lakhs]*		3,169.19			836.61		
ESOPs	FY24	Options	Granted	11,53,847	Options	Granted	57,693
			Exercised	5,62,499		Exercised	59,557
		RSUs/ PSUs	Granted	1,61,638	RSUs/ PSUs	Granted	8,082
			Exercised	3,83,405		Exercised	-
	FY23	Options	Granted	11,71,875	Options	Granted	70,755
			Exercised	-		Exercised	-
		RSUs	Granted	1,66,063	RSUs	Granted	10,000
			Exercised	3,11,203		Exercised	-
Skill Set							
Performance evaluation		Yes. Reviewed annually by: • The Independent Directors at their separate meeting, • The Nomination & Remuneration Committee and • The Board.					
Positions in other Companies							
Directorship	Listed	-			-		
	Public *[Number]*	-			1		
Committee positions as *[Number]*	As Chairperson	-			-		
	As Member	-			-		

C. Independent

Director	Mr. Kailash Nath Bhandari	Mr. Yazdi Dandiwala	Ms. Alka Bharucha
	 [Profile: Link]	 *[Profile: Link]*	 *[Profile: Link]*
Age *[in years]*	82	73	67
Date of Appointment	14th August, 2014	14th August, 2015	11th July, 2018
Term ending date	29th August, 2024	13th August, 2025	10th July, 2028
Tenure *[in years]*	9	8	5
Average Tenure of Independent Directors *[in years]*	6		
Shareholding	5,071	267	-

Corporate Governance Report

C. Independent				
Confirmations		1. There is no pecuniary or business relationship between the Non-Executive Directors and the Company, except for the sitting fees, commission payable and reimbursement *[if any]* to the Non-Executive Directors, in accordance with the applicable laws and approval of the shareholders of the Company; 2. Meet the criteria of independence as mentioned under Section 149(6) of the Act and Regulation 16 of the SEBI Listing Regulations; 3. Registered themselves with the Independent Director's Database maintained by the Indian Institute of Corporate Affairs and 4. Have confirmed under Regulation 25(8) of the SEBI Listing Regulations that they are not aware of any circumstance or situation, which exists or may be reasonably anticipated, that could impair or impact their ability to discharge their duties with an objective of independent judgement and without any external influence.		
Committee positions as	Chairperson	AC, NRC and SRC	-	-
	Member	RM&ESG	AC, NRC and CSR	-
Commission *[₹ in lakhs]*		54.00	54.00	36.00
Sitting Fees *[₹ in lakhs]*		6.55	5.30	3.00
Skill Set				
Performance Evaluation		Yes. Reviewed annually by: • The Independent Directors at their separate meeting, • The Nomination & Remuneration Committee and • The Board.		
Positions in other Companies				
Directorship	Listed	Independent Director: 1. Shrishti Infrastructure Development Corporation Limited 2. Venus Pipes & Tubes Limited	Independent Director: 1. Century Textiles and Industries Limited 2. Grasim Industries Limited 3. Pilani Investment and Industries Corporation Limited 4. Rashi Peripherals Limited	Independent Director: 1. Aditya Birla Sun Life AMC Limited 2. Honda India Power Products Limited 3. ITC Limited 4. Orient Electric Limited 5. UltraTech Cement Limited
	Public *[Number]*	7	5	8
Committee(s) *[Number]*[1] as	As Chairperson	2	1	4
	Member	6	6	7

C. Independent
1. *Independent Directors are Non-Executive Directors as defined under Regulation 16(1)(b) of the SEBI Listing Regulations and Section 149(6) of the Act.* 2. *In accordance with Section 165 of the Act, the maximum number of public companies in which a person can be appointed as a director shall not exceed ten. Further, SEBI Listing Regulations [Regulation 17A] as applicable to listed companies, mandates that a person shall not serve as an independent director in more than seven listed entities and if the director is a whole time director in any listed entity, then he/she can't serve as an independent director in more than three listed entities.* 3. *In terms of the Regulation 26(1)(b) of the SEBI Listing Regulations, Committee positions include Audit Committee and Stakeholders' Relationship Committee in public companies excluding Private Limited Companies / Foreign Companies / High value debt listed entities/ Section 8 Companies. in Audit Committee and Stakeholders Relationship Committee of other public limited Companies [including deemed public].* 4. *Mr. Anant Maheshwari [DIN: 02963839] has resigned as an Independent Director w.e.f. 18th October 2023, during the year under review and his tenure, he was paid remuneration of ₹1.50 Lakhs as Sitting Fees & Commission of ₹18 Lakhs.*

C. Independent		
Director	**Dr. Vikas Balia** *[Profile: Link]*	**Mr. Sudhir Mital** *[Profile: Link]*
Age *[in years]*	48	70
Date of Appointment	19th July, 2019	11th November, 2019
Term ending date	18th July, 2029	10th November, 2024
Tenure *[in years]*	4	4
Average Tenure *[in years]*	6	
Shareholding	325	Nil
Confirmations	1. There is no pecuniary or business relationship between the Non-Executive Directors and the Company, except for the sitting fees, commission payable and reimbursement *[if any]* to the Non-Executive Directors, in accordance with the applicable laws and approval of the shareholders of the Company; 2. Meet the criteria of independence as mentioned under Section 149(6) of the Act and Regulation 16 of the SEBI Listing Regulations; 3. Registered themselves with the Independent Director's Database maintained by the Indian Institute of Corporate Affairs and 4. Have confirmed under Regulation 25(8) of the SEBI Listing Regulations that they are not aware of any circumstance or situation, which exists or may be reasonably anticipated, that could impair or impact their ability to discharge their duties with an objective of independent judgement and without any external influence.	

Corporate Governance Report

C. Independent			
Committee positions as	Chairperson	Nil	Nil
	Member	AC and RM & ESG	SRC and CSR
Commission *[₹ in lakhs]*		54	36
Sitting Fees *[₹ in lakhs]*		4.75	3
Skill Set			
Performance evaluation		Yes. Reviewed annually by: • The Independent Directors at their separate meeting, • The Nomination & Remuneration Committee and • The Board.	
Positions in other Companies			
Directorship	Listed	Independent Director: 1. Ideaforge Technology Limited	Independent Director: 1. Jaiprakash Power Ventures Limited
	Public *[Number]*	2	2
Committee positions as *[Number]*	As Chairperson	1	Nil
	As Member	2	Nil

1. *Independent Directors are Non-Executive Directors as defined under Regulation 16(1)(b) of the SEBI Listing Regulations and Section 149(6) of the Act.*
2. *In accordance with Section 165 of the Act, the maximum number of public companies in which a person can be appointed as a director shall not exceed ten. Further, SEBI Listing Regulations [Regulation 17A] as applicable to listed companies, mandates that a person shall not serve as an independent director in more than seven listed entities and if the director is a whole time director in any listed entity, then he/she can't serve as an independent director in more than three listed entities.*
3. *In terms of the Regulation 26(1)(b) of the SEBI Listing Regulations, Committee positions include Audit Committee and Stakeholders' Relationship Committee in public companies excluding Private Limited Companies / Foreign Companies / High value debt listed entities/ Section 8 Companies. in Audit Committee and Stakeholders Relationship Committee of other public limited Companies [including deemed public].*

Appointment at the Board post 31st March, 2024:

		Independent	Non-Executive and Non-Independent
Director		**Mr. Arun Adhikari** *[Profile: Link]*	**Mr. Sushil Agarwal** *[Profile: Link]*
Age *[in years]*		70	61
Date of Appointment		1st May, 2024	1st May, 2024
Term ending date		30th April, 2029	Liable to retire by rotation
Shareholding		-	3,321
Inter-se Relationship		NA	No
Confirmations		1. There is no pecuniary or business relationship between the Non-Executive Directors and the Company, except for the sitting fees, commission payable and reimbursement *[if any]* to the Non-Executive Directors, in accordance with the applicable laws and approval of the shareholders of the Company; 2. Meet the criteria of independence as mentioned under Section 149(6) of the Act and Regulation 16 of the SEBI Listing Regulations; 3. Registered himself with the Independent Director's Database maintained by the Indian Institute of Corporate Affairs and 4. Have confirmed under Regulation 25(8) of the SEBI Listing Regulations that they are not aware of any circumstance or situation, which exists or may be reasonably anticipated, that could impair or impact their ability to discharge their duties with an objective of independent judgement and without any external influence.	There is no pecuniary or business relationship between the Non-Executive Directors and the Company, except for the sitting fees, commission payable and reimbursement *[if any]*, to the Non-Executive Directors, in accordance with the applicable laws and approval of the Shareholders of the Company.
Committee positions as	Chairperson	Nil	Nil
	Member	AC, NRC and RM&ESG	AC, SRC and RM&ESG

Corporate Governance Report

		Independent	Non-Executive and Non-Independent
Skill Set			
Positions in other Companies			
Directorship	Listed	Independent Director: 1. Aditya Birla Fashion and Retail Limited; 2. Aditya Birla Capital Limited; 3. UltraTech Cement Limited; 4. Vodafone Idea Limited; 5. Voltas Limited	Non-Executive Director: 1. Aditya Birla Capital Limited; 2. Grasim Industries Limited; 3. Vodafone Idea Limited
	Public *[Number]*	1	3
Committee positions as *[Number]*[2]	Chairperson	-	-
	Member	5	6
1. *Independent Directors are Non-executive Directors as defined under Regulation 16(1)(b) of the Listing Regulations and Section 149(6) of the Act.*			-

2. *In accordance with Section 165 of the Act, the maximum number of public companies in which a person can be appointed as a director shall not exceed ten. Further, SEBI Listing Regulations [Regulation 17A] as applicable to listed companies, mandates that a person shall not serve as an independent director in more than seven listed entities and if the director is a whole time director in any listed entity, then he/she can't serve as an independent director in more than three listed entities.*
3. *In terms of the Regulation 26(1)(b) of the SEBI Listing Regulations, Committee positions include Audit Committee and Stakeholders' Relationship Committee in public companies excluding Private Limited Companies / Foreign Companies / High value debt listed entities/ Section 8 Companies. in Audit Committee and Stakeholders Relationship Committee of other public limited Companies [including deemed public].*

Key Board Qualifications, Expertise and Attributes: The Board of Directors are collectively responsible for selection of a member on the Board. The Nomination & Remuneration Committee of the Company follows a defined criteria for identifying, screening, recruiting and recommending candidates for election as a Director on the Board.

The criteria for nominating/inducting a Director on the Board of the Company includes:

- Composition requirement of law
- Diversity
- Balance of skills and relevant experience
- Expertise in specific business area
- No conflict of interest
- Availability of time

Board Induction, Training and Familiarisation: Your Company implements a structured and thorough orientation program for newly appointed Directors, customized to meet their specific requirements. This program aims to familiarize them with the Company's vision, mission, values, operations, challenges, structure, and risks. Additionally, as part of our continuous familiarization process, Directors receive regular updates on significant regulatory and industry developments through a formal reporting mechanism.

In terms of the provisions of Regulation 25 of the SEBI Listing Regulations, your Company has framed a Familiarisation Programme for Independent Directors of the Company, structured into two parts i.e. 'Induction' and 'Ongoing interaction'. This Programme aims to provide insights into the business of the Company, to enable the Independent Directors to understand their roles, rights, responsibilities in the Company, nature of the industry in which the Company operates, its business in depth and contribute significantly to the Company.

By way of an induction to the Company, presentations are also made to the newly appointed Non-Executive Director *[including Independent Directors]* on relevant information such as overview of the Company's business, offerings, market and business environment, growth and performance, organisational set up of the Company, governance and internal control processes.

Further, on an ongoing basis as a part of the agenda of meetings of the Board / Committee(s), presentations are regularly made to the Independent Directors on various matters *inter alia* covering the Company's businesses and operations, strategy, risk management framework, industry and regulatory updates and other relevant matters. These presentations enable one-on-one interaction between the Independent Directors and the Senior Management of the Company/ statutory auditor/ internal auditor of the Company.

The details of the 'Familiarisation Programmes for Independent Directors' are also available on the website of the Company at www.hindalco.com.

Board Procedures: The Board, Committees of Board and Independent Directors' meetings are pre-scheduled, and an annual calendar of these meetings is circulated to the Directors and Committee Members at the beginning of the financial year, to facilitate better planning basis the convenience of Board Members to foster effective participation at the meetings. The interval between any two Board Meetings was well within the maximum allowed gap of 120 *[one hundred and twenty]* days under the provisions of the Act and the SEBI Listing Regulations.

In case of special and urgent business matters, approval of the Board / Committees is taken by passing a resolution by circulation, as permitted by law, which is noted in the next Board / Committee meeting. For matters not permitted to be passed by circular resolution, a meeting is convened at shorter notice as per the applicable provisions.

In order to facilitate effective discussions at the meetings of the Board, the agenda is designed to help the Board Members discern between matters of noting and critical matters for approval. The same is circulated to the Board of Directors within the timelines prescribed under the Act, SEBI Listing Regulations, Secretarial Standard on Meetings of the Board of Directors *["SS-1"]* and other applicable provisions.

Clarifications / queries, if any, on the items which are to be taken on record by the Board are sought in advance and resolved before the meeting, to ensure focused and effective discussions at the meetings.

The discussions consist of review of the performance of the business *vis-à-vis* the Company's Plan for the financial year and overall strategy, review of financial results, review of subsidiary's performance, review of compliance reports, fund position and investments status, industrial relations, environmental consents, etc.

The Board also deliberates on:

- its succession planning, its Committees and Senior Management Personnel;
- strategic planning, governance & regulatory matters;
- financial position;
- declaration & recommendation of dividend;
- progress on ESG commitments of the Company and
- such other matters as required under the Act, the SEBI Listing Regulations and other applicable laws.

Corporate Governance Report

Gamut of discussion of the Board

Financial Results *[Quarterly & Annually]*	Capex Planning	Sustainability	De-carbonization	Strategy
Fatality report, if any	Production Trend	Digitization & AI	Subsidiary Performance	

During the year under review, 6 *["six"]* meetings of the Board were held. The requisite quorum was present, for all such meetings. The Board Members were present either in person or through video conference.

Attendance of each director at the meeting of the board and at the last AGM

Director	Board Attendance[1]								Annual General Meeting on 22nd August, 2023
	No. of Board Meetings								
	1	2	3	4	5	6	Attendance	%	
	24th May, 2023	12th July, 2023	8th August, 2023	10th November, 2023	23rd January, 2024	13th February, 2024			
Mr. Kumar Mangalam Birla	●	○	●	●	○	○	3 out of 6	50	●
Mrs. Rajashree Birla	●	●	●	●	●	●	6 out of 6	100	○
Ms. Alka Bharucha	●	●	●	●	●	●	6 out of 6	100	●
Mr. Anant Maheshwari[2]	●	●	●	-	-	-	3 out of 3	100	○
Mr. Askaran Agarwala	○	○	●	●	●	●	4 out of 6	67	●
Mr. Kailash Nath Bhandari	●	●	●	●	●	●	6 out of 6	100	●
Mr. Praveen Kumar Maheshwari	●	●	●	●	●	●	6 out of 6	100	●
Mr. Satish Pai	●	●	●	●	●	●	6 out of 6	100	●
Mr. Sudhir Mital	●	●	●	●	●	●	6 out of 6	100	●
Dr. Vikas Balia	●	●	●	●	●	●	6 out of 6	100	●
Mr. Yazdi Dandiwala	●	●	●	●	●	●	6 out of 6	100	●

● - Present ○ - Leave of Absence due to pre-occupation

1. *Pursuant to Section 167 of the Act, a director shall incur disqualification if he/she does not meet the minimum attendance criteria and absents himself/herself from all the meetings of the Board of Directors held during a period of twelve months with or without seeking leave of absence of the Board. All Directors of the Company have duly met the attendance criteria during FY 2024.*
2. *Ceased to be an Independent Director w.e.f. 18th October, 2023*

The details of Directors seeking appointment / reappointment, forms part of the Notice of the 65th AGM of the Company.

Independent Directors: As trustees for Shareholders, Independent Directors are essential in upholding corporate governance standards and ensuring fair decision-making. Their diverse expertise allows them to provide independent judgment on strategy, risk management, controls, and business performance. By bringing unbiased perspectives, they play a key role in maintaining robust governance and ethical standards within your Company.

All Independent Directors on the Board are Non-Executive Directors as defined under Regulation 16 of the SEBI Listing Regulations. Independent Directors can hold office for up to two terms of five years each. As regards the appointment and tenure of the Independent Directors, the Company has complied with the provisions of the Act and the SEBI Listing Regulations.

The Independent Directors on the Board of your Company are experienced, competent and highly respected individuals in their respective fields, their collective wisdom and prudence brings an ideal mixture of expertise, professionalism, knowledge and experience to the table.

The Company has received declarations from the Independent Directors that they meet the criteria of Independence stipulated under Section 149 of the Act read with Rule 5 of the Companies (Appointment and Qualifications of Directors) Rules, 2014 and applicable provisions of the SEBI Listing Regulations.

The Independent Directors have also confirmed that they have registered themselves with the Independent Director's Database maintained by the Indian Institute of Corporate Affairs.

The Independent Directors under Regulation 25(8) of the SEBI Listing Regulations have confirmed that they are not aware of any circumstance or situation, which exists or may be reasonably anticipated, that could impair or impact their ability to discharge their duties with an objective independent judgement and without any external influence.

Based on the declarations received from the Independent Directors, supported by a Certificate from Company Secretary in practice, the Board has confirmed the veracity of such disclosures and confirmed that the Independent Directors fulfil the conditions of independence specified in the Act and the SEBI Listing Regulations and are independent of the management of the Company.

During the year under review, Mr. Anant Maheshwari resigned w.e.f. 18th October, 2023, citing personal reasons along with confirmation that there were no other material reasons other than those provided in his correspondence. All the required disclosures as per the SEBI Listing Regulations and the Act were duly given by the Company in its Intimation to the exchanges dated 19th October, 2023.

During the financial year 2023-24, the Independent Directors met once without the presence of other Directors or management representatives.

At such meeting, the Independent Directors, *inter alia*, discussed and reviewed the performance of Non-Independent Directors, the Board as a whole, Chairman of the Company and assessed the quality, quantity and timeliness of flow of information between the Company's management and the Board that is necessary for the Board to perform its duties effectively and reasonably, succession planning of the Board of Directors and Senior Management.

Corporate Governance Report

The details of the meetings held during the financial year 2023-24 and meetings attended by the Independent Directors of the Company, is detailed below:

Name of the Independent Director	Meeting Date	
	11th May, 2023	% of attendance
Ms. Alka Bharucha	✓	100
Mr. Anant Maheshwari*	✓	100
Mr. Kailash Nath Bhandari	✓	100
Mr. Sudhir Mital	✓	100
Dr. Vikas Balia	✓	100
Mr. Yazdi Dandiwala	✓	100

✓ - Present

**Ceased to be an Independent Director w.e.f. 18th October, 2023.*

Performance Evaluation Criteria for Board and Independent Directors:

The inception of Board's evaluation process was approved by the Board in year 2014. Basis the framework the results of the evaluation was placed before the NRC and Board. The evaluation framework has been overhauled in February 2024, with the inclusion of a detailed assessment that indicates a proactive approach to adapting governance practices to cater to the need of the hour. Below is a highlight of structured overview of the changes and their implications:

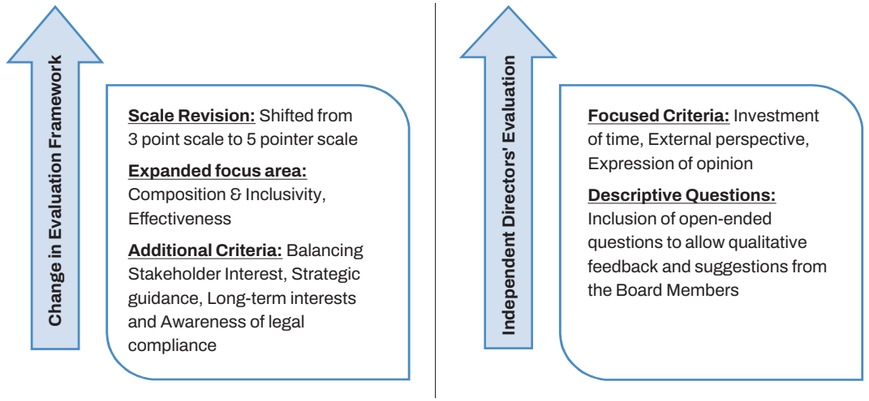
Changes in Board Evaluation Process:

1. **Scale Revision:** The evaluation scale has evolved from a 3-point scale *[Completely Agree, Somewhat Agree, Disagree]* to a more nuanced 5-point scale *[Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree]*. This change allows for finer distinctions in feedback, providing clearer insights into the Board's performance.

2. **Expanded Focus Areas:** The evaluation now encompasses broader responsibilities:
   - **Board Composition and Inclusivity:** Ensuring diverse perspectives and skills.
   - **Effectiveness:** How well the Board functions as a strategic entity.

3. **Additional Evaluation Criteria:**
   - **Balancing Stakeholder Interests:** Reflects a more stakeholder-centric approach.
   - **Strategic Guidance:** Assessing the Board's role in setting and achieving strategic goals.
   - **Safeguarding Long-term Interests:** Emphasizes sustainability and ethical considerations.
   - **Awareness of Legal Compliance:** Ensuring adherence to relevant laws and regulations.

Performance Evaluation Criteria for Independent Directors:



Independent Directors' Performance Evaluation:

1. **Focused Criteria**:
   - **Investment of Time**: Understanding the company's unique needs through dedicated effort.
   - **External Perspective**: Bringing external insights to board discussions.
   - **Expression of Opinion**: Active participation and contribution in board deliberations.

2. **Descriptive Questions**: Inclusion of open-ended questions allows for qualitative feedback and suggestions from Board members. This promotes continuous improvement in governance practices.

Implementation of Recommendations:

1. **Feedback**: Recommendations from the Board Members are discussed with the Independent Directors at their separate meeting and subsequently with the NRC and the Board, wherein the evaluation and suggestions are considered.
2. **Actionable Steps**: The company has taken steps to implement suggestions, demonstrating a commitment to evolving and strengthening governance process.

Flow of Information to the Board: The Board has unrestricted access to all Company-related information including to Members of the management. The Company Secretary ensures that the Board and the Committees of the Board are provided with the relevant information, details and documents required for decision-making.

The Chairman of the Board and the Company Secretary drafts the agenda for every meeting in consultation with the Chief Financial Officer and Whole-time Director, Managing Director. Regular inputs and feedback from Directors / Members of Board Committees are sought and considered while preparing the agenda and related documents for the Board and its Committee meetings.

While preparing the agenda, explanatory notes and minutes of the meetings, adherence to the Act and the Rules made thereunder, the SEBI Listing Regulations, SS-1, and other applicable laws are ensured.

With a view to ensure high standards of confidentiality of the agenda / other Board papers and to leverage technology thereby eliminating paper consumption *[in line with your Company's sustainability initiative]*, the Company circulates the agenda and explanatory notes to the Directors / Committee Members, through a web-based application which can be securely accessed by the Directors / Committee Members through the iPads provided by the Company. This application meets high standards of security that are required for the storage and transmission of documents for Board / Committee meetings.

Corporate Governance Report

All material information is circulated to the Directors before the meeting, including minimum information required to be made available to the Board as prescribed under Part A of Schedule II of the SEBI Listing Regulations. With the unanimous consent of the Board, all information which is in the nature of Unpublished Price Sensitive Information *["UPSI"]*, is circulated to the Board and its Committees in advance and / or at a shorter notice 24 hours before the commencement of the meeting. The management makes concerted efforts to continuously upgrade the information available to the Board for decision making and the Board Members are updated on all key developments relating to the Company.

The Company Secretary attends all the meetings of the Board and its Committees and is, *inter alia*, responsible for minuting of such meetings.

The Managing Director, Chief Financial Officer, Senior Management Personnel of the Company and Senior Executives of the Aditya Birla Group are also invited to the Board / Committee meetings with permission of the Chairman basis the agenda relevant to such invitee(s). This provides an opportunity to both members of management and Board of Directrors to interact with each other.

The draft minutes of the meetings of the Board and its Committees are sent to the Members for their comments in accordance with the Secretarial Standards-1 as issued by the Institute of Company Secretaries of India *["SS – 1"]*.

The Company adheres to the provisions of the Act and the Rules made thereunder, Secretarial Standards and the SEBI Listing Regulations with respect to convening and holding the meetings of the Board, its Committees and the General Meetings of the Shareholders' of the Company.

Post-Meeting Follow-up Mechanism: The governance processes in the Company include an effective post-meeting follow-up, review and reporting process for action taken report/pending for discussions of the Board and its Committees in the subsequent meetings. Feedback for flow of information necessary for Board Meetings is sought from Independent Directors at their separate meeting and endeavours are undertaken to improvise basis such comments received.

Succession Planning: The Company believes that succession planning is imperative for a Company's continuity and sustainability.

The Company ensures a balanced mix of skills and experience on the Board and within the organization, blending fresh perspectives with established expertise for continuity. NRC is instrumental in identifying successors for Board Members and collaborates with the Managing Director on succession planning for Key Managerial Personnel and Senior Management Personnel. Employing an equitable selection process, the NRC aligns succession plans with the Company's strategic and long-term goals.

Loans and Advances: No loans/advances in the nature of debt or otherwise was given to firms / Companies in which Directors of the Company are interested.

Directors and Officers Insurance: In line with the requirements of Regulation 25(10) of the SEBI Listing Regulations, the Company has in place a Directors and Officers Liability Insurance policy.

Any person who becomes a Director or an Officer, including an employee who is acting in a managerial capacity, shall be covered under Directors' and Officers' Liability Insurance Policy. The Policy shall also cover those who serve as a Director, Officer or equivalent of an outside entity at Company's request. The Company has provided insurance cover in respect of legal action against its Directors under the Directors' and Officers' Liability Insurance.

MANAGEMENT

Senior Management: The particulars of Senior Management as per Regulation 16(1)(d) of the SEBI Listing Regulations including the changes during the year under review are as follows:

Name	Designation
Mr. Anil Mathew	Head - Policy Advocacy & Chief Risk Officer
Mr. Aniruddha Kulkarni	Chief Strategy Officer
Mr. Arun Kumar B	Head - Aluminium Downstream Strategic Projects
Mr. Chandan Agrawal	CEO - Eternia Business
Ms. Geetika Anand	Company Secretary & Compliance Officer
Mr. Kailash Pandey	Head - Mining Head
Ms. Kopal Agrawal	Chief Procurement Officer
Mr. Mazharullah Beig	Unit Head - Utkal Alumina & Head – Aditya Alumina Refinery Project
Mr. Nagesh Narisetty	Head- Renukoot Cluster
Mr. Nilesh Koul	CEO - Downstream Aluminium Business
Mr. Praveen Kumar Maheshwari	Chief Financial Officer
Mr. Rohit Pathak	CEO - Copper Business
Mr. S Kanakanand	Head - Manufacturing Centre of Excellence
Mr. Samik Basu	Chief Human Resource Officer
Mr. Saurabh Khedekar	CEO - Chemicals Business
Mr. Sukanta Das	Chief Logistics Officer
Mr. V R Shankar	Chief Legal Officer
	Changes during FY 2023-24
Senior Management Personnel	**Effective date**
Superannuation	
Mr. Rajesh Kumar Gupta	31st January, 2024

Corporate Governance Report

COMMITTEES OF THE BOARD

The Board has constituted various Committees with specific terms of reference in line with the provisions of the SEBI Listing Regulations and the Act. The Board Committees play a vital role in improving the Board effectiveness in the areas where more focus and extensive discussions are required.

The Committees of the Board operate under the direct supervision of the Board. Generally, the committee meetings are held prior to the board meeting and the Chairperson of the respective committee reports to the Board about the deliberations and decisions taken by the Committees. On certain matters, the Committees seek indulgence of the Board Members and invite them to the Committee meetings.

Audit committee:

Composition of the committee as on 31st March, 2024:

Mr. Kailash Nath Bhandari
Chairman

Mr. Yazdi Dandiwala
Member

Dr. Vikas Balia
Member

3 Members	**7 Meetings**
100% Independent	**95% Attendance**

The Committee fulfils the requirements of:

- Section 149 & 177 of the Companies Act, 2013;
- Regulation 18 of the SEBI Listing Regulations;
- Audit Committee Charter.

Attendance:

Members	Meeting details								
	1	2	3	4	5	6	7	Attendance out of	%
	11th April, 2023	24th May, 2023	12th July, 2023	8th August, 2023	9th October, 2023	10th November, 2023	13th February, 2024		
Mr. Kailash Nath Bhandari	●	●	●	●	●	●	●	7 out of 7	100
Mr. Yazdi Dandiwala	●	●	●	●	○	●	●	6 out of 7	86
Dr. Vikas Balia	●	●	●	●	●	●	●	7 out of 7	100

● - Present ○ - Leave of Absence due to pre-occupation

1. *Mr. Arun Adhikari and Mr. Sushil Agarwal have been appointed as Members w.e.f. 1st May, 2024;*
2. *Representatives of the Statutory Auditors and Internal Auditors are also invited to the Committee meetings for providing such information as may be necessary and*
3. *Company has provided an avenue to the Statutory Auditors to have a separate discussion with the Audit Committee without the presence of executives, prior to declaration of the financial results, whenever requested.*

Gamut of discussions of the Committee

Financial Results *[Quarterly & Annually]*	Monitoring auditors' independence	Evaluation of Internal Financial Control	Significant audit findings	Utilization of funds	Vigil mechanism / Whistle mechanism
Rationale of cost-benefits & impacts of schemes.	Related Party Transactions	Reviewing performance of subsidiary Companies	Fraud risk perspective	Findings on Internal Audit matters	IT initiatives

Terms of Reference of Audit Committee ***["AC"]*****:** The Committee is governed by the terms of reference which are in line with the regulatory requirements mandated by the Act and SEBI Listing Regulations. The detailed terms of reference of the Audit Committee is available on the website of the Company at www.hindalco.com. The Audit Committee ensures that it has reviewed each area under its terms of reference and under applicable legislations by way of good practice.

Related Party Transactions ***["RPTs"]*****:** During the year under review:

- All RPTs entered into by the Company, were approved by the Audit Committee and were in the ordinary course of business and at arm's length basis. The Audit Committee also granted prior omnibus approval for RPTs which would be in the ordinary course of business and on an arm's length basis that are repetitive in nature and also for unforeseen transactions, in line with the Policy on Dealing with and Materiality of Related Party Transactions and the applicable provisions of the Act read with the Rules issued thereunder and the SEBI Listing Regulations *[including any statutory modification(s) and/or re-enactment(s) thereof for the time being in force]*.
- The Audit Committee reviewed on a quarterly basis, the details of RPTs, entered into by the Company pursuant to the omnibus approval granted.
- The Company did not enter into any material RPTs nor did it enter into any significant transaction with its related parties that may have a potential conflict with the interests of the Company.
- The RPTs undertaken by the Company were in compliance with the provisions set out in the Act read with the Rules issued thereunder and relevant provisions of the SEBI Listing Regulations.
- The Policy on Dealing with and Materiality of Related Party Transactions is available on the website of the Company at www.hindalco.com
- Pursuant to Regulation 23(9) of the SEBI Listing Regulations, the Company had filed the half-yearly reports on related party transactions with the stock exchanges on which the equity shares of the Company are listed.

NOMINATION & REMUNERATION COMMITTEE:

Composition of the Committee as on 31st March, 2024:

Mr. Kailash Nath Bhandari
Chairman

Mr. Kumar Mangalam Birla
Member

Mr. Yazdi Dandiwala
Member

3 Members	**3 Meetings**
67% Independent	**89% Attendance**

Corporate Governance Report

The Committee fulfils the requirements of:

- Section 178 of the Companies Act, 2013;
- Regulation 19 of the SEBI Listing Regulations and
- Nomination and Remuneration Committee Charter.

Attendance:

Members	Meeting details				
	1	2	3	Attendance out of	%
	24th May, 2023	8th August, 2023	13th February, 2024		
Mr. Kailash Nath Bhandari	✓	✓	✓	3 out of 3	100
Mr. Kumar Mangalam Birla	✓	✓	✗	2 out of 3	67
Mr. Yazdi Dandiwala	✓	✓	✓	3 out of 3	100

✓ - Present ✗ - Leave of Absence due to pre-occupation

**Mr. Arun Adhikari has been appointed as Member w.e.f. 1st May, 2024.*

Gamut of discussions of the Committee

Overseeing performance evaluation process for the Board of Directors	Recommending remuneration of Executive Directors & Senior Management	Defining criteria for appointment / reappointment of Directors & Senior Management
Approving ESOPs Scheme	Granting and vesting under the ESOPs Scheme	Recommending commission payable to Non-Executive Directors

Terms of Reference of Nomination & Remuneration Committee *["NRC"]*: All the Directors of the Company are appointed / reappointed by the Shareholders on the basis of recommendations of the Nomination & Remuneration Committee and Board. The Director/(s) are appointed individually. The detailed terms of reference of the NRC is available on the website of the Company at www.hindalco.com

STAKEHOLDERS' RELATIONSHIP COMMITTEE:

Composition of the Committee as on 31st March, 2024:

Mr. Kailash Nath Bhandari
Chairman

Mr. Satish Pai
Member

Mr. Askaran Agarwala
Member

3 Members	**2 Meetings**
33% Independent	**100% Attendance**

The Committee fulfils the requirements of:

- Section 178 of the Companies Act, 2013 and the rules framed thereunder;
- Regulation 20 of the SEBI Listing Regulations and other regulations and laws as applicable and
- Stakeholders Relationship Committee Charter.

Attendance:

Members	Meeting details			
	1	2	Attendance out of	%
	11th April, 2023	10th November, 2023		
Mr. Kailash Nath Bhandari	✓	✓	2 out of 2	100
Mr. Satish Pai	✓	✓	2 out of 2	100
Mr. Askaran Agarwala	✓	✓	2 out of 2	100

✓ - Present ✗ - Leave of Absence due to pre-occupation

**Mr. Sudhir Mital and Mr. Arun Adhikari have been appointed as Members w.e.f. 1st May, 2024.*

Gamut of discussions of the Committee

Status of investor grievances	Issuance of Duplicate / Replacement Share Certificates	Stock of Share Certificates inventory

Terms of Reference of Stakeholders' Relationship Committee *["SRC"]*: In terms of the applicable provisions of the Act and Regulation 20 read with Part D of Schedule II of the SEBI Listing Regulations, the scope, functions and overall responsibility of the SRC is to oversee various aspects of interests of stakeholders of the Company. The term 'Stakeholder' includes Shareholders, debenture holders and other security holders. Ms. Geetika Anand, Company Secretary is the Compliance Officer for resolution of Investors' complaints. Details of Investor complaints is given in General Shareholder Information section of this Report. The detailed terms of reference of the Stakeholders' Relationship Committee is available on the website of the Company at www.hindalco.com.

CORPORATE SOCIAL RESPONSIBILITY COMMITTEE:

Composition of the Committee as on 31st March, 2024:

Mrs. Rajashree Birla
Chairperson

Mr. Yazdi Dandiwala
Member

Mr. Askaran Agarwala
Member

Mr. Satish Pai
Member

4 Members	**1 Meeting**
25% Independent	**75% Attendance**

The Committee fulfils the requirements of:

- Section 135 of the Companies Act, 2013 and the rules framed thereunder;
- CSR Committee Charter.

Corporate Governance Report

Attendance:

Members	Meeting details		
	1 18th May, 2023	Attendance out of	%
Mrs. Rajashree Birla	●	1 out of 1	100
Mr. Yazdi Dandiwala	●	1 out of 1	100
Mr. Askaran Agarwala	●	1 out of 1	100
Mr. Satish Pai	○	0 out of 1	-

● - Present ○ - Leave of Absence due to pre-occupation

**Mr. Sudhir Mital has been appointed as Member w.e.f. 1st May, 2024.*

Gamut of discussions of the Committee

Projects where the Company can contribute	Impact of contributions made by the Company	Budgetary allocation of the contribution

Terms of Reference of Corporate Social Responsibility Committee: ***["CSR"]*:** The Committee provides oversight and guidance on CSR performance and monitor the compliance with the CSR policy, the commitments and the applicable CSR provisions. The Committee formulates and recommends to the Board an annual action plan which includes the modalities of utilisation of the CSR funds and implementation schedules for the projects or programmes undertaken by the Company. The Committee determines the overall scope of, to provide input on and recommend adoption of CSR Report to the Board of Directors of the Company and reviews the effectiveness of the CSR Policy and activities included in the policy. The CSR Report for FY 2023-24 forms part of the Directors' Report as Annexure IV.

The detailed terms of reference of the CSR Committee is available on the website of the Company at www.hindalco.com

RISK MANAGEMENT & ESG COMMITTEE:

Composition of the Committee as on 31st March, 2024:

Mr. Askaran Agarwala
Chairman

Mr. Satish Pai
Member

Mr. Kailash Nath Bhandari
Member

Mr. Praveen Kumar Maheshwari
Member

4 Members	**4 Meetings**
25% Independent	**71% Attendance**

The committee fulfils the requirement of:

- Regulation 21 of SEBI Listing Regulations and
- Risk Management and ESG Committee Charter.

Attendance:

Members	Meeting details					
	1 11th April, 2023	2 10th July, 2023	3 9th October, 2023	4 9th January, 2024	Attendance out of	%
Mr. Kailash Nath Bhandari	●	●	●	●	4 out of 4	100
Mr. Satish Pai	●	●	○	●	3 out of 4	75
Mr. Askaran Agarwala	●	○	○	○	1 out of 4	25
Mr. Praveen Kumar Maheshwari	●	●	●	●	4 out of 4	100
Mr. Anil Mathew[1]	●	●	○	-	2 out of 3	67
Mr. Anil Arya[2]	●	●	●	-	3 out of 3	100
Mr. Unnikrishnan P[3]	●	●	●	-	3 out of 3	100

● - Present ○ - Leave of Absence due to pre-occupation

1. Resigned w.e.f. 29th December, 2023;

2.Resigned w.e.f. 28th December, 2023;

3.Resigned w.e.f 27th December, 2023 and

4.Mr. Arun Adhikari, Mr. Sushil Agarwal and Mr. Sudhir Mital have been appointed as Members w.e.f 1st May, 2024.

Gamut of discussions of the Committee:

Enterprise Risk Management	ESG Initiatives	Hedging and Price Risk Management
Cyber Security	Global trends and external risks	Commodity and Currency Market

Terms of reference of the Risk Management and ESG Committee ***["RM&ESG"]***: Since the Company is in the manufacturing industry, it is prone to inherent business risks. Your Company has in place a Risk Management Policy that covers the inherent business risks and appropriate measures to be taken, to manage uncertainty, changes in the internal and external environment to limit negative impacts and capitalise on opportunities along with minimisation of identifiable risks by the Company.

The Risk Management & ESG Committee is *inter alia* entrusted with the responsibility of monitoring and reviewing the risk management plan, sustainability of the Company and such other functions as may be delegated by the Board, from time to time. The Chairman meets regularly with the Company Secretary to ensure the Committee addresses its governance responsibilities.

The brief description of the terms of reference is available at www.hindalco.com

FINANCE COMMITTEE

The Board has delegated certain powers to the Finance Committee to deal with routine business matters including but not limited to opening of bank accounts, issuing power of attorneys for seamless functioning by the executives, etc. The Committee meets on quarterly basis to oversee various aspects relating to authorizations and authorising officer/(s) to deal in administrative matter/s relating to any Regulatory / Statutory Bodies to facilitate smooth operations of the Company.

Corporate Governance Report

Composition details of the Committee as on 31st March, 2024:

Mr. Satish Pai
Member

Mr. Askaran Agarwala
Member

Attendance:

Members	Meeting details					
	1	2	3	4	Attendance out of	%
	24th May, 2023	8th August, 2023	10th November, 2023	14th February, 2024		
Mr. Satish Pai	✓	✓	✓	✓	4 out of 4	100
Mr. Askaran Agarwala	✓	✓	✓	✓	4 out of 4	100

✓ - Present

**Mr. Praveen Kumar Maheshwari has been appointed as a Member w.e.f. 1st May, 2024.*

Gamut of discussions of the Committee

Regulating Bank accounts of the Company	Regulating Power of Attorney issued by the Company to its officers	Facilitating various administrative functions of the Company including but not limited to taxation matters, logistics, litigation matters, etc.

Terms of reference of the Finance Committee:

The detailed terms of reference of the Finance Committee is available on the website of the Company at www.hindalco.com

PREVENTION OF INSIDER TRADING (PIT) COMMITTEE:

In terms of the provisions of the Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015, *[Insider Trading Regulations]* as amended, the Company has adopted a 'Code of Conduct to regulate, monitor and report trading by designated persons in listed or proposed to be listed securities' of your Company *["the Code"]*. The Code aims at preserving and preventing misuse of unpublished price sensitive information.

All the senior employees of the Company have been covered as a Designated Person under the Company Code and are monitored regularly by the Committee and the Designated Persons are required to provide the periodical disclosures and obtain the pre-clearance for trading in securities of your Company.

Composition details of the Committee as on 31st March, 2024:

Mr. Satish Pai
Member

Mr. Yazdi Dandiwala
Member

Terms of Reference of Committee: The Committee meets on need basis to consider, review and enforce actions for non-compliance of the Code of Conduct. They also monitor and review mechanism to track compliances under Insider Trading Regulations.

The detailed terms of reference of the Prohibition of Insider Trading (PIT) Committee is available on the website of the Company at www.hindalco.com

Corporate Governance Report

DISCLOSURES [as per SEBI Listing Regulations and the Act]

General Body Meeting/Postal Ballot: The 64th Annual General Meeting *["AGM"]* of the Company was held on 22nd August, 2023, *via* video-conferencing, in terms of the General Circular issued by the Ministry of Corporate Affairs.

Mr. Kailash Nath Bhandari, Chairman of the AC, NRC and SRC, was present at the AGM, to answer the queries of the Members of the Company. Details of attendance of Directors at the AGM forms part of this Report.

For matters which are urgent and require Shareholders' approval in the period between the AGMs, the Company seeks the approval of Shareholder' through postal ballot. In compliance with Sections 108 and 110 and other applicable provisions of the Act, read with the related Rules, the Company also provides an electronic voting *[e-voting]* facility to all its Members. During the year under review, resolutions were passed through postal ballot, details of which are provided hereunder:

Details of special resolutions passed in the previous 3 [three] AGMs and through postal ballot:

Year	Mode	Venue	Date & Time	Particulars of Special Resolution
2021-2022	**Annual General Meeting**	Video Conferencing/ Other Audio- Visual Means	23rd August, 2021 at 3:00 p.m.	Re-appointed Mr. Askaran Agarwala *[DIN:00023684]*, who retired by rotation and was eligible, offered himself for reappointment as a Non-Executive Director.
	Postal Ballot	-	-	-
2022-2023	**Annual General Meeting**	Video Conferencing/ Other Audio- Visual Means	23rd August, 2022 at 3:00 p.m.	i. Adopted Hindalco Industries Limited Employee Stock Option and Performance Stock Unit Scheme. ii. Approved extending benefits of the Hindalco Industries Limited Employee Stock Option and Performance Stock Unit Scheme 2022 to the employees of the group Companies including holding, Subsidiary and associate Companies of Company. iii. Approved the (a) use of the trust route for the implementation of the Hindalco Industries Limited Employee Stock Option and Performance Stock Unit Scheme 2022 *["Scheme 2022"]*; (b) secondary acquisition of the equity shares of the Company by the trust; and (c) grant of financial assistance / provision of money by the Company to the trust to fund the acquisition of its equity shares, in terms of the Scheme 2022.
	Postal Ballot *Results can be accessed at* [www.hindalco.com]	-	9th February, 2023	Re-appointed Ms. Alka Bharucha as an Independent Director of the Company for Second term of Five year commencing from July 11, 2023 through July 10, 2028.
2023-2024	**Annual General Meeting**	Video Conferencing/ Other Audio- Visual Means	22nd August, 2023 at 3:00 p.m.	i. Appoint a Director in place of Mrs. Rajashree Birla who retires from office by rotation, and being eligible, offers herself for re-appointment and continuation in office. ii. Change in place of keeping and inspection of Register and Index of Members, etc.
	Postal Ballot Results *can be accessed at* [www.hindalco.com]	-	13th February, 2024	i. Appointment of Mr. Arun Adhikari as an Independent Director. ii. Re-appointment of Dr. Vikas Balia as an Independent Director.

Details of voting pattern of the special resolution passed during the year through postal ballot:

Mode of Voting	Total Shares	No. of Votes Polled	In Favour		Against	
			No. of Votes	% of Votes	No. of Votes	% of Votes
E-voting	2,24,72,16,523	1,92,13,35,335	1,68,59,98,815	87.75	23,53,36,520	12.25
		1,87,70,51,251	1,84,90,80,371	98.51	2,79,70,880	1.49

Person who conducted the Postal Ballot exercise: Ms. Shivangini Gohel, from M/s. Dilip Bharadiya & Associates Practising Company Secretary *[ACS 25740 & CP No. 6740]* conducted the aforesaid postal ballot exercise in a fair and transparent manner.

Whether any special resolution is proposed to be conducted through Postal Ballot: No Special Resolution is proposed to be passed through Postal Ballot as on the date of this Integrated Annual Report.

Procedure for Postal Ballot: In compliance with Regulation 44 of the SEBI Listing Regulations, Sections 108, 110 and other applicable provisions of the Act read with the Rules issued thereunder and the General Circulars issued in this regard by the Ministry of Corporate Affairs *["MCA"]*, the Company provided an e-voting facility to all its Members.

The Company had engaged the services of *InstaVote* by the RTA for the purpose of providing electronic voting facility to all its Members. The Postal Ballot Notice was sent to the Members in electronic form at their email addresses registered with the depositories/Link Intime India Private Limited, the Company's Registrar and Share Transfer Agent *["RTA"]*. The Company also published the notice in the newspapers declaring the details of completion of dispatch, e-voting details, and other requirements in terms of the Act read with the Rules issued thereunder and the Secretarial Standards issued by ICSI. Voting rights were reckoned on the paid-up value of shares of the Company registered in the names of the Shareholders' as on the cut-off date. The notices of aforesaid Postal Ballot are available on the Company's website at www.hindalco.com.

The Scrutinizer submitted his report to the Company Secretary based on the authorisation by the Chairman of the Company, after the completion of scrutiny and the consolidated results of the voting by Postal Ballot were then announced by the Company Secretary.

Corporate Governance Report

CERTIFICATIONS

Code of Conduct: The Code of Conduct as adopted by the Board is applicable to Directors and Senior Management of the Company, the Code is available at www.hindalco.com. The declaration from the Managing Director is annexed as **Annexure A**.

CEO/ CFO Certification: As required under the provisions of Regulation 33 of the SEBI Listing Regulations, Mr. Satish Pai, Managing Director and Mr. Praveen Kumar Maheshwari, Whole-time Director & Chief Financial Officer have reviewed the audited financial statements and cash flow statement for the financial year ended 31st March, 2024 and accordingly have provided a certificate, which is enclosed separately at the end of this Report as **Annexure B**.

Certificate From Practising Company Secretary: A certificate from M/s. Dilip Bharadiya & Associates, Company Secretaries, *[CP No: 6740]* has been obtained, certifying that none of the Directors on the Board of the Company have been debarred or disqualified from being appointed or continuing as Director of a Company by SEBI and Ministry of Corporate Affairs or any other statutory authority and accordingly the same forms part of this Report as **Annexure C**.

The compliance certificate received from M/s. Dilip Bharadiya & Associates *[CP No: 6740]*, Company Secretaries regarding compliance of corporate governance requirements is annexed as **Annexure VIII** to the Report of the Board of Director.

Confirmations:

a. The Company has complied with the requirements specified in Regulations 17 to 27 and Clauses (b) to (i) of Regulation 46(2) of the SEBI Listing Regulations.

b. The Company has complied with all the requirements of the Stock Exchanges and SEBI on matters relating to Capital Markets. There were no penalties imposed or strictures passed against the Company by SEBI, Stock Exchanges on which the shares of the Company are listed or any statutory authority in this regard, during the last 3 years.

c. The Company has not been informed of any agreement under Regulation 30A(1) read with clause 5A of paragraph A of Part A of Schedule III of the SEBI Listing Regulations. Accordingly, there was no requirement for disclosing the same.

d. The Company has complied with all the mandatory requirements of the SEBI Listing Regulations relating to Corporate Governance.

e. Details of Compliance with Mandatory Requirements and Adoption of Non-Mandatory Requirements: The Company has complied with all the mandatory requirements of the SEBI Listing Regulations relating to corporate governance. The status of compliance with discretionary recommendations of Regulation 27 of SEBI Listing Regulations are provided below:

Non-Executive Chairman's Office:

- The position of the Chairman and the Managing Director are separate.
- Your Company maintains a separate office for its Chairman. All necessary infrastructure and assistance are made available to enable him to discharge his responsibilities effectively.

Shareholders' Rights:

Since the quarterly and half yearly financial performance along with significant events are published in the newspapers and are also posted on your Company's website, the same are not being sent to the Shareholders.

Modified Opinion in Auditors' Report:

Your Company's financial statements for the FY 2023-24 do not contain any modified audit opinion.

Reporting of Internal Auditor:

The report of the Internal Auditors is reviewed by the Audit Committee bi-annually.

f. During the year, the Company has not raised any proceeds from public issues, right issues, preferential issues, qualified institutional placement.

Framework for Monitoring Subsidiary Companies: The details of the subsidiaries of the Company have been elucidated in the Directors Report forming part of Annual Report. The Company has complied with the provisions of SEBI Listing Regulations w.r.t material subsidiary for FY 2024.

The Company has in place a policy on Determining Material Subsidiary, duly approved by the Board in conformity with the SEBI Listing Regulations which can be accessed at www.hindalco.com.

List of Material Subsidiaries:

Sr. No.	Name of Material Subsidiary	Name of Statutory Auditors	Date of Appointment of Statutory Auditor	Date of Incorporation	Place of Incorporation
1.	Novelis Corporation	N/A due to local USA laws		15th May, 2003	Texas, USA

Total Fees Paid to Statutory Auditors of The Company:

M/s. Price Waterhouse & Co, Chartered Accountants LLP, are the statutory auditors of the Company for the Financial Year. The total fee for all services paid by the Company and its Subsidiaries to M/s. Price Waterhouse & Co, Chartered Accountants LLP, Statutory Auditors and all the entities in the network firm/ network entity, of which Statutory Auditors are a part, for the FY 2023-24 are as follows:

₹ in crores

Sr. no.	Particulars	By Company	By Subsidiary	Total
1	For Audit &Other Services*	7	78	85

**Other Services includes audit related certifications and attestations.*

Corporate Governance Report

Means of communication:

www.hindalco.com	A separate dedicated section 'Investors' is maintained on the website of the Company for ease of the Shareholders'. The information required to be disseminated by the Company in terms of Regulation 46 and 30 of the SEBI Listing Regulations are uploaded on the website of the Company. These include, more particularly, the following: i. Quarterly financial results and annual financial statements, ii. Investor presentations, press releases, earnings call transcripts, iii. Details of corporate governance policies, Board committee charters, iv. Other quarterly filings and Stock Exchange disclosures.
'The Business Standard' and *'Navshakti'*	The quarterly financial results of the Company are published within the stipulated timeline, in 1 *[one]* English language national daily newspaper and regional language daily newspaper.
hilinvestors@adityabirla.com	The Company has designated e-mail ids for investor relations and Shareholder's assistance.
NEAPS *[NSE Electronic Application Processing System]* & BSE Listing Centre	NEAPS and BSE Listing are web-based application designed by NSE and BSE, respectively, for corporates to make submissions. All periodical compliance filings, *inter alia*, shareholding pattern, corporate governance report, corporate announcements, amongst others, are filed electronically in accordance with the SEBI Listing Regulations. All the disclosures made to the stock exchanges are in a format that allows users to find relevant information easily through a searching tool.
SEBI Complaints Redress System *[SCORES]* 2.0	The Company makes use of this system which is a centralised database of all complaints and enables on-line upload of Action Taken Reports by the Company on complaints received, on-line viewing by investors of actions taken on the complaints and their current status.
Securities Market Approach for Resolution through ODR Portal *[SMART ODR]*	The Company redresses the complaints filed by investors on this new ODR portal of SEBI. In case investor is not satisfied with the reply, online conciliation takes place and Company facilities resolution to complaint redressal through that mode.

EXECUTIVE / NON-EXECUTIVE REMUNERATION

Remuneration Philosophy: Your Company's executive remuneration philosophy supports the design of programs that align executive rewards – including incentive programs, retirement benefit programs, promotion and advancement opportunities, with the long-term success of your Company's Stakeholders.

The executive remuneration policy is designed to attract, retain, and reward talented executives who contribute to your Company's long-term success and thereby build value for stakeholders. It is intended to provide for monetary and non-monetary remuneration elements on a holistic basis; emphasise "pay for performance" by aligning incentives with business strategies to reward executives who achieve or exceed business and individual goals.

Executive pay practices and levels are dynamically tracked and aligned with peer Companies in similar global industries, geographies, size and function. Your Company aims to provide competitive remuneration opportunities to its executives by positioning target total remuneration *[including perks and benefits, annual incentive pay-outs, long term incentive payouts at target performance]* and target total cash compensation *[including annual incentive pay-outs]* at target performance directionally between median and top quartile of the primary talent market. It recognises the size and scope of the role and the market standing, skills and experience of incumbents while positioning its executives. Your Company uses secondary market data only as a reference point for determining the types and amount of remuneration while principally believing that target total remuneration packages should reflect the typical cost of comparable executive talent available in the sector.

Components of Remuneration: The remuneration involves a balance between fixed and incentive pay, reflecting short and long-term performance objectives appropriate to the working of your Company and its goals. A material proportion of compensation for Senior Management is performance based - 25% to 40% of compensation. It increases as the employee grows in the organisation and takes up roles of higher responsibility. The more senior the role, the weightage of business performance on the variable pay also increases in comparison to unit performance and individual performance. This ensures a competitive pay-mix which aims to strike the appropriate balance between key components: (i) Fixed Cash compensation *[Basic Salary + Allowances]* (ii) Annual Incentive Plan (iii) Long-Term Incentives (iv) Perks and Benefits.

Annual incentive plan pay-outs of executives is linked to relevant financial and operational metrics achievement such as return on capital expenditure, return on invested capital, return on equity, ESG performance and their individual performance. Financial and operational metrics are annually aligned with priorities / focus areas for the business. Long-term incentive plans incentivise stretch performance, link executive remuneration to sustained long term growth and act as a retention and reward tool. Stock options are used as the primary long-term incentive vehicles as your Company believes that they best align executive incentives with stakeholder interests. ESOPs are allocated based on Company's performance while also comparing the Total Shareholder Return *["TSR"]* with the performance of peer companies *[i.e. Indian and Global peer companies]*. The period to determine the stock options is 3 years of all the performance-based incentives and the options shall be vested after a maximum period of 4 years. Your Company also grants performance stock units as a secondary long term incentive vehicle, to motivate and retain its executives.

Details of remuneration paid to directors during the financial year 2023-24:

Executive Directors: The NRC while recommending to the Board the remuneration of Executive Directors, considers the performance of the business, individual performance, practices followed in other similar sized global Companies, among others, while also ensuring that the remuneration is in compliance with the terms and conditions of appointment as approved by the Members. All decisions relating to the remuneration of Executive Directors is taken by the Board based on the remuneration policy and in terms of the resolution passed by the Members of your Company.

Non-Executive Directors: Based on the recommendation of the NRC, all decisions relating to remuneration of Directors are taken by your Company's Board in accordance with the Shareholders' approval, wherever necessary.

Sitting fees are paid as under:

- Board: ₹ 50,000 per meeting.
- Audit Committee: ₹ 25,000 per meeting.
- Other Committees: ₹ 20,000 per meeting.

In addition to the sitting fees, your Company also pays commission to the Non-Executive and Independent Directors of an amount not exceeding 1% per annum of the net profit of your Company. The amount of commission payable is determined after assigning weightage to various factors, which, *inter alia*, include providing strategic perspective, Chairmanship and contributions made by the Directors, type of meeting and responsibilities under various statutes, performance evaluation, etc. Based on the performance evaluation of each Director and the remuneration policy, the Board has approved an amount of ₹ 6 crore as commission payable to the Non-Executive Directors for the financial year 2023-24.

Further, requisite disclosure with respect to the details of fixed component and performance linked incentive, in terms of the provisions of Part C of the Schedule V of the SEBI Listing Regulations and in terms of the provisions of sub-clause (IV) of the second proviso to clause (B) of Section II of Part - II of Schedule V of the Act, have been made in the Annual return in Form MGT- 7 disclosed on www.hindalco.com.

Employee Stock Option Scheme: Your Company's Board has delegated to the NRC the administration and superintendence of Employee Stock Option Schemes. Approval of Shareholders is sought for grant of employee stock options *["Options"]* and / or restricted / performance stock units *["RSUs / PSUs"] [collectively "Stock Options"]* to eligible employees as may be determined by the NRC. Presently, stock option schemes are implemented through a trust, wherein the Trust acquires equity shares of your Company through secondary acquisition. Such acquisition in a financial year cannot exceed 2% of the paid-up equity share capital of your Company as at the end of the previous financial year. Further, in terms of the applicable Regulations, the Trust cannot hold more than 5% of the paid-up equity share capital as at the end of the financial year immediately prior to the year in which the Shareholders approval is obtained. Your Company provides financial assistance to the Trust for the secondary acquisition, in one or more tranches. As and when the employees exercise the stock options, the Trust repays the money to your Company.

Corporate Governance Report

FRAMEWORKS & POLICIES

Policy for Prevention of Sexual Harassment at Workplace: The Company has adopted 'Policy for Prevention of Sexual Harassment at Workplace' and 'Anti-fraud Policy' which specifically guarantee the right to 'blow the whistle'. The said policies are also available at www.hindalco.com.

This ensures a work environment that is professional and mature, free from animosity and one that reinforces Hindalco's value of integrity, which includes respect for the individual.

The details of the complaints received / disposed during the financial year 2023-24 are provided in the Director's Report.

Vigil Mechanism and Whistle Blower Policy: The Company has in place a Vigil Mechanism / Whistle Blower Policy which facilitates the stakeholders to have direct access to the management and the Chairman of the Audit Committee, to report concerns about any unethical behaviour, actual or suspected fraud or violation of the Company's code of conduct or ethics policy. It is hereby affirmed that no employee has been denied access to the Chairman of the Audit Committee. The said policies are also available at www.hindalco.com.

Code of Conduct for Prevention of Insider Trading: Your Company also has a 'Code of Conduct to regulate, monitor and report trading by Designated Persons in listed or proposed to be listed securities of Hindalco Industries Limited' which is adhered by designated persons for dealing in securities of the Company.

Weblinks for the Policies / Reports referred to: Your Company has various policies and codes, duly adopted pursuant to the approval of the Board and the same are periodically reviewed by the Board, to incorporate any changes required either in terms of the business of the Company or pursuant to the amendment in the applicable Acts and Regulations including but not limited to the Act and the SEBI Listing Regulations. Click to view details of the policies, codes adopted by the Company and other important links:

Sr. No.	Particulars	Website Link
1.	Policy on Board Diversity	https://www.hindalco.com/upload/pdf/hindalco-policy-on-board-diversity.pdf
2.	Terms and Conditions of Appointment of Independent Directors	https://www.hindalco.com/upload/pdf/terms-and-conditions-independent-Directors.pdf
3.	Familiarisation Programme for Independent Directors	https://www.hindalco.com/about-us/management-team/board-of-directors
4.	Code of Conduct for Board and Senior Management	https://www.hindalco.com/upload/pdf/hindalco-code-of-conduct-BODs-SMP.pdf
5.	Code of practices and procedures for fair disclosure of Unpublished Price Sensitive Information	https://www.hindalco.com/upload/pdf/hindalco-code-conduct-regulate-monitor-report-trading.pdf
6.	Policy on Related Party Transactions	https://www.hindalco.com/upload/pdf/policy-related-party-transactions.pdf
7.	Vigil Mechanism and Whistle-Blower Policy	https://www.hindalco.com/upload/pdf/hindalco-whistle-blower-policy-19.pdf
8.	Policy for determining Material Subsidiaries	https://www.hindalco.com/upload/pdf/hil-policy-on-material-subsidiary.pdf
9.	Archival Policy	https://www.hindalco.com/upload/pdf/HIL-archival-policy-2015.pdf
10.	Prevention of Sexual Harassment (POSH) Policy	https://www.hindalco.com/upload/pdf/hindalco-posh-policy.pdf
11.	Corporate Social Responsibility Policy	https://www.hindalco.com/upload/pdf/hindalco-csr-policy.pdf
12.	Presentation to institutional investors and analysts	https://www.hindalco.com/investor-centre/reports-and-presentations
13.	Quarterly, Half-yearly, Annual Financial Results and Annual Report	https://www.hindalco.com/investor-centre/reports-and-presentations
14.	Financials of subsidiaries	https://www.hindalco.com/investor-centre/reports-and-presentations

**The policies were revised and placed before the board on February 13, 2024. The Board reviewed and approved the same.*

General Shareholder Information

1) 65TH Annual General Meeting ["AGM"] :

Date & Time	Deemed Venue	Book Closure	Dividend Payment Date
Thursday, 22nd August, 2024 at 3:00 p.m. IST through Video Conferencing [VC] or Other Audio-Visual Means [OAVM]	Registered Office of the Company: Hindalco Industries Limited 21st Floor, One Unity Centre, Senapati Bapat Marg, Prabhadevi, Mumbai – 400013. Tel : +91 22 69477000 Fax: +91 22 69477001/69477090 Email : hilinvestors@adityabirla.com Web: www.hindalco.com CIN: L27020MH1958PLC011238	Saturday, 10th August, 2024, to Thursday, 22nd August, 2024 [inclusive of both days]	On or before Tuesday, 27th August, 2024

2) **Financial calendar for FY25:**

Financial year	: 1st April, 2024 to 31st March, 2025
Board Meetings to consider Results for:	
First quarter end	: On or before 14th August, 2024
Second quarter and half year end	: On or before 14th November, 2024
Third quarter end	: On or before 14th February, 2025
Fourth quarter and year end	: On or before 30th May, 2025
Annual General Meeting	: On or before 31st August, 2025

3) **Listing details:**

a) Equity shares

Stock Exchange	ISIN	Stock code	Reuters	Bloomberg
BSE Limited *["BSE"]* Phiroze Jeejeebhoy Towers Dalal Street, Mumbai – 400 001	INE038A01020	500440	HALC.BO	HNDL IN
National Stock Exchange of India Limited *["NSE"]* "Exchange Plaza", Plot No. C-1, Block G, Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051		HINDALCO	HALC.NS	NHNDL IN

b) Global Depository Receipts *["GDRs"]*

Stock Exchange	ISIN	Overseas Depository	Domestic Custodian	Reuters	Bloomberg
Luxembourg Stock Exchange *["LSE"]* 35 A, Boulevard Joseph II L-1840 Luxembourg	US4330641022 CUISP No. 433064300	J.P. Morgan Chase Bank N.A P.O. Box 64504, St. Paul, MN 55164-0504.	Citibank N.A Custodial Services FIFC, 11th Floor, C 54 & 55, G Block, Bandra-Kurla Complex, Bandra [East], Mumbai – 400 098.	HALCg.LU	HDCD LI

Corporate Governance Report

Payment of Listing Fees: Annual Listing Fee for the financial year 2024-25 has been paid to all Stock Exchanges and no amount is outstanding.

Payment of Depository Fee: Annual Custody/Issuer fees is being paid by the Company based on invoices received from National Securities Depository Limited *["NSDL"]* and Central Depository Services (India) Limited *["CDSL"]*.

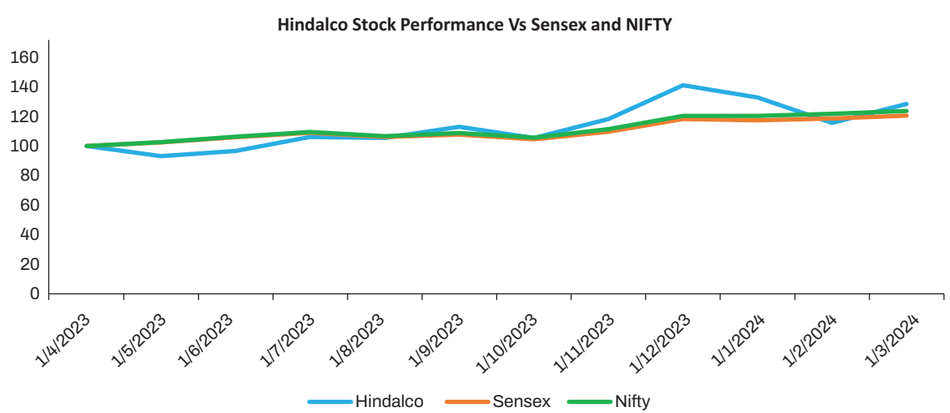
4) **Market Price Data - The Monthly High and Low Prices of The Company's Shares at BSE and NSE for the Financial Year ended 31st March, 2024.**

FY24	BSE (In ₹)				NSE (In ₹)				LSE (In $)		
	High	Low	Close	Volume (Nos.)	High	Low	Close	Volume (Nos.)	High	Low	Close
Mar-24	570	501	560	40,25,598	567	501	560	12,01,00,188	6.75	6.05	6.70
Feb-24	609	497	503	70,40,004	609	496	504	21,82,83,503	7.25	6.05	6.05
Jan-24	621	538	579	45,39,185	621	538	579	10,86,81,900	7.40	6.50	7.00
Dec-23	618	514	615	53,12,667	618	514	615	11,91,83,699	7.40	6.20	7.40
Nov-23	523	456	515	74,97,458	523	456	516	11,15,91,841	6.20	5.55	6.15
Oct-23	495	449	460	56,42,765	495	449	460	10,72,12,114	5.85	5.45	5.55
Sep-23	509	461	493	52,64,919	509	462	493	13,73,46,632	6.05	5.60	5.95
Aug-23	472	438	459	45,99,616	472	438	460	11,67,14,223	5.70	5.30	5.55
Jul-23	463	417	462	37,37,154	463	417	463	11,53,04,582	5.56	5.07	5.56
Jun-23	433	406	421	33,69,716	433	406	421	11,13,96,869	5.22	4.47	5.12
May-23	450	398	406	42,17,036	450	398	406	13,80,78,850	5.45	4.81	4.89
Apr-23	437	394	436	27,77,711	437	394	436	8,24,10,214	5.35	4.86	5.35

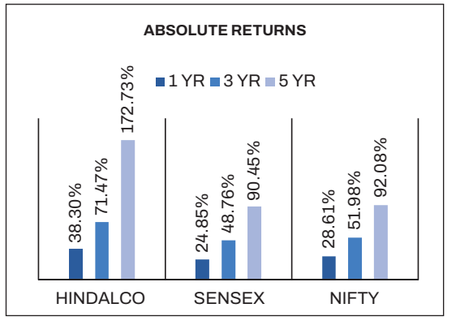
Source: NSE, BSE & LSE website

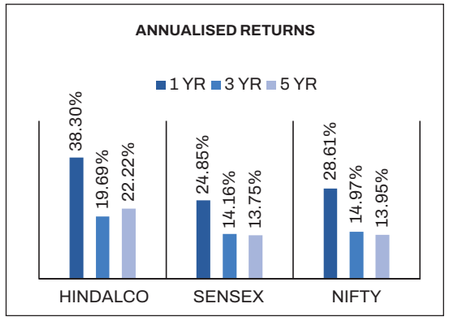
5) Stock Performance in Comparison to Broad-Based Indices

The chart below shows the comparison of the Company's monthly share price movement vis-à-vis the movement of the BSE Sensex and NSE Nifty 50 for the financial year ended 31st March, 2024.



6) Stock Returns





7) In case the securities of the Company are suspended from trading, reasons thereof

The securities of the Company were not suspended from the trading during the financial year 2023-24.

8) Registrar and Share Transfer Agent and Share Transfer System

Link Intime India Private Limited is the Registrar and Share Transfer Agent *["RTA"]* of the Company w.e.f 7th July, 2023. Until then the Company had in-house Share transfer registry.

Transmission, dematerialisation of shares, issue of duplicate share certificates, dividend payment, redressal of investor grievances and all other shareholder related matters are attended to and processed by the Company's RTA.

Shareholder Transactions: The Securities and Exchange Board of India *["SEBI"]* has, effective from 1st April, 2019, prohibited the physical transfer of shares of listed companies, mandating that all transfers be done in dematerialized *["demat"]* form.

Trading in shares of your Company is permitted only in dematerialised form.

SEBI in continuation of its efforts to enhance ease of dealing in securities market by investors has mandated the listed entities to issue securities for the following investor service requests only in dematerialised form:

i. issue of duplicate securities certificate;
ii. claim from unclaimed suspense account;
iii. renewal/exchange of securities certificate;
iv. endorsement;
v. sub-division/ splitting of securities certificate;
vi. consolidation of securities certificates/folios and
vii. transmission and transposition.

Further, SEBI has also simplified the process for transmission of shares and issue of duplicate share certificates to make it more efficient and investor friendly.

The manner and process of making application as per the aforesaid revised framework and operational guidelines thereto are available on the website of the RTA at https://liiplweb.linkintime.co.in/client-downloads.html and the Company at www.hindalco.com

Transactions involving issue of share certificates, namely, issuance of duplicate share certificates, split, rematerialisation, consolidation, and renewal of share certificates, etc. are approved by the Stakeholders' Relationship Committee of the Board of Directors of the Company.

Corporate Governance Report

After due verification, the requests for dematerialization of shares are processed by RTA and confirmation thereof is given to the respective Depositories i.e., NSDL and CDSL, within the prescribed time limit.

The Company on a yearly basis, files with the Stock Exchanges:

a. a compliance certificate duly signed by both, the Compliance Officer of the Company and the authorized representative of the RTA certifying that all activities in relation to share transfer facility is maintained by Link Intime India Private Limited, a SEBI approved Category – I, Registrar and Share Transfer Agent registered with SEBI vide Registration No.: INR000004058.

b. a certificate of compliance from a Company Secretary in practice confirming issue of Letter of Confirmation within a period of 30 days of lodgment of investor service requests as prescribed in Regulation 40(9) of the Listing Regulations read with the SEBI Notification No. SEBI/LAD-NRO/GN/2022/66 dated 25th January, 2022 and SEBI Master Circular No. SEBI/HO/MIRSD/POD-1/P/CIR/2023/70 dated 17th May, 2023 [including any statutory modification(s) and/or re-enactment(s) thereof for the time being in force].

During the year, all the requests received from the Shareholders' by the Company or its RTA were addressed in accordance with the timelines as prescribed by the Statutory Authorities, from time to time.

Shareholder Engagement: The officials of the Company and RTA on a continuous basis engage with the Shareholders', to explain them the procedure and documents required for processing their service requests.

Once the Company or RTA establishes contact with the Shareholders', all the efforts are made to enable the Shareholders' to submit requisite and valid documents and approve their service request in one go. The Company has always regarded shareholder engagement as one of the key anchors towards achieving a better corporate governance.

Review of Service Standards Adhered by RTA With Respect to Share Related Activities: The Company has agreed service timelines and Standard Operating Procedures *["SOPs"]* for various shareholder related services with its RTA. Further, the Secretarial Department of the Company on an on-going basis, engages with the officials of RTA at various levels for review of these SOPs and other share related activities to ensure that the shareholder practices are investor friendly and effective in time. Periodic meetings and discussions are held to understand the concerns of Shareholders', deviations, if any, in the agreed timelines for processing investor service requests, best practices, and other measures to strengthen Shareholders' related services.

In addition, internal audit is carried out on an annual basis by a firm of independent professionals and periodically by the internal audit team of the Company.

SWAYAM' – Investor Self-Service Portal

During the year under review, RTA of the Company has launched *'SWAYAM'*, Investor Self-Service Portal, designed exclusively for the investors serviced by the RTA of the Company. *'SWAYAM'* is a secure, user-friendly platform that empowers investors to effortlessly access information through a dashBoard and avail various services in digital mode.

Following are the key features and benefits of *'SWAYAM'* Portal:

- Updated status on electronic holdings across various companies serviced by the RTA and its subsidiaries.
- Generating and tracking of corporate actions.
- Generate and track service requests/complaints raised on this portal.
- Shareholders' holding shares in physical form can register on the said Portal only after updating their KYC details in their folio.

The investors can visit and access the *'SWAYAM'* Portal at https://swayam.linkintime.co.in/#.

9) Investor Grievance & Investor Contacts

The Board has delegated to the SRC to examine and redress complaints by Shareholders' and investors. The status of quarterly complaints is reported to the Board of Directors of the Company.

The Company and its RTA constantly monitors the Investor Complaints Module as available on the BSE Listing Portal, NSE Electronic Application Processing System *["NEAPS"]* Portal, SEBI Complaints Redress System *["SCORES"]* Portal and Online Dispute Resolution *["ODR"]* Portal to track and redress the investor complaints and disputes in a speedy manner.

Revised framework for handling and monitoring of investor complaints received through SCORES: SEBI has requested the shareholder to approach the Company directly at the first instance for their grievance. If the Company does not resolve the complaint of the Shareholders' within stipulated time, they may then lodge the complaint with SEBI/Stock Exchanges for further action.

Further, SEBI *vide* its Circular No. SEBI/HO/OIAE/ IGRD/CIR/P/2023/156 dated 20th September, 2023 read with Circular No. SEBI/HO/OIAE/IGRD/ CIR/P/2023/183 dated 1st December, 2023 has notified the revised framework for handling and monitoring of investor complaints received through SCORES platform by the Company and designated Stock Exchanges effective from 1st April, 2024. The Shareholders' can access the new version of SCORES 2.0 at https://scores.sebi.gov.in.

Corporate Governance Report

The revised timeline and process is as below:

Stage 1 - Approach to Company and Share Transfer Agent of the Company

Investors are requested to first approach the Company and/or Registrar and Share Transfer Agent in accordance with the Investor's Grievance Redressal Policy of the Company.

01

Stage 2 - Lodgement of complaints on SCORES Portal

If a Shareholder is unhappy with the company's response, they can lodge a complaint on the SCORES Portal. This will be forwarded to the Company, with a copy sent to the Stock Exchanges for monitoring.

02

Stage 3 - Submission of Action Taken Report by the Company

The Company will upload the Action Taken Report *["ATR"]* within 21 days from the date of receipt of complaint which will be automatically routed to the complainant through SCORES Portal.

03

Stage 4 - First Review of the complaint

If the complainant is dissatisfied with the ATR within 15 days, or if the Company fails to submit it within 21 days, the Designated Body will review the complaint. The Company must then provide the ATR or clarification within the timeline set by the Designated Body, which will upload the ATR on SCORES within 10 days of the review.

04

Stage 5 - Second Review of the Complaint

If the complainant is dissatisfied with the ATR from Designated Body within 15 days, or if no ATR is received within 10 days, SEBI may conduct a second review. The complaint is resolved or closed only when SEBI formally disposes of it.

05

Stage 6 - Online Dispute Mechanism/ Other Civil Remedies

After examination or SEBI review, complaints will be closed on the SCORES Portal with closure remarks. SEBI may suggest the Online Dispute Resolution Mechanism if needed, and complainants have other options as well.

06

Online Dispute Resolution Portal: SEBI *vide* its Circular No. SEBI/HO/OIAE/OIAE_IAD-1/P/ CIR/2023/131 dated 31st July, 2023 *[subsumed as part of the SEBI Master Circular No. SEBI/HO/OIAE/OIAE_ IAD-3/P/CIR/2023/195 dated 28th December, 2023]* have issued a Circular for online resolution of disputes in the Indian securities market.

With the said Circular, the existing dispute resolution mechanism in the Indian securities market is being streamlined under the aegis of Stock Exchanges and Depositories by expanding their scope and by establishing a common SMART ODR which harnesses online conciliation and online arbitration for resolution of disputes arising in the Indian securities market.

The said Circular, *inter alia*, details about the following key aspects:

- Investors, listed companies, specified intermediaries, and regulated entities have been covered under the ambit of ODR Portal;
- Introduction of a common ODR Portal;
- Process for initiation of the dispute resolution process on ODR Portal;
- Procedure for conciliation and arbitration, its form of proceedings and fees & charges thereto and
- Roles and responsibilities of Market Infrastructure Institutions like Stock Exchanges and Depositories and Market Participants like listed entity and RTA.

The aforesaid Circular issued by SEBI in this regard can be accessed on the Company's website at www.hindalco.com

Further, the Shareholders' can access the ODR Portal at https://smartodr.in/login.

Statistics of Investor Complaints: During the year under review, the Company received 35 complaints from the Shareholders'. The RTA attends to investor grievances in consultation with the Secretarial Department of the Company.

Nature of Complaints	Number of complaints			
	At the start of the year	Received during the year	Redressed during the year	Pending at the end of the year
Non-Receipt of Annual Report	-	2	2	-
Non-Receipt of Dividend	-	9	9	-
Others	-	24	23	1
Total	-	35	34	1

1. *Nature of complaints in the category "Others" includes dematerialization of shares, Issue of share certificates, KYC updation, Transmission of shares, etc.*
2. *To the best of our knowledge, all the complaints were resolved to the satisfaction of the complainants.*

10) Dividend

Dividend declared for the last 7 *[seven]* years:

Financial Year	Date of Declaration	Dividend per share* [in ₹]	% to face value
2022-23	22nd August, 2023	3	300
2021-22	23rd August, 2022	4	400
2020-21	23rd August, 2021	3	300
2019-20	10th September, 2020	1	100
2018-19	30th August, 2019	1.2	120
2017-18	21st September, 2018	1.2	120
2016-17	13th September, 2017	1.1	110

** Equity Share of face value of ₹ 1 each.*

The Company provides the facility for remittance of dividend to Members through DC *[Direct credit]* / NACH *[National Automated Clearing House]* / NEFT *[National Electronic Funds Transfer]*. In cases where the core banking account details are not available, the Company will issue the dividend warrants/demand drafts mentioning the existing bank details available with the Company.

Members who have not opted for remittance of dividend through electronic mode and wish to avail the same are required to provide their bank details, including IFSC *[Indian Financial System Code]* and MICR *[Magnetic Ink Character Recognition]*, to their respective Depository Participants *["DPs"]* for shares held in demat form or to the Company's RTA for shares held in physical form, as the case may be, in order to ensure safe and speedy credit of their dividend into their Bank account.

Dividend income is taxable in the hands of Shareholders' w.e.f. 1st April, 2020 and the Company is required to deduct tax at source *["TDS"]* from dividend paid to Shareholders' at the prescribed rates. For the prescribed rates for various categories, the Shareholders' are requested to refer to the Finance Act, 2020 and amendments thereof. A separate e-mail communication was sent to the Members, informing the relevant procedure to be adopted by them/documents to be submitted for availing the applicable tax rate. The said communication and draft of the exemption forms and other documents are available on the Company's website at www.hindalco.com

Corporate Governance Report

The Company sends TDS certificate to the Shareholders' at their registered email address or postal address, as the case may be, post payment of the dividend in terms of applicable provisions of the law.

The Shareholders' are requested to note that as per the provisions of the SEBI Circular No. SEBI/HO/ MIRSD/MIRSD-PoD-1/P/CIR/2023/37 dated 16th March, 2023 *[subsumed as a part of the SEBI Master Circular No. SEBI/HO/MIRSD/POD-1/P/CIR/2024/37 dated 7th May, 2024]*, physical folios wherein PAN, KYC, and Nomination details are not registered shall be eligible for any payment including dividend, only through electronic mode with effect from 1st April, 2024. An intimation shall be sent by the Company to such Shareholders' whose details are not registered that their payment is due and has been withheld. Further, the same shall be released electronically only upon registering the aforesaid required details.

11) Transfer Of Unclaimed Dividend and Equity Shares To Investor Education And Protection Fund Account

In terms of the provisions of the Act, dividend for the financial year 2016-17 and the dividends for the subsequent financial years, which remain unpaid or unclaimed for a period of consecutive seven years will be transferred to IEPF.

During the year ended 31st March, 2024, the Company has transferred ₹ 72,24,526 to the IEPF being the unclaimed / unpaid dividend for 2015-16. Before transferring the unclaimed dividends to IEPF, the Company issues individual notices to all Shareholders' who have not claimed dividend for the last seven consecutive years. As required in terms of the Secretarial Standard on Dividend *["SS-3"]*, details of unpaid dividend account and due dates of transfer to the IEPF is given below:

Financial year	Due date of transfer to IEPF	Amount
2016-2017	20th October, 2024	79,42,886
2017-2018	27th October, 2025	66,84,044
2018-2019	7th October, 2026	60,64,039
2019-2020	21st October, 2027	46,99,498
2020-2021	1st October, 2028	1,15,62,366
2021-2022	30th September, 2029	1,34,02,949
2022-2023	30th September, 2030	85,76,661

Further, in terms of the provisions of Act and IEPF Rules the Company has already transferred 4,16,730 equity shares pertaining to the financial year 2015-16 to the IEPF after providing necessary intimations to the relevant Shareholders'.

Details of unpaid / unclaimed dividend and equity shares for the financial year 2015–16 is uploaded on the website of the Company as well as that of the Ministry of Corporate Affairs, Government of India *["MCA"]*. No claim shall lie against the Company in respect of unclaimed dividend amount and equity shares transferred to the IEPF and IEPF Suspense Account, respectively.

Shareholders' can however claim the unclaimed dividend amount and the underlying equity shares corresponding thereto from the IEPF Authority by following the procedure set out below:

1. Submit self-attested copies of documents provided in the IEPF- 5 help kit, which is available on IEPF website (www.iepf.gov.in) to the Company.
2. After verification of the aforesaid documents submitted, Company will issue an entitlement letter.
3. File Form IEPF-5 on IEPF website and send self-attested copies of IEPF-5 form along with the acknowledgement, Indemnity bond and entitlement letter to the Company.
4. On receipt of the physical documents mentioned above, Company will submit e-Verification report, for further processing by the IEPF Authority.

12) Unclaimed Shares

There were no Equity Shares lying in the Unclaimed Suspense Account at the beginning, during and end of the year.

In accordance with the requirements of the Company has opened a Suspense Escrow Demat Account with the DP for transfer of shares lying unclaimed for more than 120 days from the date of issue of Letter of Confirmation to the Shareholders' in lieu of physical share certificate(s) to enable them to make a request to DP for dematerialising their shares.

During the year under review, 10,716 shares pertaining to 4 Shareholders' were transferred to the Company's Suspense Escrow Demat Account.

Further, request from 3 Shareholders' holding in aggregate 1,750 shares was received for release of their shares from the said suspense escrow demat account of the Company.

All the corporate benefits against these shares like bonus shares, split, etc., would also be transferred to Suspense Escrow Demat Account of the Company. While the dividend for the shares which are lying in Suspense Escrow Demat Account would be credited back to the relevant dividend accounts of the Company. The voting rights on shares lying in Suspense Escrow Demat Account shall remain frozen till the rightful owner claims the shares.

13) Details of Nodal Officer

Sr.	Name	Title	Email	Contact
1	Ms. Geetika Anand Company Secretary & Compliance Officer	Nodal Officer	hilinvestors@adityabirla.com	+91 22 6662 6666 / 6947 7000
2	Mr. Preyansh Vyas Manager – Company Secretary	Deputy Nodal Officer		

14) Shareholding Details

Distribution of shareholding of shares of the Company as on 31st March, 2024

Shares From	Shares To	Shareholders' (Nos.)	Holders (%)	Shares Held (Nos.)	Holding (%)
0	1,000	6,38,285	96.97	5,30,07,246	2.36
1,001	2,000	8,987	1.37	1,31,20,315	0.58
2,001	5,000	6,055	0.92	1,92,01,273	0.85
5,001	10,000	2,189	0.33	1,56,21,138	0.70
10,001	50,000	1,653	0.25	3,43,88,795	1.53
50,001	1,00,000	832	0.13	21,57,04,197	9.60
1,00,001 & above		242	0.04	1,89,61,73,559	84.38
Total		6,58,243	100.00	2,24,72,16,523	100.00

Corporate Governance Report

Categories of Equity Shareholding

Category	Equity Shares of ₹ 1 each	
	Shares held (Nos.)	Shareholding (%)
Promoter and Promoter Group[1]	77,84,64,497	34.64
Mutual Funds & Alternate Investment Funds	31,10,68,210	13.9
Banks, Insurance Companies, NBFCs	23,74,05,496	10.61
Provident Fund/ Pension Fund/ Sovereign Wealth Funds	3,11,74,335	1.39
Foreign Portfolio Investors	60,28,08,921	26.95
GDRs[2]	8,32,07,962	3.7
Individuals	12,59,41,751	5.63
Investor Education and Protection Fund (IEPF)	45,77,883	0.2
Domestic Body Corporates	1,08,48,605	0.48
NRI/Overseas Body Corporates/Foreign National	4,00,51,375	1.79
Shares held by Employee Trust	1,02,76,885	0.46
Others	1,13,90,603	0.51
Total	2,24,72,16,523	100.00

1. *All the Shareholding of Promoter & Promoter group is in dematerialized form.*
2. *Excludes 1,45,42,309 GDRs, held by Promoter Group Companies.*

Top 10 Equity Shareholders'

Sr. No.	Name of the Shareholders'[1]	Equity shares held (Nos.)	Holding (%)
1.	IGH Holdings Private Limited	35,00,88,487	15.58
2	Birla Group Holdings Private Limited	22,82,92,308	10.16
3	Life Insurance Corporation of India & its Associate Funds	14,83,91,917	6.60
4	SBI Arbitrage Opportunities Fund	10,42,44,953	4.64
5	Morgan Guaranty Trust Company of New York[2]	9,77,50,271	4.35
6	Grasim Industries Limited	8,80,48,812	3.92
7	Government of Singapore	7,15,95,902	3.19
8	ICICI Prudential Balanced Advantage Fund	5,06,15,567	2.25
9	Pilani Investment Industries Corporation Limited	2,98,57,969	1.33
10	NPS Trust A/C UTI Retirement Solutions Limited- Apy Fund Scheme	2,84,54,060	1.27

1. *Shareholding is consolidated based on Permanent Account Number (PAN) of the shareholder.*
2. *Includes 1,45,42,309 GDRs, held by Promoter Group Companies.*

15) Dematerialisation of Shares

Break-up of shares in physical and demat form:

The shares of the Company are compulsorily traded in dematerialised form on the stock exchanges. As on 31st March, 2024, ~99.98% shares of the Company were held in dematerialised form.

Pursuant to the amendment in Listing Regulations, post 1st April, 2019, except in case of transmission or transposition of securities, requests for effecting transfer of securities shall not be processed unless the securities are held in the dematerialised form with a depository.

The equity shares of the Company are freely tradable in the market and are among the most liquid and actively traded shares in the stock exchanges. Also, the entire shareholding of the Promoter and Promoter Group is in dematerialised form.

The quarterly shareholding pattern filed with the stock exchange(s) can also be accessed on the website of the Company at www.hindalco.com.

Reconciliation of share capital audit:

As required by the SEBI (Depositories and Participants) Regulations, 2018, quarterly audit of the Company's share capital is being carried out by an independent external auditor with a view to reconcile the total share capital admitted with NSDL and CDSL and held in physical form, with the issued and listed capital. The Auditor's Certificate regarding the same is submitted on quarterly basis to BSE and NSE and is also placed before the Board of Directors of the Company.

16) Outstanding GDRS/Warrants and Convertible Bonds

9,77,50,271 GDRs *[Previous Year: 9,93,32,653 GDRs]* were outstanding as on 31st March, 2024. Each GDR represents one underlying equity share of the Company. There were no warrants/convertible bonds outstanding as on 31st March, 2024.

17) Credit Rating

As on 31st March, 2024, the Company had the following credit ratings:

Instrument	Rating	Rating Agency	Rating Action
Long Term Bank Facilities: *[Term Loan and Fund based]*	AA+ Stable	CARE	Reaffirmed
Long Term / Short term Bank facilities: *[Non-Fund based]*	AA+ Stable/A1+	CARE	
Other Instruments *[Commercial Paper]*	A1 +	INDIA RATINGS/ CRISIL	

18) Commodity Price Risk or Foreign Exchange Risk and Hedging Activities

Your Company hedges its foreign currency exposure in respect of its imports and exports as per its policies. Your Company has constituted a Risk Management Committee by the name and style of "Risk Management & ESG Committee" consisting of the Directors of your Company. Your Company hedges commodity / foreign exchange from time to time considering various factors as per the policy of the Company.

The details as required under SEBI Listing Regulations is as below:

1. Risk management policy of the listed entity with respect to commodities including through hedging. The Company has a Risk Management Policy for managing its commodity price risk. The policy captures the objectives of commodity risk management and the treatment of different types of exposures. The policy lists down the hedging instruments that can be used, the hedge coverage ratios for different tenors and mentions the risk management structure at the Company.

2. Exposure of the listed entity to commodity and commodity risks faced by the entity throughout the year:

a. Total Exposure of the listed entity to commodities : ₹ 12,14,604 millions

Corporate Governance Report

b. Exposure of the entity to various commodities is as below:

Commodity Name	Nature of Risk *[Physical]*	Unit of Measurement	Exposure in INR towards the commodity *[₹ in Million]*	Exposure in Quantity terms towards the commodity	% of such exposure hedged through commodity derivatives				
					Domestic Market		International Market		Total
					OTC (i)	Exchange	OTC (i)	Exchange	
Aluminium	Sell	MT	3,01,572	13,73,401	-	-	11	-	11
Furnace Oil/LSHS/LDO	Buy	MT	8,068	1,61,648	-	-	32	-	32
Imported Coal	Buy	MT	2,628	2,78,573	-	-	-	-	-
Copper	Buy	MT	3,43,896	5,01,898	-	-	26	5	31
Copper	Sell	MT	3,72,394	5,07,555	-	-	23	7	30
Silver (Oz)	Buy	T/Oz	4,918	31,98,414	-	-	100	-	100
Silver (Oz)	Sell	T/Oz	6,540	31,58,824	-	-	100	-	100
Gold (KG)	Buy	KG	80,550	16,234	-	100	-	-	100
Gold (KG)	Sell	KG	93,036	15,271	-	100	-	-	100

i. Over the Counter.

ii. Table above includes Exposure and % Hedges for FY 24 only. Details of hedges done for future years has not been captured here.

iii. The table above includes commodities where a liquid derivative market exists.

iv. The Company has price risk on commodities where an active derivative market does not exist, like - Caustic Soda, Aluminium Fluoride, CP Coke, Alumina, Bauxite etc. These Commodities are not included in the table above.

v. The Company maintains offset hedge book to eliminate the "pricing" timing mismatch for buy and sell position of Copper, Silver and Gold. Accordingly, exposure of copper, buy position and sell position naturally hedged is 55.2 % and 68.5 %, respectively. In case of Copper Buy exposure, 13.7% is not hedged represents unpriced transactions as of 31st March, 2024 as the same will be hedged as and when they are priced, as per Company's policy. In case of copper sell exposure, 1.8% is unpriced transactions as of 31st March, 2024 as the same will be hedged as and when they are priced, as per Company's policy.

vi. The Company has strategic view-based exposure for Copper, Gold, and Silver. However, the same is not included above as it is a small portion of the overall Copper, Gold & Silver volumes.

vii. The Company procures part of its Alumina requirement from its wholly owned subsidiary, Utkal Alumina International Limited and the same is not included.

The Company faces commodity price risk on purchase of its raw material as well as on sales of its products. The Company categorizes its price risk in broadly 2 categories - Offset Hedge Exposure and Strategic View Based Exposure. Under the Offset Hedge Program, we use derivative products to eliminate the price risk arising due to timing mismatch whereas for Strategic View Based exposure, derivative instruments are used to manage the price risk for future tenor. Hedging is done for commodities where an active derivative market exists.

19) Service of documents in Electronic Form

In compliance with various MCA and SEBI Circulars, Notice of the AGM along with the Integrated Annual Report for the financial year 2023-24 is being sent only through electronic mode to those Shareholders' whose e-mail ID are registered with the RTA/Depositories. Shareholders' may note that the Notice and Annual Report for the year will also be available on the Company's website at www.hindalco.com, websites of the Stock Exchanges i.e. BSE and NSE at www.bseindia.com and www.nseindia.com respectively, and on the website of RTA at https://instavote.linkintime.co.in/.

20) Plant Locations

Aluminium Facilities		
Renukoot P.O. Renukoot -231217 Dist Sonebhadra, Uttar Pradesh Tel : (05446) 252077/79 Fax: (05446) 252107/426	**Renusagar** P. O. Renusagar- 231218 Dist. Sonebhadra Uttar Pradesh Tel:(05446)277161-3/ 278592-5 Fax: (05446) 277164/	**Alupuram Extrusions** Alupuram, P.B. No.30 Kalamassery - 683 104 Dist: Ernakulam, Kerala Tel:(0484)2532441-48 Fax: (0484) 2532468
Hirakud Smelter & Power Post Box No.12 Hirakud 768 016 Dist: Sambalpur Orissa Tel: (0663) 2481307 Fax: (0663) 2481342/365 Fax: (0663) 2541642	**Mahan** Hindalco Industries Limited NH-75 E, Singrauli, Sidhi Rd P.O Bargawan Pin:486886 Dist : Singrauli MP Tel : 0780-5281014	**Aditya Aluminium** Hindalco Industries Limited Lapanga Dist Sambalpur-768212 Odisha Tel: 0663-2114424 Fax: 0663-2590434
Taloja Plot 2, MIDC Industrial Area Taloja A.V., Dist : Raigad Navi Mumbai - 410 208 Maharashtra Tel: (022) 2741 2261, 66292929 Fax: (022) 2741 2430/31	**Belur** 39, Grand Trunk Road Belurmath 711 202 Dist: Howrah West Bengal Tel: (033) 2654 7210/12 Fax: (033) 2654 9982/5740	**Hirakud FRP** Hindalco Industries Limited Hirakud-768016 Dist: Sambhalpur Odisha Tel: (0663) 6625000 Fax No(0663) 2481344
Mouda Village Dahali Ramtek Road Mouda, Nagpur – 441 1104 Tel: (07115) 660777/786	**Kuppam** 255, 257, 279, Industrial Park Kuppam, Chitoor Andhra Pradesh - 517425	**Chakan** Building No. B3 Gate No. 31 to 34 Mahalunge Road, Varale Chakan, Tal. Khed, Pune – 410501 Maharashtra
Copper		
Birla Copper Division P.O. Dahej, Lakhigam Dist. Bharuch – 392 130 Gujarat Tel: (02641) 256004/06 251009 Fax: (02641) 251002	**Copper Tube,** **IGT (Inner Groove Tube)** Address: Plot No. 187/P & 187/P/1/B/2 187/P & 187/P/1/B/3, 187/P & 187/P/1/B/4, 187/P & 187/P/1/B/5 187/P & 187/P/1/B/6, Waghodia GIDC Taluka: Waghodia District: Vadodara, Gujarat	**E-waste & copper recycling plant** Khasra no.-686 Payal Industrial Park (PIP) Pakhajan, Tehsil Vagra District Bharuch (Gujarat)
Copper Alloy Rod **Bhiwadi** Plot No- SP1037 RIICO Industrial Area Chopanki, Bhiwadi Distt-Khairthal, Tijara-301019 *[unit closed w.e.f April 30, 2024]*		

Corporate Governance Report

Chemicals	
Muri Alumina Post Chotamuri-835 101 Dist: Ranchi, Jharkhand Phone: (06522) 244253/334 Fax: (06522) 244342	**Belagavi** Village Yamanapur Belgaum 590 010 Karnataka Tel: (0831) 2472716 Fax: (0831) 2472728

Extrusion
Silvassa Extrusion Survey No. 111/1 Village Khutli, Khanvel Silvassa-396230 U.T. of Dadra & Nagar Haveli Tel: (0260) 6618100 Fax: (0260) 2677025

Captive Power Plant
Hirakud CPP Hindalco Captive Power Plant Near Durga Mandir Hirakud Sammbalpur- 768016, Odisha

Mines		
Chakla Coal Mines Plot 894, Kanchan Nagari PO + PS - Chandwa District - Latehar Jharkhand - 829203 Tel : 0651 2247901	**Lohardaga Mines** Mines Division Court Road Dist: Lohardaga 835 302 Jharkhand Tel: (06526) 224112/224015	**Samri Mines** Hindalco Colony Baba Chowk Jashpur Mode P.O: Kusumi 497222 Dist:Balrampur-Ramanujganj Tel:(07778) 274325
Gare Palma Mines (IV/4 & V/5) Underground Coal Mines Plot 894, Kanchan Nagari Village & Post Milupura Tehsil Tamnar Dist: Raigarh Chhattisgarh:496107 Tel: +91 776 2228212	**Kathautia Coal Mine** Kathautia Open Cast Coal Mine(Koccm) Village Kathautia P.O Naudiha PS Pandwa, Dist: Palamau Jharkhand:822123 Tel: (0651) 2247900	**Maliparbat Bauxite Mines** 42/1041, Satya Nagar College Road Semiliguda Dist : Koraput Odisha - 764036 PH 07077293606

21) Correspondence with the Company

Shareholders' / Beneficial Owners are requested to quote their Folio Number / DP & Client ID Numbers as the case may be, in all correspondence with the Company. All correspondence regarding shares and debentures of the Company should be addressed to the Company or its RTA at the addresses mentioned below:

Registered Office	Registrar & Share Transfer Agent
Hindalco Industries Limited 21st Floor, One Unity Center, Senapati Bapat Marg, Prabhadevi, Mumbai – 400013 Tel: 022 69477000 / 69477150 Fax: 022 69477001/69477090 Email: hilinvestors@adityabirla.com Website: www.hindalco.com Contact Person: Mr. Ravindra Phulpagar	**Link Intime India Private Limited** C-101, 247 Park, L.B.S. Marg, Vikhroli (West), Mumbai - 400083 Phone: +91 22 49186000 Fax: +91 22 49186060 E-mail: rnt.helpdesk@linkintime.co.in Website: www.linkintime.co.in Contact Person: Mr. Ravindra Utekar

Profile

Mr. Kumar Mangalam Birla

Mr. Kumar Mangalam Birla is the Chairman of the Indian multinational Aditya Birla Group, which operates in 40 countries across six continents. He is a Chartered Accountant and holds an MBA degree from the London Business School.

Mr. Birla chairs the Boards of all major Group companies in India and globally including Novelis Inc., Birla Carbon, Aditya Birla Chemicals, Domsjö Fabriker, Terrace Bay Pulp Mill, Hindalco Industries Ltd., Grasim Industries Ltd., UltraTech Cement Ltd., Aditya Birla Fashion and Retail Ltd. and Aditya Birla Capital Ltd. In the 28 years, at the helm of the Group, he has accelerated growth, built meritocracy and enhanced stakeholder value. In the process he has raised the Group's turnover by well over 30x to $65 billion.

He has been the architect of over 40 successful acquisitions by the Group in India and abroad, the highest by any Indian multinational. Key acquisitions include Aleris Corporation, Novelis, the second largest acquisition ever by an Indian company, Columbian Chemicals, Domsjö Fabriker, CTP GmbH – Chemicals & Technologies, Jaypee Cement, Binani Cement, Larsen & Toubro's cement division, Indal from Alcan, Madura Garments, the Chlor Alkali division of Kanoria Chemicals and Solaris Chemtech Industries. Mr. Birla has restructured the businesses to emerge as a global leader in the sectors in which the Group operates. Under his stewardship, Aditya Birla Group enjoys a position of leadership in all the major sectors in which it operates — from cement to chemicals, metals to textiles and fashion to financial services. Anchored by an extraordinary force of 187,000 employees belonging to 100 different nationalities, over the years Mr. Birla has built a highly successful meritocratic organization.

Under his leadership, in 2020, Aditya Birla Group was recognised as among the Forbes World's Best Employers 2020. In 2018, it was also recognized as 'The Best Employers to work for in India' by AON – Hewitt. The Group topped Nielsen's Corporate Image Monitor 2014-15 and emerged as the Number 1 corporate, the 'Best in Class', three times in a row.

Outside the Group, Mr. Birla has held several key positions on various regulatory and professional Boards. He was a Director on the Central Board of Directors of the Reserve Bank of India. He was Chairman of the Advisory Committee constituted by the Ministry of Corporate Affairs and also served on The Prime Minister of India's Advisory Council on Trade and Industry. As the Chairman of Securities and Exchange Board of India (SEBI) Committee on Corporate Governance, he authored the First Report on Corporate Governance that crafted foundational principles of corporate governance. Its recommendations were path breaking and became the basis of corporate governance norms. Furthermore, as the Convener of the Prime Minister's Task Force on Administrative and Legal Simplifications, the extensive recommendations made by him in his report, have been implemented in totality. Mr. Birla also served as the Chairman of SEBI's committee on Insider Trading which formulated corporate governance principles for Indian corporates. Mr. Birla is also the first Industrialist to be conferred Honorary membership by the Institute of Company Secretaries of India (ICSI). He is on the National Council of the Confederation of Indian Industry and the Apex Advisory Council of the Associated Chambers of Commerce and Industry of India.

Mr. Birla is deeply engaged with educational institutions. He is the Chancellor of the Birla Institute of Technology & Science (BITS) with campuses in Pilani, Goa, Hyderabad and Dubai. Mr. Birla is Chairman, Governing Council of BITSoM, a new age business school based in Mumbai.

On the global arena, Mr. Birla serves on the London Business School's Asia Pacific Advisory Board and is an Honorary Fellow of the London Business School. In 2019, Mr. Birla constituted a £15 million scholarship programme at the London Business School in memory of his grandfather, Mr. B.K. Birla, marking the largest ever endowed scholarship gift to a European Business School.

A firm practitioner of the trusteeship concept, Mr. Birla has institutionalised the concept of caring and giving at Aditya Birla Group. With his mandate, the Group is involved in meaningful welfare driven activities that distinctively impact the quality of life of weaker sections of society around the world.

Corporate Governance Report

Mrs. Rajashree Birla

Mrs. Rajashree Birla is an exemplar in the area of community initiatives and rural development. Mrs. Birla chairs the Aditya Birla Centre for Community Initiatives and Rural Development, the Group's apex body responsible for development projects. She oversees the social and welfare driven work across all the Group's major companies. The footprint of the Centre's work straddles over 7,000 villages, reaching out to 9 million people. The Group runs 24 hospitals. The Group reaches out to well over 100,000 students through its network of 56 formal schools and non-formal educational institutes. Of these, girls constitute 50%. Both its hospitals as well as schools are 'Not For Profit' institutions.

Mrs. Birla is the Chairperson of the FICCI – Aditya Birla CSR Centre for Excellence, Habitat for Humanity (India) and is on the Board of the Asia Pacific Committee as well as Habitat's Global Committee. She is the Chairperson of FICCI's first ever Expert Committee on CSR. She is on the Board of BAIF Development Research Foundation, Pune and also served on the Board of Directors of the CSR Committee of SBI Foundation and is a Trustee of the Gujarat Vidyapith. As a patron of arts and culture, she is the President of the "Sangit Kala Kendra", a Centre for performing arts, as well as the INT-ABCPA (Indian National Theatre-Aditya Birla Centre for Performing Arts).

In recognition of the exemplary work done by Mrs. Rajashree Birla, leading national and international organisations have showered accolades upon her. Among these the most outstanding one has been that of the Government of India which bestowed the "Padma Bhushan" Award in 2011 on Mrs. Rajashree Birla in the area of "Social Work". At the G20 EMPOWER Meet in Ahmedabad, the G20 EMPOWER Award for 'Lifetime Achievement' was conferred upon Mrs. Birla. Yet another prestigious award accorded to Mrs. Birla is BRICS 'Living Legend and Icon for Community Excellence and Lifetime Achievement Award', bestowed upon her by the erstwhile President, Mr. Ram Nath Kovind.

Furthermore, for Mrs. Birla's unrelenting endeavours towards polio eradication, she was honoured with the much coveted "Polio Eradication Champion" Award by the Government of India. Likewise, the "Global Golden Peacock Award for CSR" was conferred upon her by Dr. Ola Ullsten, the Former Prime Minister of Sweden in Portugal. Among other distinctive awards received by Mrs. Birla, feature the Economic Times' prestigious Award: Corporate Citizen of the Year, twice in a decade, first in 2003 and again in 2012; the All-India Management Association's "Corporate Citizen of the Year Award", the IOD's "Distinguished Fellowship Award" and the "FICCI FLO Golden Laurel Award".

Mr. Askaran Agarwala

Mr. Askaran Agarwala has been associated with the Adiya Birla Group, particularly with the Company, for well over 60 years. Mr. Agarwala joined the Company at its inception in 1959 and under his stewardship, the Company has become one of the most cost-efficient producers of Aluminium in the world. He was, therefore, referred to as **'The Aluminium Man of India'**.

Mr. Agarwala's contribution to Hindalco has been exemplary and his long, storied legacy is fabled amongst the inspirational leaders of not only Hindalco along but the Aditya Birla Group at large.

Mr. Agarwala is on the Board of a few companies of the Aditya Birla Group. He is involved in various projects under the aegis of "The Aditya Birla Centre for Community Initiatives and Rural Development" and many other strategic and sustainability initiatives of the Group.

Mr. Agarwala also serves on the Executive Committee of Federation of Indian Chambers of Commerce and Industries *[FICCI]*, Co-chair of FICCI – CSR Committee, Member Board of Governors of Birla Institute of Management Technology *[BIMTECH]*. He is also a Trustee in various Trusts of the Aditya Birla Group.

Mr. Agarwala holds a degree in Commerce and Law from Calcutta University and is a Fellow Member of the Institute of Chartered Accountants of India.

Corporate Governance Report

Mr. Satish Pai

Mr. Satish Pai is the Managing Director of Hindalco Industries since August 2016. At Hindalco, he has been the driving force behind Hindalco's journey from a metals commodity player to a value-added solutions provider in the aluminium and copper sectors. Under his leadership, Hindalco has evolved into a future-facing company with a Greener, Stronger, Smarter Purpose at its core, and a focus on digitalisation, innovation and high performance. Mr. Pai also oversees the operations of Hindalco subsidiary Novelis Inc.

Some key transitions under his stewardship include adoption of large-scale renewable energy and path breaking responsible mining initiatives through India's first Sustainable Mining Charter. He drove global-first circular economy solutions that utilise bauxite residue as an industry input rather than waste. Initiatives for carbon neutrality, water positivity, biodiversity and zero waste to landfill have contributed to Hindalco consistently ranking as the world's most sustainable aluminium company in the Dow Jones Sustainability Indices for four consecutive years, since 2020.

Mr. Pai received an Honorary Doctorate from Utkal University in 2024 for his extraordinary contributions to the metal industry, at the hands of Hon'ble President of India Ms. Droupadi Murmu. He was recognised with the 'BT-PwC India's Best CEO's 2024 - super large companies' award.

Mr. Pai holds a mechanical engineering degree from Indian Institute of Technology *[IIT]* Madras. In his personal capacity, he holds a patent in directional drilling. He was conferred the 'Distinguished Alumni Award' by IIT Madras in 2017.

Mr. Praveen Kumar Maheshwari

Rank Holder Chartered Accountant *[1984]*; MBA from IIM, Ahmedabad *[1983]* with over four decades of experience in various areas of Finance and General Management, including mergers & acquisitions, fundraising, consultancy, managing investor relations in India and global financial markets. Additionally, he has held several senior positions in manufacturing organizations during his career.

Presently the Chief Financial Officer *[Since December 2011]* and Whole-time Director *[Since May 2016]*.

He also heads the IT & digital initiatives for the Company *[viz. metals flagship of the Aditya Birla Group, industry leader in aluminium and copper]*. Mr. Maheshwari also serves as a Director on the Board of Novelis Inc., a US based wholly owned subsidiary of Hindalco, largest global aluminium recycler and flat rolled aluminium producer with operations across North America, South America, Europe & Asia.

His notable contribution includes his stint as CEO of Hindalco's Copper business *[2019-2021]* in addition to a major contribution during the acquisition of Aleris.

Prior to joining Hindalco, Mr. Maheshwari worked with Bharat Forge Ltd. *[one of the largest steel forging companies in the World]* as Director Finance and Group CFO for a period of 8 years and with Escorts Ltd. *[one of the largest manufacturing conglomerates based in North India]*. During his tenure with these companies, he successfully completed several transactions of mergers and acquisitions across North America, Europe and Asia including a Joint Venture with a State-owned Chinese Company as well as divestitures, corporate restructuring and fundraising.

Corporate Governance Report

Mr. Kailash Nath Bhandari

Mr. Bhandari has served as the Chairman cum Managing Director of the New India Assurance Company Ltd. and United India Insurance Company Ltd. He has served as a Director of General Insurance Corporation of India, Loss Prevention Association of India Ltd., and Ken India Insurance Co. Ltd. Mr. Bhandari received a Bachelor of Arts and an LLB degree from Jodhpur University.

He is an active philanthropist in the State of Rajasthan involved intricately in the fields of education and medi-care among others. His vast financial expertise, broad vision and business acumen have helped the Company in various decisions. He guides the Audit, Stakeholders' Relationship and Nomination & Remuneration Committee.

Mr. Yazdi Dandiwala

A Solicitor by profession, Mr. Dandiwala is a partner of Mulla & Mulla and Craigie Blunt & Caroe, Advocates & Solicitors. He has an extensive Corporate and Commercial law practice both in contentious and non-contentious matters.

Mr. Dandiwala's experience spans over nearly 5 decades in the fields of corporate law, Chemicals, Energy, Funds, Financial Services, Hotel, Infrastructure, IT, Manufacturing, Oil & Gas, Paper & Pulp, Real Estate, Telecommunication, Textiles, Aluminium, Iron Ore, Glass *[("cross-border merger of largest glass vial manufacturer in India with German manufacturer")]*, etc. His professional expertise has aided multiple MNCs navigate through their legal, investment and business aspects in India. He works with both large Indian and foreign firms on complex deals involving corporate restructuring and tax efficient/beneficial structures to be adopted.

His career highlights in the Aluminium industry include litigation on bauxite mining lease renewal, environmental objections, joint venture with foreign company for technology & know-how and compliances for iron ore mining, arbitrations on Machinery Manufacturing & Material Supply contracts.

Corporate Governance Report

Ms. Alka Bharucha

Ms. Bharucha co-founded Bharucha & Partners which, on inception, was ranked by RSG Consulting, London among the top fifteen firms in India. She began her career with Mulla & Mulla & Craigie Blunt & Caroe and joined Amarchand & Mangaldas as partner in 1992. She is a solicitor of the Bombay High Court and the High Court of England and Wales, and an Advocate on record at the Supreme Court of India. Ms. Bharucha has been ranked by Chambers Global, Legal 500 and Who's Who Legal amongst India's leading lawyers. Her core areas of expertise are Mergers and Acquisitions, Joint ventures, Private Equity, Banking and Finance.

Her general portfolio includes the establishment of Mutual Funds and providing regulatory advice to Foreign Institutional Investors, Foreign Venture Capital Investors, Merchant Bankers and other Financial Intermediaries. She has experience acting for Financial Services clients as well as those in the telecommunications, power and logistics sector and is also actively engaged in representing trans-national corporations for investments in Retail, Defence and Manufacturing Space.

She excels in the advising the Companies on major business decisions, exploring new business ventures and corporate restructuring nationally as well as internationally to clients in Commodity & Diversified Chemicals, Fertilizers and Agricultural Chemicals, Construction Materials, Paper Packaging, Aluminium, Diversified Metals & Mining and Steel among others.

Dr. Vikas Balia

Dr. Balia has an impressive background in law and finance, with a diverse range of expertise spanning corporate, commercial, constitutional, and civil matters. He is a designated senior lawyer known for his comprehensive services in various sectors including metal and mining, precious metals, and cement industries.

His career began at Mulla & Mulla & Craigie Blunt & Caroe. Dr. Balia's dual qualifications as a Chartered Accountant and Lawyer provide him with a unique perspective that is valuable in complex financial and legal matters.

His educational background includes a Master's degree in Mercantile Laws, which indicates his specialization in commercial law, and he has pursued doctoral research *[Ph.D]* focusing on Securitization Laws. This academic achievement underscores his commitment to deepening his understanding of legal frameworks relevant to financial transactions and securities.

Throughout his career, Dr. Balia has been actively involved in representing companies across various industries in both litigation and non-litigation matters. His expertise extends to handling transactions, conducting due diligences, and providing advisory services, demonstrating a well-rounded approach to legal practice that integrates strategic and practical insights.

Overall, Dr. Balia's qualifications, professional experience, and specialized knowledge make him a key figure in the legal field, particularly in corporate and commercial law, where his contributions are highly valued by clients and peers alike.

Corporate Governance Report

Mr. Sudhir Mital

Mr. Sudhir Mital, has had an illustrious career of over 40 years in public service, spanning across sectors from food safety and agriculture to developmental financing of Small and Medium Enterprises to corporate governance and market regulator, in the State of Punjab as well at the Centre. As a former member of the Indian Administrative Service *[IAS]* Mr Mital has been very largely involved at different levels in the realm of Policy making, project Implementation and delivery of public goods and services to the citizens.

He served as Member and Chairman of the Competition Commission of India *[CCI]*, India's fair trade market regulator, ensuring accelerated & inclusive growth, and consumer welfare through fair, innovative and healthy competition in the economic activities of the Country.

He was Special Secretary to the Ministry of Corporate Affairs, acting as a key functionary engaged in the evolution of Companies Bill, 2013. Prior to joining the Commission, he has held several other key positions at the Centre, such as Secretary to Government of India in the Department of Chemicals and Fertilizers as well as Joint Secretary, Ministry of Environment and Forests where he was dealing with Bilateral, Regional and Multilateral Cooperation and was Chief Negotiator on "Sustainable Development" in International Forums. As Secretary Fertilizers he was responsible for planning, promotion and development of fertiliser industry in the country, their timely and adequate distribution for the agriculture sector and management of financial assistance by way of subsidies/ concessions for domestic and imported fertilisers, including potash and other chemical fertilisers.

Some of his other appointments include Secretary, Power and Chairman of Punjab State Electricity Board, where he initiated several power sector reforms in the State of Punjab in line with the Electricity Act 2003, Managing Director, Punjab Financial Corporation dealing with providing Finance to medium and small industry; Commissioner Commercial taxes, State Excise and Entertainment, Senior Regional Manager, Food Corporation of India; District Magistrate Jalandhar etc. As a field level officer in earlier part of the career, Mr Mital has had substantial experience in administration of land revenue and related judicial matters, exercise of magisterial powers for maintenance of Law and Order and coordinating implementation of multitude of diverse Government programs at the grass root level to ensure inclusive growth and development in the area.

He was also the Government's Special Emissary to the Delhi Commonwealth Games 2010 as its Special Director General for overseeing the entire Games Village operations besides other areas. With keen interest in the field of Sports, both on and off, he at present is also the President of The Gymnastics Federation of India *[GFI]* affiliated to the International Gymnastics Federation *[FIG]* and the Indian Olympic Association *[IOA]*. Mr. Mital is also on the Board of Governors of Vivek High School, Chandigarh, a very prestigious day school of North India.

Mr. Arun Adhikari

Arun Adhikari graduated with a Bachelor of Technology in Chemical Engineering from the Indian Institute of Technology, Kanpur in 1975. He went on to complete his Post Graduate Diploma in Management from the Indian Institute of Management, Calcutta. He is former Managing Director of Hindustan Unilever Limited and former Senior Advisor of McKinsey & Company in India.

He has held several senior positions in Unilever including sales, marketing, consumer research and general management both in India and across the globe having worked in London, Tokyo and Singapore. He has been involved in external relationships with the Government and media, investor relations, risk management, and corporate governance. He has advised McKinsey clients across a wide range of sectors both consumer and industrial.

From 2000 to 2006, he has served as a member of the executive and governing bodies of several industrial, trade and professional associations in India including the Market Research Society of India, Indian Soaps and Toiletries Manufacturers Association, Indian Society of Advertisers and the Advertising Standards Council of India.

Since 2014 Mr. Adhikari has been an Independent Director on several Boards and a member on the Audit, Nomination & Remuneration and Risk Committees thereto.

Corporate Governance Report

Mr. Sushil Agarwal

Mr. Sushil Agarwal is currently the Group Chief Financial Officer and Director, Aditya Birla Management Corporation Private Limited, the Group's apex management body. He serves as a Director on the Board of several Group companies including Hindalco Industries Limited, Grasim Industries Limited, Vodafone Idea Limited, Aditya Birla Capital Limited and Novel Jewels Limited. Mr. Agarwal is a member of the Business Review Council of the Group. In 2021, he was also appointed as a nominee Director at Zand Bank PJSC – a Dubai based first of its kind Digital Bank.

Mr. Agarwal has been with the Group for over 35 years and has the unique distinction of working closely with the former Chairman Late Mr. Aditya Vikram Birla and current Chairman Mr. Kumar Mangalam Birla. He has led various strategic initiatives of the Group, including M&A and restructurings. A strong advocate of corporate governance and trusteeship, he is widely acknowledged for his financial acumen and analytical skills.

In 2018, he was awarded as "India's Greatest CFO" at the Asia One India's Greatest Brands and Leaders Awards and as the "Business Leader Corporate CFO" at the 11th ICAI Awards. He has also been recognised as one of the 'Top 10 Global CFO's – 2023' by CEO Insights Magazine.

He was honoured with the 'Exceptional Contributor Award' in 2000 and 'Outstanding Leadership Award' in 2014 by the Chairman of Aditya Birla Group.

Mr. Sushil Agarwal is a qualified Chartered Accountant and holds a Master's degree in commerce.

Annexure A

CODE OF CONDUCT DECLARATION

As provided under the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Board of Directors and the Senior Management Personnel have affirmed compliance with the Code of Conduct for the year ended 31st March, 2024.

Satish Pai
Managing Director
[DIN:06646758]

Place: Mumbai
Date: 15th July, 2024

Annexure B

CEO – CFO CERTIFICATION

The Board of Directors,
Hindalco Industries Limited

1. We have reviewed the Audited Financial Statements and the Cash Flow statement of Hindalco Industries Limited ["the Company"] for the financial year ended on 31st March, 2024 and to the best of our knowledge and belief:
   I. These statements do not contain any materially untrue statement or omit any material fact or contain statement that might be misleading and
   II. These statements together present a true and fair view of the Company's affairs and are in compliance with the existing accounting standards, applicable laws and regulations.
2. There are, to the best of our knowledge and belief, no transactions entered into by the Company during the financial year ended on 31st March, 2024 which are fraudulent, illegal or violative of the Code of Conduct of the Company.
3. We accept responsibility for establishing and maintaining internal controls for financial reporting and we have evaluated the effectiveness of internal control systems of the Company pertaining to financial reporting. We have disclosed to the Auditors and the Audit Committee, deficiencies in the design or operation of internal controls, if any, of which we are aware and the steps we have taken or proposed to be taken to rectify the deficiencies.
4. We have indicated to the Auditors and the Audit Committee:
   I. Significant changes in the Company's internal control over financial reporting, if any, during the financial year ended on 31st March, 2024;
   II. Significant changes in accounting policies, if any, during the financial year ended on 31st March, 2024 have been disclosed in the notes to the Financial Statements; and
   III. Significant fraud of which we have become aware and involvement therein, if any, of the management or other employees having a significant role in the Company's internal control system over financial reporting.

Place: Mumbai
Date: 15th July, 2024

Satish Pai
Managing Director
DIN: 06646758

Praveen Kumar Maheshwari
Chief Financial Officer
DIN: 00174361

Corporate Governance Report

Annexure - C

CERTIFICATE FROM PRACTICING COMPANY SECRETARY W.R.T. CONFIRMATION OF DIRECTOR'S NON-DISQUALIFICATION

To,
The Members,
HINDALCO INDUSTRIES LIMITED
21st Floor, One Unity Center,
Senapati Bapat Marg, Prabhadevi,
Mumbai – 400013.

We have examined the relevant registers, records, forms, returns and disclosures received from the Directors of Hindalco Industries Limited having CIN L27020MH1958PLC011238 and having registered office at 21st Floor, One Unity Center, Senapati Bapat Marg, Prabhadevi, Mumbai 400013 *("the Company")*, produced before us by the Company for the purpose of issuing this Certificate, in accordance with Regulation 34(3) read with Schedule V Para-C Sub clause 10(i) of the Securities Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015.

In our opinion and to the best of my/our information and according to the verifications (including Directors Identification Number (DIN) status at the portal www.mca.gov.in) as considered necessary and explanations furnished to me / us by the Company & its officers, We hereby certify that none of the Directors on the Board of the Company as stated below for the Financial Year ending on March 31, 2014 have been debarred or disqualified from being appointed or continuing as Directors of companies by the Securities and Exchange Board of India, Ministry of Corporate Affairs, or any such other Statutory Authority.

Sr. No.	Name of the Director	DIN	Date of appointment
1.	Ms. Alka Marezban Bharucha	00114067	11-07-2018
2.	Mr. Askaran Agarwala	00023684	11-09-1998
3.	Mr. Kailash Nath Bhandari	00026078	30-01-2006*
4.	Mr. Kumar Mangalam Birla	00012813	16-11-1992
5.	Mr. Praveen Kumar Maheshwari	00174361	28-05-2016
6.	Mrs. Rajashree Birla	00022995	15-03-1996
7.	Mr. Satish Pai	06646758	13-08-2013
8.	Mr. Sudhir Mittal	08314675	11-11-2019
9.	Dr. Vikas Balia	00424524	19-07-2019
10.	Mr. Yazdi Dandiwala	01055000	14-08-2015

*Mr. Kailash Nath Bhandari was appointed w.e.f. 30-01-2006. In line with the FAQs issued by Stock Exchanges dated April 10, 2023, the date of appointment for Mr. Bhandari was mentioned as 14-08-2014 under filings for Regulation 27(2) of the Listing Regulations.

Mr. Anant Maheshwari (DIN: 02963839) resigned as the Director / resigned from his directorship w.e.f. October 18, 2023.

Ensuring the eligibility for the appointment/continuity of every Director on the Board is the responsibility of the management of the Company. Our responsibility is to express an opinion on these based on our verification. This certificate is neither an assurance as to the future viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For **DILIP BHARADIYA & ASSOCIATES**

DILIP BHARADIYA
Partner
FCS No. 7956 CP No. 6740
UDIN: F007956F000440993

Place: Mumbai
Date: May 24, 2024

Financial Highlights - Consolidated

(₹ Crore)

	2023-24 @	2023-24 @	2022-23 @	2021-22 @	2020-21 @	2019-20 @	2018-19 @	2017-18 @	2016-17 @	2015-16 @	2014-15
PROFITABILITY	US$ in Mn*										
Sales and Operating Revenues	26,089	2,15,962	2,23,202	1,95,059	1,31,985	1,18,144	1,30,542	1,15,820	1,02,631	1,01,202	1,06,696
Less: Cost of Sales	23,162	1,91,730	2,00,328	1,66,557	1,14,311	1,03,794	1,15,042	1,01,899	90,183	92,387	97,751
Operating Profit	2,927	24,232	22,874	28,502	17,674	14,350	15,500	13,921	12,448	8,815	8,944
Other Income	181	1,496	1,257	1,136	1,222	1,186	1,127	1,105	1,111	1,189	1,105
Less: Depreciation, Amortization and Impairment	952	7,881	7,294	6,884	6,766	5,135	4,766	4,607	4,469	4,507	3,591
Less: Interest and Finance Charges	466	3,858	3,646	3,768	3,738	4,197	3,778	3,911	5,742	5,134	4,178
Profit before Share in Equity Accounted Investments, Exceptional Items and Tax	1,690	13,989	13,191	18,986	8,392	6,204	8,083	6,508	3,348	362	2,280
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)	-	2	9	6	5	4	-	(125)	(25)	172	175
Profit before Tax and Exceptional Items	1,690	13,991	13,200	18,992	8,397	6,208	8,083	6,383	3,323	534	2,455
Exceptional Income/ (Expenses) (Net)	3	21	41	582	(492)	(284)	-	1,774	(8)	(577)	(1,940)
Profit/ (Loss) before Tax from Continuing Operations	1,693	14,012	13,241	19,574	7,905	5,924	8,083	8,157	3,315	(43)	515
Less: Tax Expenses	466	3,857	3,144	5,373	2,723	2,157	2,588	2,074	1,433	498	256
Profit/ (Loss) from Continuing Operations	1,227	10,155	10,097	14,201	5,182	3,767	5,495	6,083	1,882	(541)	258
Profit/ (Loss) from Discontinued Operations (Net of Tax)	-	-	-	(471)	(1,699)	-	-	-	-	(161)	-
Profit/ (Loss) before Non-Controlling Interest	1,227	10,155	10,097	13,730	3,483	3,767	5,495	6,083	1,882	(702)	258
Less: Non-Controlling Interest in Profit/ (Loss)	-	-	-	-	-	-	(1)	-	(18)	(451)	(596)
Net Profit/ (Loss) for the Period	1,227	10,155	10,097	13,730	3,483	3,767	5,496	6,083	1,900	(933)	757
Business Reconstruction Reserve (BRR) #											
Expenses adjusted against BRR (Net of Tax)	-	-	-	-	-	-	-	-	-	682	97
Profit/ (Loss) for the Period had the expenses not adjusted against BRR	1,227	10,155	10,097	13,730	3,483	3,767	5,496	6,083	1,900	(251)	854

(₹ Crore)

	2023-24 @	2023-24 @	2022-23 @	2021-22 @	2020-21 @	2019-20 @	2018-19 @	2017-18 @	2016-17 @	2015-16 @	2014-15
FINANCIAL POSITION	US$ in Mn*										
Gross Fixed Assets (excluding CWIP)	22,849	1,90,491	1,82,450	1,69,911	1,57,052	1,40,334	1,30,142	1,25,094	1,21,186	1,23,522	1,01,940
Capital Work-in-Progress (CWIP) **	1,783	14,867	7,700	4,945	10,202	7,721	4,098	2,063	1,814	4,214	14,111
Less: Accumulated Depreciation, Amortization and Impairment	9,437	78,682	71,824	63,037	56,783	51,139	44,283	40,006	36,499	37,849	29,981
Net Fixed Assets	15,195	1,26,676	1,18,326	1,11,819	1,10,471	96,916	89,957	87,151	86,501	89,887	86,070
Investments	1,852	15,444	14,116	14,119	17,133	9,411	9,012	10,781	15,157	12,438	12,346
Other Non-Current Assets / (Liabilities) (Net)	(995)	(8,291)	(9,188)	(11,856)	(11,794)	(12,407)	(9,581)	(8,497)	(6,737)	(8,859)	(7,235)
Net Current Assets	3,218	26,829	29,898	27,354	16,711	31,664	20,538	17,499	14,961	15,074	16,571
Capital Employed	19,270	1,60,658	1,53,152	1,41,436	1,32,521	1,25,584	1,09,926	1,06,934	1,09,882	1,08,540	1,07,752
Less: Loan Funds	6,537	54,501	58,335	63,234	65,978	67,257	52,416	52,074	63,817	67,552	68,467
Less: Non-Controlling Interest	1	11	11	11	10	10	9	9	6	381	956
Net Worth	12,732	1,06,146	94,806	78,191	66,533	58,317	57,501	54,851	46,059	40,607	38,329
Net Worth represented by :											
Equity Share Capital	27	222	222	222	222	222	222	223	223	205	207
Other Equity:											
Equity Component of Compound Financial Instruments	-	4	4	4	4	4	4	4	4	3	-
Reserves and Surplus	11,154	92,991	83,692	73,860	59,717	55,577	52,599	47,644	41,770	36,443	38,122
Other Comprehensive Income	1,551	12,929	10,888	4,105	6,590	2,514	4,676	6,980	4,062	3,956	-
	12,732	1,06,146	94,806	78,191	66,533	58,317	57,501	54,851	46,059	40,607	38,329

RATIOS AND STATISTICS

	Unit	2023-24 @	2022-23 @	2021-22 @	2020-21 @	2019-20 @	2018-19 @	2017-18 @	2016-17 @	2015-16 @	2014-15
Operating Margin	%	11.22	10.25	14.61	13.39	12.15	11.87	12.02	12.13	8.71	8.38
Net Margin	%	4.70	4.52	7.04	2.64	3.19	4.21	5.25	1.85	(0.25)	0.80
Gross Interest Cover ^	Times	6.16	6.43	7.49	4.73	3.57	4.37	3.86	2.36	1.91	1.95
Net Interest Cover^^	Times	6.67	6.62	7.87	5.06	3.70	4.40	3.84	2.36	1.95	2.41
ROCE^^^	%	11.37	11.43	16.61	9.40	8.83	10.94	9.61	8.32	5.08	5.97
ROE	%	10.11	11.67	18.97	5.58	6.51	9.78	12.06	4.39	(0.64)	2.16
Basic EPS	₹	45.68	45.42	61.73	15.66	16.94	24.67	27.30	9.22	(4.55)	4.14
Diluted EPS	₹	45.62	45.36	61.65	15.65	16.93	24.66	27.29	9.22	(4.55)	4.13
Cash EPS ^^^^	₹	81.14	78.24	92.69	46.07	40.03	46.07	47.98	30.91	20.78	21.53
Capital Expenditure (Cash outflow)	₹ Crore	15,943	9,842	5,426	5,565	6,791	6,005	3,001	2,938	4,245	5,978
Debt Equity Ratio	Times	0.53	0.64	0.82	0.99	1.15	0.91	0.95	1.39	1.66	1.79
Book value per Share	₹	472.24	421.79	347.87	296.07	259.56	256.07	244.33	205.32	196.64	185.61

* Balance Sheet items are translated at closing exchange rate and Profit and Loss items are translated at average exchange rate.

** Including Intangible assets under development

Financial restructuring scheme formulated by the Company under the provisions of the Companies Act, approved by the Bombay High Court, to deal with various costs associated with its organic and inorganic growth plan.

@ Figures for FY 2023-24, FY 2022-23, FY 2021-22, FY 2020-21, FY 2019-20, FY 2018-19, FY 2017-18, FY 2016-17 and FY 2015-16 are as per Ind AS compliant financial statements. Previous periods figures are as per Previous GAAP financial statements.

^ Gross interest coverage ratio is calculated as Operating Profit plus Other Income divided by Interest and Finance Charges plus Finance costs transferred to Capital Work-in-Progress/ Intangible Assets under development.

^^ Net interest coverage ratio is calculated as Operating Profit plus Other Income divided by Interest and Finance Charges.

^^^ Earnings before Interest and Taxes/ Average Capital Employed.

^^^^ Cash EPS is calculated as Profit/ (Loss) for the year plus Depreciation, Amortization and Impairment divided by Weighted average numbers of equity shares

Financial Highlights - Standalone

(₹ Crore)

	2023-24 @	2023-24 @	2022-23 @	2021-22 @	2020-21 @	2019-20 @	2018-19 @	2017-18 @	2016-17 @	2015-16 @	2014-15
PROFITABILITY	US$ in Mn*										
Sales and Operating Revenues	9,287	83,009	76,878	67,653	42,701	40,242	45,749	43,446	39,383	36,713	36,869
Less: Cost of Sales	8,384	75,509	69,403	56,360	38,467	36,578	41,503	38,322	34,569	33,367	33,453
Operating Profit	903	7,500	7,475	11,293	4,234	3,664	4,246	5,124	4,814	3,346	3,417
Other Income	71	703	586	535	650	739	940	948	1,005	979	882
Less: Depreciation, Amortization and Impairment	233	1,961	1,927	1,847	1,848	1,708	1,693	1,617	1,428	1,282	837
Less: Interest and Finance Charges	157	1,268	1,300	1,417	1,469	1,679	1,683	1,901	2,323	2,390	1,637
Profit before Exceptional Items and Tax	584	4,974	4,834	8,564	1,567	1,016	1,810	2,554	2,068	653	1,825
Exceptional Income/ (Expenses) (Net)	5	21	41	(107)	7	(64)	-	(325)	85	-	(578)
Profit/ (Loss) before Tax from Continuing Operations	589	4,995	4,875	8,457	1,574	952	1,810	2,229	2,153	653	1,247
Less: Tax Expenses	187	1,298	1,549	2,950	581	332	605	793	596	99	322
Profit/ (Loss) from Continuing Operations	402	3,697	3,326	5,507	993	620	1,205	1,436	1,557	554	925
Profit/ (Loss) from Discontinued Operations (Net of Tax)	-	-	-	-	-	-	-	-	-	(2)	-
Profit/ (Loss) for the Period	402	3,697	3,326	5,507	993	620	1,205	1,436	1,557	552	925
Business Reconstruction Reserve (BRR) #											
Expenses adjusted against BRR (Net of Tax)	-	-	-	-	-	-	-	-	-	682	97
Profit/ (Loss) for the Period had the expenses not adjusted against BRR	402	3,697	3,326	5,507	993	620	1,205	1,436	1,557	(130)	828
FINANCIAL POSITION											
Gross Fixed Assets (excluding CWIP)	6,442	56,421	53,703	52,507	51,080	50,296	48,898	48,264	46,742	43,316	35,434
Capital Work-in-Progress (CWIP) **	358	4,040	2,987	1,581	1,709	1,282	982	737	712	3,079	10,744
Less: Accumulated Depreciation, Amortization and Impairment	2,591	23,211	21,600	20,207	18,690	16,928	15,376	13,900	12,358	11,063	9,374
Net Fixed Assets	4,209	37,250	35,090	33,881	34,099	34,650	34,504	35,101	35,096	35,332	36,804
Investments	3,570	29,735	29,766	29,655	31,731	24,639	25,495	27,025	29,332	27,311	21,251
Other Non-Current Assets / (Liabilities) (Net)	(447)	(4,806)	(3,725)	(3,473)	(2,365)	(2,223)	(1,565)	(708)	516	(1,038)	(1,193)
Net Current Assets	1,159	9,168	9,666	13,444	6,528	11,478	9,658	8,330	9,539	9,230	9,400
Capital Employed	8,492	71,347	70,797	73,507	69,993	68,544	68,092	69,748	74,483	70,835	66,262
Less: Loan Funds	1,476	7,640	12,308	19,079	19,929	23,050	19,534	20,297	27,150	28,676	29,007
Net Worth	7,016	63,707	58,489	54,428	50,064	45,494	48,558	49,451	47,333	42,159	37,255
Net Worth represented by :											
Equity Share Capital	27	222	222	222	222	222	222	223	223	205	207
Other Equity:											
Share Warrants	-	-	-	-	-	-	-	-	-	-	-
Reserves and Surplus	6,181	54,519	51,531	49,178	44,310	43,482	43,285	42,497	41,235	36,568	37,049
Other Comprehensive Income	808	8,966	6,736	5,028	5,532	1,790	5,051	6,731	5,875	5,386	-

(₹ Crore)

	2023-24 @	2023-24 @	2022-23 @	2021-22 @	2020-21 @	2019-20 @	2018-19 @	2017-18 @	2016-17 @	2015-16 @	2014-15
PROFITABILITY	US$ in Mn*										
	7,016	63,707	58,489	54,428	50,064	45,494	48,558	49,451	47,333	42,159	37,255

RATIOS AND STATISTICS

	Unit	2023-24 @	2022-23 @	2021-22 @	2020-21 @	2019-20 @	2018-19 @	2017-18 @	2016-17 @	2015-16 @	2014-15
Operating Margin	%	9.04	9.72	16.69	9.92	9.11	9.28	11.79	12.22	9.11	9.27
Net Margin	%	4.45	4.33	8.14	2.33	1.54	2.63	3.31	3.95	1.50	2.51
Gross Interest Cover ^	Times	6.00	5.98	8.20	3.29	2.62	3.08	3.18	1.73	1.81	1.75
Net Interest Cover	Times	6.47	6.20	8.35	3.32	2.62	3.08	3.19	2.51	1.81	2.63
ROCE	%	8.78	8.50	13.91	4.38	3.94	5.07	6.18	6.04	4.44	5.30
ROE	%	6.05	5.89	10.54	2.08	1.32	2.46	2.97	3.48	1.39	2.50
Basic EPS	₹	16.64	14.96	24.76	4.46	2.79	5.41	6.45	7.56	(0.64)	4.48
Diluted EPS	₹	16.62	14.94	24.73	4.46	2.79	5.41	6.45	7.55	(0.64)	4.48
Cash EPS ^^	₹	25.50	23.66	33.07	12.77	10.47	13.01	13.70	14.49	8.95	8.53
Dividend per Share ##	₹	3.50	3.00	4.00	3.00	1.00	1.20	1.20	1.10	1.00	1.00
Capital Expenditure (Cash outflow)	₹ Crore	3,776	2,726	1,506	1,137	1,395	1,263	1,178	1,041	1,399	2,073
Debt Equity Ratio	Times	0.13	0.22	0.36	0.40	0.51	0.40	0.41	0.57	0.68	0.78
Book value per Share	₹	283.44	260.23	242.16	222.84	202.49	216.25	220.28	211.00	204.16	180.41
Market Capitalisation $	₹ Crore	125,900	91,196	127,976	73,433	21,502	46,145	48,166	43,756	18,162	26,638
Number of Equity Shareholders	Nos.	6,41,541	676,110	503,729	348,471	332,014	304,345	299,521	319,783	392,888	338,655
Number of Employees	Nos.	21,761	21,440	21,151	20,971	22,477	22,865	23,555	23,679	24,118	21,976
Average Cash LME (Aluminium)	US$	2,202	2,490	2,769	1,802	1,749	2,035	2,046	1,688	1,592	1,888
Average Cash LME (Copper)	US$	8,353	8,551	9,691	6,879	5,855	6,337	6,451	5,152	4,852	6,556

* Balance Sheet items are translated at closing exchange rate and Profit and Loss items are translated at average exchange rate.

** Including Intangible assets under development

Financial restructuring scheme formulated by the Company under the provisions of the Companies Act, approved by the Bombay High Court, to deal with various costs associated with its organic and inorganic growth plan.

Proposed/Interim Dividend for the Period

@ Figures for FY 2023-24, FY 2022-23, FY 2021 -22, FY 2020-21, FY 2019-20, FY 2018-19, FY 2017-18, FY 2016-17 and FY 2015-16 are as per Ind AS compliant financial statements. Previous periods figures are as per Previous GAAP financial statements.

$ including Treasury shares held by the Company

^ Gross interest coverage ratio is calculated as Operating Profi t plus Other Income ivided by Interest and Finance Charges plus Finance costs transferred to Capital Work-in-Progress/ Intangible Assets under development.

^^ Cash EPS is calculated as Profit/ (Loss) for the year plus Depreciation, Amortization and Impairment divided by Weighted average numbers of equity shares.

Consolidated Financial Statements Index

Particulars	Note No.	Page No.
Independent Auditor's Report		**402**
Consolidated Balance Sheet		**420**
Consolidated Statement of Profit and Loss		**422**
Consolidated Statement of Changes in Equity		**424**
Consolidated Statement of Cash Flows		**426**
Consolidated Notes to the Financial Statements		**428**
Group Information	1	428
Basis of Preparation and Accounting Policy Information	2	437
Property, Plant and Equipment	3A	440
Capital Work-in-Progress	3B	443
Right of Use Assets	3C	445
Lease Liabilities	3D	447
Investment Properties	3E	448
Other Intangible Assets and Intangible Assets under Development	3F	449
Depreciation and Amortization Expenses	3G	452
Impairment Loss/ (Reversal) on Non- Current Assets (Net)	3H	453
Goodwill	4	455
Financial Assets	5	458
Other Investments, Non-Current	5A	461
Other Investments, Current	5B	462
Loans	5C	463
Derivatives and Hedge Accounting	5D	464
Other Financial Assets	5E	474
Trade Receivables	5F	474
Cash and Cash Equivalents	5G	476
Bank Balances other than Cash and Cash Equivalents	5H	476
Income Taxes	6	477
Tax Expenses	6A	478
Income Tax Assets and Liabilities with Tax Authorities	6B	480
Deferred tax Assets and Liabilities	6C	480
Other Non-Current and Current Assets	7	484
Inventories	8A	486
Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade	8B	487
Non-Current Assets or Disposal group classified as Held for Sale	9	487
Equity Share Capital	10	488
Other Equity	11	492
Financial Liabilities	12	495
Borrowings, Non-Current	12A	496

Particulars	Note No.	Page No.
Borrowings, Current	12B	500
Other Financial Liabilities	12C	503
Supplier's Credit	12D	503
Trade Payables	12E	504
Provisions	13	505
Employee Benefits Expense	14A	508
Employee Benefit Obligations	14B	508
Contract Liabilities	15	531
Other Non-Current and Current Liabilities	16	532
Revenue from Operations	17	533
Other Income	18	535
Cost of Materials Consumed	19	536
Purchases of Stock-in-Trade	20	536
Power and Fuel	21	536
Finance Cost	22	537
Impairment Loss/ (Reversal) on Financial Assets (Net)	23	537
Other Expenses	24	538
Exceptional Income/ (Expenses) (Net)	25	539
Other Comprehensive Income/ (Loss)	26	539
Earnings per Share (EPS)	27	540
Government Grants	28	540
Segment Information	29	542
Related Party Disclosures	30	547
Contingent Liabilities and Commitments	31	551
Capital Management	32	552
Fair Value Measurement of Financial Instruments	33	553
Financial Risk Management	34	558
Offsetting Financial Liabilities and Financial Assets	35	566
Relationship with struck off-companies	36	567
Additonal Regulatory Information	37	568
Subsequent events	38	568
Reclassification of previous year data	39	569

Independent Auditor's Report

on the Consolidated Financial Statements

To the Members of Hindalco Industries Limited

Report on the Audit of the Consolidated Financial Statements

Opinion

1. We have audited the accompanying consolidated financial statements of Hindalco Industries Limited (hereinafter referred to as the "Holding Company") which includes the financial statements/financial information in respect of joint operations, trusts and subsidiaries (Holding Company, its joint operations, trusts and subsidiaries together referred to as "the Group"), its joint ventures and associate companies (refer Note 1 to the accompanying consolidated financial statements), which comprise the Consolidated Balance Sheet as at March 31, 2024, and the Consolidated Statement of Profit and Loss (including Other Comprehensive Income), the Consolidated Statement of Changes in Equity and the Consolidated Statement of Cash Flows for the year then ended, and notes to the consolidated financial statements, including material accounting policy information and other explanatory information (hereinafter referred to as "the consolidated financial statements").

2. In our opinion and to the best of our information and according to the explanations given to us and based on the consideration of reports of other auditors on the consolidated audited financial statements of one subsidiary and separate audited financial statements of the joint operations, trusts, subsidiaries, joint venture and associate companies and based on the consideration of the separate unaudited financial information of the subsidiaries, joint venture and associate company, the aforesaid consolidated financial statements give the information required by the Companies Act, 2013 ("the Act") in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the consolidated state of affairs of the Group, its joint ventures and associate companies as at March 31, 2024, and of the consolidated total comprehensive income (comprising of profit and other comprehensive income), consolidated changes in equity and its consolidated cash flows for the year then ended.

Basis for Opinion

3. We conducted our audit in accordance with the Standards on Auditing (SAs) specified under Section 143(10) of the Act. Our responsibilities under those Standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group, its joint ventures and associate companies in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in India in terms of the Code of Ethics issued by the Institute of Chartered Accountants of India and the relevant provisions of the Act, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors in terms of their reports referred to in sub-paragraphs 15 and 16 of the Other Matters section below, other than the unaudited financial information as certified by the management and referred to in sub-paragraph 17 of the Other Matters section below, is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

4. Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Provisions recognised and contingencies disclosed with regards to certain legal and tax matters including uncertain tax positions Refer Notes 6, 7, 13 and 31 to the consolidated financial statements. The Holding Company operates in a complex tax jurisdiction with certain tax exemption/ deduction that may be subject to challenge and audit by the tax authorities. Further, there are open tax matters under litigation with the tax authorities. As at March 31, 2024, the Holding Company has, recognised provisions and disclosed contingent liabilities towards various legal and tax matters, including environmental, mining, local and state levies, income tax holidays, availing of input tax credits and such other matters. This is a key audit matter, as evaluation of these matters requires management judgement and estimation, related legal advice including those leading to interpretation of laws and regulations and application of relevant judicial precedents to determine the probability of the outflow of economic resources due to associated uncertainty related to the outcome of these tax and litigation matters for recognising provisions, disclosing contingent liabilities and making related disclosures in the consolidated financial statements.	Our audit procedures relating to provisions recognised and contingencies disclosed with regard to certain legal and tax matters included the following: • Understanding and evaluating the design and testing the operating effectiveness of controls over the recognition, measurement, presentation and disclosures made in the consolidated financial statements in respect of these matters; • Obtaining details of legal and tax matters, inspecting the supporting documents to evaluate management's assessment of probability of outcome and the magnitude of potential loss as well as testing related to provisions and disclosures in the consolidated financial statements through inquiries with the management and legal counsel; • Assessing on test basis on the underlying calculation supporting the contingent liabilities and other litigation disclosures in the consolidated financial statements; • Reviewing orders and other communication from tax and regulatory authorities and management responses thereto; • Assessing the management expert's legal advice and opinion, as applicable, obtained by the Company's management to corroborate management assessment and evaluating competence and capabilities of the experts; and • Using auditor's specialist for technical assistance in evaluating certain significant and judgemental complex direct and indirect tax litigation and positions in tax returns and their possible outcome. Based on the above procedures performed, we did not identify any material exceptions in the provisions recognised and contingent liabilities disclosed in the consolidated financial statements with regard to such legal and tax matters.

Independent Auditor's Report

on the Consolidated Financial Statements

5. The following Key Audit Matters were included in in the Memorandum of Work Performed issued by other auditor whose audit report dated May 22, 2024, contained an unmodified audit opinion on the consolidated financial information of Novelis Inc. ("Novelis"), a subsidiary of the Holding Company which is reproduced by us as under:

Key audit matter	How our audit addressed the key audit matter
Goodwill impairment assessment – North America and Europe cash generating units The Company's consolidated goodwill balance was ₹ 26,037 crores as of March 31, 2024, and the goodwill related to the North America and Europe cash generating units was ₹ 12,164 crores and ₹ 8,957 crores, respectively. Management conducts an impairment test as of the last day of March of each year, or more frequently if events or circumstances indicate that the carrying value of goodwill may be impaired. As disclosed by management, potential impairment is identified by comparing the recoverable value of each cash generating unit to its carrying value. The Company estimates the recoverable value based on fair value less costs to sell approach. If the carrying value exceeds the recoverable value, management records an impairment charge in an amount equal to that excess. Fair value for each cash generating unit as of the testing date is based on a weighted average of the value indication from the income and market approaches. The income approach is dependent on a number of significant management assumptions including sales volumes, conversion premiums, and discount rate. The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the North America and Europe cash generating units is a Key Audit Matter are (i) the significant judgment by management when developing the fair value estimate of the cash generating units; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to sales volumes, conversion premiums, and the discount rate for the income approach; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge. Refer to Notes 14 and 42 in the Consolidated Financial Statements of Novelis.*	Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the FFC Consolidated Financial Statements. Our procedures included, among others: (i) testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of the North America and Europe cash generating units using the income approach; (ii) testing management's process for developing the fair value estimate of the North America and Europe cash generating units using the income approach; (iii) evaluating the appropriateness of the income approach used by management; (iv) testing the completeness and accuracy of underlying data used in the income approach; (iv) evaluating the reasonableness of the significant assumptions used by management related to sales volumes, conversion premiums, and the discount rate. (v) Evaluating management's assumptions related to sales volumes and conversion premiums involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the North America and Europe cash generating units; (ii) the consistency with external market and industry data; and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. (vi) Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the income approach and evaluating the reasonableness of the discount rate assumption. As a result of our procedures performed, no misstatements were noted.

* These notes are included in Note 4 of the consolidated financial statements.

Other Information

6. The Holding Company's Board of Directors is responsible for the other information. The other information comprises the information included in the integrated annual report but does not include the consolidated financial statements and our and other auditor's report thereon. The integrated annual report is expected to be made available to us after the date of this auditor's report.

   Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

   In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and in doing so consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

   When we read the integrated annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate action as applicable under the relevant laws and regulations.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

7. The Holding Company's Board of Directors is responsible for the preparation and presentation of these consolidated financial statements in term of the requirements of the Act that give a true and fair view of the consolidated financial position, consolidated financial performance and consolidated cash flows, and changes in equity of the Group including its joint ventures and associate companies in accordance with the accounting principles generally accepted in India, including the Accounting Standards specified under Section 133 of the Act. The respective Board of Directors of the companies / Trustees of the trusts included in the Group and and the respective Board of Directors of its joint ventures and associate companies are responsible for maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Group and of its joint ventures and associate companies and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and the design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error, which have been used for the purpose of preparation of the consolidated financial statements by the Directors of the Holding Company, as aforesaid.

8. In preparing the consolidated financial statements, the respective Board of Directors of the companies / Trustees of the trusts included in the Group and the respective Board of Directors of its joint ventures and associate companies are responsible for assessing the ability of the Group and of its joint ventures and associate companies to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the respective Board of Directors / Trustees either intends to liquidate the respective companies / trusts included in the Group, its joint ventures and associate companies or to cease its operations, or has no realistic alternative but to do so.

9. The respective Board of Directors of the Companies / Trustees of the trusts included in the Group and the respective Board of Directors of its joint ventures and associate companies are responsible for overseeing the financial reporting process of the respective companies / trusts included in the Group and of its joint ventures and associate companies.

Independent Auditor's Report

on the Consolidated Financial Statements

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

10. Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

11. As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:
    - Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
    - Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under Section 143(3)(i) of the Act, we are also responsible for expressing our opinion on whether the Holding Company has adequate internal financial controls with reference to consolidated financial statements in place and the operating effectiveness of such controls. (Refer paragraph 15 below)
    - Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
    - Conclude on the appropriateness of the Holding Company's management use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Group and its joint ventures and associate companies to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group and its joint ventures and associate companies to cease to continue as a going concern.
    - Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
    - Obtain sufficient appropriate audit evidence regarding the financial statements / financial information of the entities or business activities within the Group and its joint ventures and associate companies to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit of the financial statements of such entities included in the consolidated financial statements of which we are the independent auditors. For the other entities included in the consolidated financial statements, which have been audited by other auditors, such other auditors remain responsible for the direction, supervision and performance of the audits carried out by them. We remain solely responsible for our audit opinion.

12. We communicate with those charged with governance of the Holding Company and such other entities included in the consolidated financial statements of which we are the independent auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

13. We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

14. From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Matters

15. We did not audit the financial statements of twelve subsidiaries, consolidated financial statements of one subsidiary, financial statements of two joint operations and two trusts included in the consolidated financial statements of the Holding Company, which constitute total assets of ₹ 151,052 crores and net assets of ₹ 57,654 crores as at March 31, 2024, total revenue of ₹ 137,779 crores, total comprehensive income (comprising of profit and other comprehensive loss) of ₹ 6,124 crores and net cash outflows amounting to ₹ 1,417 crores for the year ended on that date, as considered in the consolidated financial statements. The consolidated financial statements also include the Group's share of total comprehensive income (comprising of profit and other comprehensive loss) of ₹ 2 crores and ₹ * crore for the year ended March 31, 2024 as considered in the consolidated financial statements, in respect of four associate companies and one joint venture respectively, whose financial statements have not been audited by us. These financial statements/ consolidated financial statements have been audited by other auditors whose reports have been furnished to us by the Management / other auditors, and our opinion on the consolidated financial statements insofar as it relates to the amounts and disclosures included in respect of these subsidiaries, joint operations, trusts, joint venture and associate companies and our report in terms of sub-section (3) of Section 143 of the Act including report on Other Information insofar as it relates to the trusts, subsidiary companies, joint operations, joint venture and associate companies which are incorporated in India, is based solely on the reports of the other auditors. In respect of one joint operation an emphasis of matter paragraph with regard to going concern and in respect of one joint operation and one subsidiary, a material uncertainty related to going concern has been reported by the auditors of the respective entities vide their audit report which are not considered to be material to the consolidated financial statements of the Group and its joint ventures and associate companies.

    *Amounts are below the rounding convention used in this report.

16. The financial statements of two trusts and one subsidiary (which is a trust) included in the consolidated financial statements of the Holding Company, which constitute total assets of ₹ 423 crores and net assets of ₹ 42 crores as at March 31, 2024, total revenue of ₹ 7 crores, total comprehensive income (comprising of profit and other comprehensive income) of ₹ 7 crores and net cash inflows amounting to ₹ 10 crores for the year then ended, have been prepared in accordance with generally accepted accounting principles applicable to trusts in India. The Holding Company's management has converted the financial statements of such trusts and subsidiary from the accounting principles generally accepted in India to Accounting Standards specified under Section 133 of the Act. We have audited these conversion adjustments made by the Company's management. Our opinion in so far as it relates to the balances and affairs of such trusts and subsidiary, including other information, is based on the report of other auditors and the conversion adjustments prepared by the management of the Holding Company and audited by us.

17. We did not audit the financial information of three subsidiaries included in the consolidated financial statements of the Holding Company, which constitute total assets of ₹ 24 crores and net liabilities of ₹ 11 crores as at March 31, 2024, total revenue of ₹ 30 crores, total comprehensive loss (comprising of loss and other comprehensive income) of ₹ 4 crores and net cash inflows amounting to ₹ 5 crore for the year ended on that date. The consolidated financial statements also include the Group's share of total comprehensive loss (comprising of loss and other comprehensive loss) of ₹ * crore and ₹ * crore for the year ended March 31, 2024 as considered in the consolidated financial statements, in respect of one associate and one joint venture respectively whose financial information has not been audited by us. These financial information are unaudited and have been furnished to us by the Management, and our opinion on the consolidated financial statements insofar as it relates to the amounts and disclosures included in respect of these subsidiaries, joint venture and

Independent Auditor's Report

on the Consolidated Financial Statements

associate company and our report in terms of sub-section (3) of Section 143 [including Rule 11 of the Companies (Audit and Auditors) Rules, 2014] of the Act including report on Other Information insofar as it relates to the aforesaid subsidiaries, joint venture and associate company, is based solely on such unaudited financial information. In our opinion and according to the information and explanations given to us by the Management, the financial information of the above subsidiaries, joint venture are not material to the consolidated financial statements.

*Amounts are below the rounding convention used in this report.

18. Our opinion on the consolidated financial statements, and our report on Other Legal and Regulatory Requirements below, is not modified in respect of the above matters with respect to our reliance on the work done and the reports of the other auditors and the financial information certified by the Management.

Report on Other Legal and Regulatory Requirements

19. As required by the Companies (Auditor's Report) Order, 2020 ("CARO 2020"), issued by the Central Government of India in terms of sub-section (11) of Section 143 of the Act, we give in the **"Annexure B"**, a statement on the matter specified in paragraph 3(xxi) of CARO 2020.

20. As required by Section 143(3) of the Act, we report, to the extent applicable, that:

(a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit of the aforesaid consolidated financial statements.

(b) In our opinion, proper books of account as required by law relating to preparation of the aforesaid consolidated financial statements have been kept so far as it appears from our examination of those books and the reports of the other auditors, except that: (i) in respect of the Holding Company, in the absence of sufficient appropriate audit evidence for five software applications, we are unable to verify whether the backup of books of account and other books and papers maintained in electronic mode have been maintained on a daily basis on servers physically located in India during the year; (ii) in respect of the Holding Company, the back-up of two software applications for the books of account and other books and papers maintained in electronic mode have been kept on servers physically located in India on a daily basis, but maintained on every working day other than holidays; (iii) in respect of one of the subsidiary company, in the absence of sufficient appropriate audit evidence, we are unable to verify whether the backup of books of account and other books and papers maintained in electronic mode for an accounting software has been maintained on a daily basis on servers physically located in India during the year; and (iv) in respect of the Holding Company, one subsidiary and three associates, the matters stated in paragraph 20(h)(vi) below on reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014 (as amended) ("the Rules").

(c) The Consolidated Balance Sheet, the Consolidated Statement of Profit and Loss (including other comprehensive income), the Consolidated Statement of Changes in Equity and the Consolidated Statement of Cash Flows dealt with by this Report are in agreement with the relevant books of account and records maintained for the purpose of preparation of the consolidated financial statements.

(d) In our opinion, the aforesaid consolidated financial statements comply with the Accounting Standards specified under Section 133 of the Act.

(e) On the basis of the written representations received from the directors of the Holding Company as on April 1, 2024 taken on record by the Board of Directors of the Holding Company and the reports of the statutory auditors of its joint operations, subsidiary companies, joint venture and associate companies incorporated in India, none of the directors of the Holding Company, its joint operations, its subsidiary companies, joint venture and associate companies incorporated in India is disqualified as on March 31, 2024 from being appointed as a director in terms of Section 164(2) of the Act.

(f) With respect to the maintenance of accounts and other matters connected therewith, for the Holding Company and one subsidiary company, reference is made to the remarks in paragraph 20(b) above on reporting under Section 143(3) (b).

Further, the auditors of three associate companies have included the following "The qualification relating to the maintenance of accounts and other matters connected therewith are as stated in the paragraph 17.2 above on reporting under Section 143(3)(b) and paragraph 18.8 below on reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014." The paragraph 17.2 and 18.8 mentioned herein are included in paragraph 20(b) and 20(h)(vi) respectively of this report.

(g) With respect to the adequacy of internal financial controls with reference to consolidated financial statements of the Holding Company, its joint operations, subsidiary companies, joint venture and associate companies incorporated in India and the operating effectiveness of such controls, refer to our separate report in **"Annexure A"**.

(h) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:

i. The consolidated financial statements disclose the impact of pending litigations on the consolidated financial position of the Group, its joint ventures and associate companies –Refer Notes 6, 7, 13 and 31 to the consolidated financial statements.

ii. Provision has been made in the consolidated financial statements, as required under the applicable law or accounting standards, for material foreseeable losses, if any, on long-term contracts including derivative contracts as at March 31, 2024 – Refer Note 5D, 7 and 13 to the consolidated financial statements in respect of such items as it relates to the Group, its joint ventures and associate companies.

iii. Except as stated in Note 12C to the consolidated financial statements, there has been no delay during the year in transferring amounts required to be transferred to the Investor Education and Protection Fund by the Holding Company. Further no amounts were required to be transferred to be transferred to the Investor Education and Protection Fund by the joint operations, subsidiary companies, joint ventures and associate companies incorporated in India.

iv. (a) The respective Managements of the Holding Company, joint operations, subsidiaries, joint venture and associate companies, which are companies incorporated in India whose financial statements have been audited under the Act have represented to us and the other auditors of such joint operations, subsidiaries, joint venture and associate companies respectively that, to the best of their knowledge and belief, no funds (which are material either individually or in the aggregate) have been advanced or loaned or invested (either from borrowed funds or share premium or any other sources or kind of funds) by the Holding Company or any of such joint operations, subsidiaries, joint venture and associate companies to or in any other persons or entities, including foreign entities ("Intermediaries"), with the understanding, whether recorded in writing or otherwise, that the Intermediary shall, directly or indirectly, lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Holding Company or any of such joint operations, subsidiaries, joint venture and associate companies ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries (Refer Note 37(vi) to the consolidated financial statements).

(b) The respective Managements of the Holding Company and its joint operations, subsidiaries, joint venture and associate companies which are companies incorporated in India whose financial statements have been audited under the Act have represented to us and the other auditors of such joint operations, subsidiaries, joint venture and associate companies respectively that, to the best of their knowledge and belief, no funds (which are material either individually or in the aggregate) have been received by the

Independent Auditor's Report

on the Consolidated Financial Statements

Holding Company or any of such joint operations, subsidiaries, joint venture and associate companies from any persons or entities, including foreign entities ("Funding Parties"), with the understanding, whether recorded in writing or otherwise, that the Holding Company or any of such joint operations, subsidiaries, joint venture and associate companies shall, directly or indirectly, lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Funding Party ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries (Refer Note 37(vii) to the consolidated financial statements).

(c) Based on the audit procedures, that has been considered reasonable and appropriate in the circumstances, performed by us and those performed by the auditors of the joint operations, subsidiaries, joint ventures and associate companies, which are companies incorporated in India whose financial statements have been audited under the Act, nothing has come to our or other auditor's notice that has caused us or the other auditors to believe that the representations under sub-clause (i) and (ii) of Rule 11(e) contain any material misstatement.

v. The dividend declared and paid during the year by the Holding Company and one associate company is in compliance with Section 123 of the Act. The other joint operations, subsidiary companies, associate companies and joint venture, incorporated in India have not declared / or paid any dividend during the year.

vi. Based on our examination, which included test checks and that performed by the respective auditors of the joint operations, subsidiaries, joint venture and associate companies, which are companies incorporated in India whose financial statements have been audited under the Act, except for the instances mentioned in the table below, the Group, its joint venture and associate companies have used accounting software for maintaining books of account which have a feature of recording audit trail (edit log) facility and that has operated throughout the year for all relevant transactions recorded in the software. During the course of performing our procedures and that performed by the respective auditors of the joint operations, subsidiaries, joint venture and associate companies, except for the instances mentioned in the table below where the question of commenting on whether the audit trail has been tampered with does not arise, we and the respective auditors did not notice any instance of the audit trail feature being tampered with. Further, auditors of one joint operation, one subsidiary and one joint venture have not reported on Rule 11(g) in their respective audit reports of the joint operation, subsidiary and joint venture.

Sr No.	Name of the Company	Relationship with the Holding Company	Comment on reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014 (as amended) ("the Rules") in respective audit report.
1.	Hindalco Industries Limited	NA	The Company has used multiple accounting software for maintaining its books of account which have a feature of recording audit trail (edit log) facility which operated throughout the year, except that: (a) at the application level, the audit trail feature for one accounting software operated throughout the year for certain transactions; for fourteen accounting software, the audit trail feature operated for the later part of the financial year; for six accounting software, the audit trail feature did not operate throughout the year; for one accounting software, the audit log does not record the modification; and for one accounting software, the service auditors' report on the software provided by the software service provider does not cover reporting on audit trail at the application level and (b) at the database level, the audit trail feature for one accounting software operated only for certain transactions throughout the year; for thirteen accounting software, the audit trail feature operated for the later part of the financial year; for seven accounting software, the audit trail feature did not operate throughout the year; for one accounting software, the audit log does not record the pre-modified values; and for four accounting software, the service auditors' report on the software provided by the software service provider does not cover reporting on audit trail at the database level
2.	Dahej Harbour and Infrastructure Limited	Subsidiary	Based on our examination, which included test checks, the Company has used three accounting software for maintaining its books of account which have a feature of recording audit trail (edit log) facility, except that at the application level, the audit trail feature operated only for the later part of the year for two accounting software, and the audit trail feature operated throughout the year for certain transactions in case of the third accounting software. At the database level, the audit trail feature operated only for the later part of the year for one accounting software, and throughout the year for certain transactions for another accounting software. In respect of the third accounting software, in the absence of adequate evidence of necessary controls and documentation on whether the audit trail feature was enabled for all relevant transactions, we are unable to comment on the existence of audit trail feature for any direct data changes.

Independent Auditor's Report

on the Consolidated Financial Statements

Sr No.	Name of the Company	Relationship with the Holding Company	Comment on reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014 (as amended) ("the Rules") in respective audit report.
3.	Aditya Birla Renewable Subsidiary Limited	Associate	Based on our examination which included test checks, the Company has used an accounting software for maintaining its books of account which has a feature of recording audit trail (edit log) facility except for audit trail (edit log) at the database level to document direct data changes. Although restrictions on database administrator accesses are implemented, logs for the year are unavailable to demonstrate modifications in admin rights or any changes made at the database level.
4.	Aditya Birla Renewable Solar Limited	Associate	
5.	Aditya Birla Renewable Utkal Limited	Associate	
6.	Aditya Birla Science and Technology Company Private Ltd.	Associate	Based on our examination, which included test checks, the Company has used accounting softwarefor maintaining its books of account for the financial year ended 31 March 2024 which has a feature of recording audit trail (edit log) facility and the same has been operated throughout the year for all relevant transactions recorded in the software. The audit trail was operated at application level throughout the year, however no audit trail has been enabled at the database level for the primary software used for maintaining its books of account, to log any direct data changes.
7.	Mahan Coal Limited	Joint operation	Based on our examination which included test checks, and on the basis of explanations provided to us, the company has failed to maintain books of accounts in software which has a feature of recording audit trail (edit log) facility and accordingly the same has not been operated throughout the year for all relevant transactions recorded in the software.

21. The Holding Company, its joint operations, subsidiary companies, joint ventures and associate companies have paid/ provided for managerial remuneration in accordance with the requisite approvals mandated by the provisions of Section 197 read with Schedule V to the Act.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/ E-300009

Sarah George
Partner
Membership Number: 045255
UDIN: 24045255BKGUFG3970

Mumbai
May 24, 2024

Annexure A to Independent Auditor's Report

on the Consolidated Financial Statements

Referred to in paragraph 20(g) of the Independent Auditor's Report of even date to the members of Hindalco Industries Limited on the consolidated financial statements as of and for the year ended March 31, 2024.

Report on the Internal Financial Controls with reference to Consolidated Financial Statements under clause (i) of sub-section 3 of Section 143 of the Act

1. In conjunction with our audit of the consolidated financial statements of Hindalco Industries Limited (hereinafter referred to as "the Holding Company") as of and for the year ended March 31, 2024, we have audited the internal financial controls with reference to the consolidated financial statements of the Holding Company which includes the internal financial controls over financial reporting of the Holding Company, its two joint operations, twelve subsidiary companies, one joint venture and four associate companies, which are companies incorporated in India, as of that date.

Management's Responsibility for Internal Financial Controls

2. The respective Board of Directors of the Holding Company, its joint operations, subsidiary companies, joint venture and associate companies, to whom reporting under clause (i) of sub section 3 of Section 143 of the Act in respect of the adequacy of the internal financial controls with reference to consolidated financial statements is applicable, which are companies incorporated in India, are responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Holding Company, its joint operations, subsidiary companies, joint venture and associate companies, considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting ("the Guidance Note") issued by the Institute of Chartered Accountants of India ("ICAI"). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to the respective company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Act.

Auditor's Responsibility

3. Our responsibility is to express an opinion on the Holding Company's internal financial controls with reference to consolidated financial statements based on our audit. We conducted our audit in accordance with the Guidance Note issued by the ICAI and the Standards on Auditing deemed to be prescribed under Section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls, both applicable to an audit of internal financial controls and both issued by the ICAI. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to consolidated financial statements was established and maintained and if such controls operated effectively in all material respects.

4. Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system with reference to consolidated financial statements and their operating effectiveness. Our audit of internal financial controls with reference to consolidated financial statements included obtaining an understanding of internal financial controls with reference to consolidated financial statements, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error.

5. We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors in terms of their reports referred to in the Other Matter section below is sufficient and appropriate to provide a basis for our audit opinion on the Holding Company's internal financial controls system with reference to consolidated financial statements.

Annexure A to Independent Auditor's Report

on the Consolidated Financial Statements

Meaning of Internal Financial Controls with reference to financial statements

6. A Company's internal financial controls with reference to financial statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A Company's internal financial controls with reference to financial statements includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorisations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial Controls with reference to financial statements

7. Because of the inherent limitations of internal financial controls with reference to financial statements, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to financial statements to future periods are subject to the risk that the internal financial controls with reference to financial statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

8. In our opinion, the Holding Company, its two joint operations, twelve subsidiary companies, one joint venture and one associate company, which are companies incorporated in India, have, in all material respects, an adequate internal financial controls system with reference to financial statements and such internal financial controls with reference to financial statements were operating effectively as at March 31, 2024, based on the internal control over financial reporting criteria established by the respective companies considering the essential components of internal control stated in the Guidance Note issued by the ICAI.

9. We report that the auditors of three associate companies have given the following opinion in report on the Internal Financial Controls with reference to Financial Statements under clause (i) of sub-section 3 of Section 143 of the Act of their respective companies that are included in the consolidated financial statements of the Holding Company:

Sr No.	Name of the Entity	Relationship with the Holding Company	Comments in the opinion paragraph in report on the Internal Financial Controls
1.	Aditya Birla Renewables Subsidiary Limited.	Associate	According to the information and explanations given to us, the Company has maintained an internal financial control system with reference to the Financial Statements, design whereof needs to be enhanced to make it comprehensive. In our opinion, based on verification of process controls matrixes on test check basis and the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India ('the Guidance Note'), the operating effectiveness of such process controls and appropriate documentation thereof needs to be strengthened to make the same commensurate with the size of the Company and nature of its business. The enhancements required in the design and the operating effectiveness of the internal financial control system with reference to financial statements does not affect our opinion on the financial statements of the Company.
2.	Aditya Birla Renewables Solar Limited.	Associate	
3.	Aditya Birla Renewables Utkal Limited.	Associate	

Other Matter

10. Our aforesaid report under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls with reference to consolidated financial statements insofar as it relates to two joint operations, eleven subsidiary companies, one joint venture and four associate companies which are companies incorporated in India, is based on the corresponding reports of the auditors of such joint operations, subsidiaries, joint venture and associate companies incorporated in India.

    Our opinion is not modified in respect of this matter.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E / E-300009

Sarah George
Partner
Membership Number: 045255
UDIN: 24045255BKGUFG3970

Mumbai
May 24, 2024

Annexure B to Independent Auditor's Report

on the Consolidated Financial Statements

Referred to in paragraph 19 of the Independent Auditor's Report of even date to the members of Hindalco Industries Limited on the Consolidated Financial Statements as of and for the year ended March 31, 2024.

1. As required by paragraph 3(xxi) of the CARO 2020, we report that the auditors of the following companies have given qualification or adverse remarks in their CARO report on the standalone financial statements of the respective companies included in the Consolidated Financial Statements of the Holding Company:

Sr No.	Name of the Company	CIN	Relationship with the Holding Company	Date of the respective auditors' report	Paragraph number and comment in the respective CARO report reproduced below
1.	Hindalco Industries Limited	L27020MH1958PLC011238	Not Applicable	May 24, 2024	xi. (a) During the course of our examination of the books and records of the Company, carried out in accordance with the generally accepted auditing practices in India, except for an instance aggregating ₹ 2 crores identified by management and for which the management has taken appropriate steps including implementation of additional controls and plan to recover the sum, we have neither come across any instance of material fraud by the Company or on the Company, noticed or reported during the year, nor have we been informed of such case by the Management. (b) During the course of our examination of the books and records of the Company, carried out in accordance with the generally accepted auditing practices in India, a report under Section 143(12) of the Act, in Form ADT-4, as prescribed under rule 13 of Companies (Audit and Auditors) Rules, 2014 is required to be filed with the Central Government in relation to the matter explained in clause (xi)(a) above, and in connection with that filing we are taking appropriate steps.
2.	East Coast Bauxite Mining Company Private Limited	U13203OR2007PTC009597	Subsidiary	April 26, 2024	(xvii) Cash Losses - In our opinion and on the basis of available Financial Statements subjected to audit, the company has incurred cash losses in the current Financial Year and in the immediately preceding Financial Year. The figures of Current financial Year and the previous Financial Year are ₹ /- & ₹ /- respectively. xix) Material Uncertainty - As per the information and explanations obtained and on the basis of reasonable scrutiny of books of account and available records, we are of the opinion that there exists material uncertainty on the date of the audit report that the company is not capable of meeting its liabilities existing at the date of Balance Sheet as and when they fall within a period of one year from the balance sheet date. In our opinion there is no possibility that the Company would ever be able to pursue its object in future also because of prevailing material uncertainty with respect to operations. The Net worth of the Company has also been eroded fully and the Company is only thriving on the funds of the holding company for its expenses.
3.	MNH Shakti Limited	U10100OR2008GOI010171	Joint Venture	April 13, 2024	(xvii) The company has not commenced any business/service during the year. It has incurred cash loss during the financial year covered by our audit and also in the immediately preceding financial year on account of preoperative expenses incurred by the company. xix) On the basis of the financial ratios, ageing and expected dates of realization of financial assets and payments of financial liabilities, other information accompanying the financial statements and our knowledge of the Board of Directors and Management plans and based on our examination of the evidence supporting the assumptions, nothing has come to our attention, which causes us to believe that any material uncertainty exists as on the date of the audit report indicating that Company is not capable of meeting its liabilities existing at the date of balance sheet as and when the fall due within a period of one year from the balance sheet date.

Annexure B to Independent Auditor's Report

on the Consolidated Financial Statements

Sr No.	Name of the Company	CIN	Relationship with the Holding Company	Date of the respective auditors' report	Paragraph number and comment in the respective CARO report reproduced below
					We however, state that this is not an assurance as to the future viability of the Company. We further state that our reporting is based on the facts upto the date of audit report and we neither give any guarantee nor any assurance that all liabilities falling due within a period of one year from the balance sheet date, will get discharged by the Company as and when the fall due.
4.	Mahan Coal Limited - Joint Operations	U01010MP2006PLC018586	Joint Operation	May 16, 2024	(xiv) The Company did not have an internal audit system for the year under Audit. (xvii) The Company has incurred cash losses during the current financial year as well as in the immediately preceding financial year. The amount of cash loss during the current year is ₹ 1198.49 and ₹ 2,065.01 (₹ In hundreds) in the immediately preceding financial year.
5.	Aditya Birla Renewables Subsidiary Limited.	U40108MH2018PLC309087	Associate	May 13, 2024	i.(a) A) The Company has not maintained comprehensive records showing full particulars of Property, Plant and Equipment ('PPE') including its quantitative details, situation and value of individual assets. However, the process of updating these records is currently in progress.
6.	Aditya Birla Renewables Solar Limited	U40106MH2020PLC339323	Associate	May 15, 2024	i.(a)(A)- The Company has not maintained comprehensive records showing full particulars of Property, Plant and Equipment ('PPE') including its quantitative details, situation and value of individual assets. However, the process of updating these records is currently in progress. (ix).(a) In our opinion and according to the information and explanation given to us, the Company has defaulted in repayment of loans or other borrowings or in the payment of interest thereon to lender. Details of defaults are mentioned in the table below. (Refer Appendix 1)
					(ix). (d) According to the information and explanations given to us, and the procedures performed by us, and on an overall examination of the financial statements of the Company, we report that the company has used funds raised on short term basis aggregating to ₹ 955.28 Lakhs for long term purposes.
7.	Aditya Birla Renewables Utkal Limited	U40300MH2019PLC325878	Associate	April 30, 2024	(i).a) A) The Company has not maintained comprehensive records showing full particulars of Property, Plant and Equipment ('PPE') including its quantitative details, situation and value of individual assets. However, the process of updating these records is currently in progress.

2. The statutory audit report on the financial statements for the year ended March 31, 2024, of Ayana Renewable Power Four Private Limited, an associate of the Holding Company has not been issued until the date of this report. Accordingly, no comments for the said associate have been included for the purpose of reporting under this clause.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E / E-300009

Sarah George
Partner
Membership Number: 045255
UDIN: 24045255BKGUFG3970

Mumbai
May 24, 2024

Appendix 1:

Nature of borrowing, including debt securities	Name of lender	Amount not paid on due date	Whether principal or interest	No. of days Delay or unpaid	Remarks if any
Inter Corporate Deposit	Aditya Birla Renewables Limited	Rs 53.99 Lakhs	Interest	40 - 175 Days delay	Paid during the year

Consolidated Balance Sheet

as at March 31, 2024

(₹ Crore)

	Note	As at 31/03/2024	As at 31/03/2023
ASSETS			
Non-current assets			
Property, plant and equipment	3A	77,151	75,849
Capital work-in-progress	3B	14,643	7,340
Right of use assets	3C	2,547	2,681
Investment properties	3E	46	20
Goodwill	4	26,075	25,745
Other intangible assets	3F	5,991	6,331
Intangible assets under development	3F	224	360
Equity accounted investments	1C	110	79
Financial assets	5		
Investments	5A	12,062	8,180
Loans	5C	7	47
Derivatives	5D	91	181
Other financial assets	5E	3,737	3,124
Non-current tax assets (Net)	6B	7	8
Deferred tax assets (Net)	6C (a)	1,184	1,328
Other non-current assets	7	5,689	4,233
Total non-current assets		**149,564**	**135,506**
Current assets			
Inventories	8A	40,812	42,958
Financial assets	5		
Investments	5B	3,272	5,857
Trade receivables	5F	16,404	16,214
Cash and cash equivalents	5G	11,816	12,840
Bank balances other than cash and cash equivalents	5H	2,621	2,243
Loans	5C	32	8
Derivatives	5D	631	1,710
Other financial assets	5E	1,892	1,682
Current tax assets (Net)	6B	117	109
Other current assets	7	4,702	5,639
		82,299	89,260
Non-current assets or disposal group classified as held for sale	9	44	51
Total current assets		82,343	89,311
Total assets		231,907	224,817

(₹ Crore)

	Note	As at 31/03/2024	As at 31/03/2023
EQUITY AND LIABILITIES			
Equity			
Equity share capital	10	222	222
Other equity	11	105,924	94,584
Equity attributable to owners of the Company		**106,146**	**94,806**
Non-controlling interests		11	11
Total equity		**106,157**	**94,817**
Liabilities			
Non-current liabilities			
Financial liabilities	12		
Borrowings	12A	47,395	51,434
Lease liabilities	3D	1,431	1,491
Derivatives	5D	42	56
Other financial liabilities	12C	314	207
Provisions	13	618	586
Employee benefit obligations	14B	5,617	5,305
Deferred tax liabilities (Net)	6C (b)	9,344	8,650
Other non-current liabilities	16	1,638	1,813
Total non-current liabilities		**66,399**	**69,542**
Current liabilities			
Financial liabilities	12		
Borrowings	12B	7,106	6,901
Lease liabilities	3D	424	465
Supplier's credit	12D	4,475	5,635
Trade payables	12E		
(I) Outstanding dues of micro and small enterprises		175	192
(II) Outstanding dues other than micro and small enterprises		34,269	35,668
Derivatives	5D	1,356	1,257
Other financial liabilities	12C	3,590	2,913
Provisions	13	2,021	2,077
Employee benefit obligations	14B	1,137	1,129
Contract liabilities	15	366	340
Current tax liabilities (Net)	6B	2,452	2,099
Other current liabilities	16	1,980	1,782
Total current liabilities		59,351	60,458
Total liabilities		125,750	130,000
Total equity and liabilities		231,907	224,817
Notes forming part of consolidated financial statements	1-39		

This is the Consolidated Balance Sheet referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place: Mumbai
Dated: May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN-00026078

Consolidated Statement of Profit and Loss

for the year ended March 31, 2024

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
INCOME			
Revenue from operations	17	215,962	223,202
Other income	18	1,496	1,257
Total income		**217,458**	**224,459**
EXPENSES			
Cost of materials consumed	19	130,768	135,976
Purchases of stock-in-trade	20	1,758	1,553
Changes in inventories of finished goods, work-in-progress and stock-in-trade	8B	1,329	3,241
Employee benefits expense	14A	14,778	13,063
Power and fuel	21	14,476	17,346
Finance cost	22	3,858	3,646
Depreciation and amortization expense	3G	7,521	7,086
Impairment loss/ (reversal) on non-current assets (Net)	3H	360	208
Impairment loss/ (reversal) on financial assets (Net)	23	25	11
Other expenses	24	28,596	29,138
Total expenses		**203,469**	**211,268**
Profit/ (Loss) before share in profit/ (loss) in equity accounted investments, exceptional items and tax		13,989	13,191
Share in profit/ (loss) in equity accounted investments (Net of tax)	1C	2	9
Profit/ (Loss) before exceptional items and tax		13,991	13,200
Exceptional income/ (expenses) (Net)	25	21	41
Profit/ (Loss) before tax		**14,012**	**13,241**
Tax expense	6A		
Current tax expense		3,005	2,856
Deferred tax expense		852	288
Profit/ (Loss) for the year		**10,155**	**10,097**
Other comprehensive income/ (loss)	26		
Items that will not be reclassified to Statement of Profit and Loss			
Remeasurement of defined benefit obligation		(223)	969
Change in fair value of equity instruments designated as FVTOCI		2,800	(494)
Income tax effect		(242)	(199)

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
Items that will be reclassified to Statement of Profit and Loss			
Change in Fair Value of Trade Receivables Designated as FVTOCI		(77)	-
Change in fair value of debt instruments designated as FVTOCI		8	(13)
Effective portion of cash flow hedges		(850)	7,773
Cost of hedging reserve		(36)	64
Foreign currency translation reserve		272	1,704
Income tax effect		278	(2,344)
Other comprehensive income/ (loss) for the year		**1,930**	**7,460**
Total comprehensive Income/ (loss) for the year		**12,085**	**17,557**
Profit/ (loss) attributable to:			
Owners of the Company		10,155	10,097
Non-controlling interests		-	-
Other comprehensive income/ (loss) attributable to:			
Owners of the Company		1,930	7,460
Non-controlling interests		-	-
Total comprehensive income/ (loss) attributable to:			
Owners of the Company		12,085	17,557
Non-controlling interests		-	-
Earnings Per Share:	27		
Basic (₹)		45.71	45.42
Diluted (₹)		45.65	45.36
Notes forming part of consolidated financial statements	1-39		

This is the Consolidated Statement of Profit and Loss referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place: Mumbai
Dated: May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN-00026078

Consolidated Statement of Changes in Equity

for the year ended March 31, 2024

A. Equity share capital

(₹ crore)

Particulars	Note	Amount
Balance as at April 01, 2022	**10**	**222**
Changes in equity share capital		-
Balance as at March 31, 2023	**10**	**222**
Changes in equity share capital		-
Balance as at March 31, 2024	**10**	**222**

B. Other equity

(₹ Crore)

Particulars	Note	Equity component of other financial instruments	Reserve and surplus										Other reserves						Attributable to owners of the company	Attributable to Non controlling interests	Total other equity
			Capital reserve	Capital redemption reserve	Business reconstruction reserve	Securities premium	Debenture redemption reserve	Employees stock options	Treasury shares heldby ESOP trust	Special reserve	General reserve	Retained earnings	Gain/ (Loss) on equity instruments FVTOCI	Gain/ (Loss) on debt instruments FVTOCI	Effective portion of cash flow hedge	Cost of hedging reserve	Trade receivables FVTOCI	Foreign currency translation reserve			
Balance as at April 01, 2022		4	147	104	5,799	8,234	1,500	75	(199)	20	21,370	36,810	5,334	(5)	(4,894)	(39)	-	3,709	77,969	11	77,980
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	-	10,097	-	-	-	-		-	10,097	-	10,097
Other comprehensive income/(loss) for the year		-	-	-	-	-	-	-	-	-	-	700	(424)	(9)	5,447	42		1,704	7,460	-	7,460
Total comprehensive income/(loss) for the year		-	-	-	-	-	-	-	-	-	-	**10,797**	**(424)**	**(9)**	**5,447**	**42**	-	**1,704**	**17,557**	-	**17,557**
Hedging (gain)/ loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	-	23	-		-	23	-	23
Transfer to debenture redemption reserve		-	-	-	-	-	(1,500)	-	-	-	-	1,500	-	-	-	-		-	-	-	-
Transfer to special reserve		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
Other changes		-	-	-	-	-	-	-	-	-	-	2	-	-	(120)	-		120	2	-	2
Transactions with owners in their capacity as owners																					
Shares acquired by the trust		-	-	-	-	-	-	-	(131)	-	-	-	-	-	-	-		-	(131)	-	(131)
Shares issued by the trust		-	-	-	-	-	-	(15)	24	-	-	(3)	-	-	-	-		-	6	-	6
Employee share options expenses		-	-	-	-	-	-	48	-	-	-	-	-	-	-	-		-	48	-	48
Dividend paid		-	-	-	-	-	-	-	-	-	-	(890)	-	-	-	-		-	(890)	-	(890)
Balance as at March 31, 2023	11	4	147	104	5,799	8,234	-	108	(306)	20	21,370	48,216	4,910	(14)	456	3	-	5,533	94,584	11	94,595

B. Other equity

(₹ Crore)

Particulars	Note	Equity component of other financial instruments	Reserve and surplus										Other reserves						Attributable to owners of the company	Attributable to Non controlling interests	Total other equity
			Capital reserve	Capital redemption reserve	Business reconstruction reserve	Securities premium	Debenture redemption reserve	Employees stock options	Treasury shares heldby ESOP trust	Special reserve	General reserve	Retained earnings	Gain/ (Loss) on equity instruments FVTOCI	Gain/ (Loss) on debt instruments FVTOCI	Effective portion of cash flow hedge	Cost of hedging reserve	Trade receivables FVTOCI	Foreign currency translation reserve			
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	-	10,155	-	-	-	-		-	10,155	-	10,155
Other comprehensive income/(loss) for the year		-	-	-	-	-	-	-	-	-	-	(146)	2,481	5	(605)	(23)	(54)	272	1,930	-	1,930
Total comprehensive income/(loss) for the year		-	-	-	-	-	-	-	-	-	-	**10,009**	**2,481**	**5**	**(605)**	**(23)**	**(54)**	**272**	**12,085**	-	**12,085**
Hedging (gain)/ loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	-	(36)	-		-	(36)	-	(36)
Transfer to debenture redemption reserve		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
Transfer to special reserve		-	-	-	-	-	-	-	-	1	-	(1)	-	-	-	-		-	-	-	-
Other changes		-	-	-	-	-	-	-	-	-	-	-	-	-	15	-		(15)	-	-	-
Transactions with owners in their capacity as owners																					
Shares acquired by the trust		-	-	-	-	-	-	-	(119)	-	-	-	-	-	-	-		-	(119)	-	(119)
Shares issued by the trust		-	-	-	-	1	-	(27)	48	-	-	(2)	-	-	-	-		-	20	-	20
Employee share options expenses		-	-	-	-	-	-	57	-	-	-	-	-	-	-	-		-	57	-	57
Employee Share Options Lapsed/Forfeited		-	-	-	-	-	-	(1)	-	-	-	1	-	-	-	-		-	-	-	-
Dividend paid		-	-	-	-	-	-	-	-	-	-	(667)	-	-	-	-		-	(667)	-	(667)
Balance as at March 31, 2024	11	4	147	104	5,799	8,235	-	137	(377)	21	21,370	57,556	7,391	(9)	(170)	(20)	(54)	5,790	105,924	11	105,935

Notes forming part of consolidated financial statements 1-39

There are no prior period errors, and hence disclosure with respect to the restatement of the opening balance of "Equity share capital" and "Other equity" is not applicable.

This is the Consolidated Statement of Changes in Equity referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place: Mumbai
Dated: May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN-00026078

Consolidated Statement of Cash Flows

for the year ended March 31, 2024

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit/ (Loss) before tax		14,012	13,241
Adjustment for :			
Finance cost	22	3,858	3,646
Depreciation and amortization expense	3G	7,521	7,086
Impairment loss/ (reversal) of non-current assets (net)	3H	360	208
Impairment loss/ (reversal) on financial assets (net)	23	25	11
Equity settled share-based payment	14A	57	48
Share in (profit)/ loss in equity accounted investments (net of tax)	1C	(2)	(9)
Unrealised foreign exchange (gain)/ loss (net)		(8)	(92)
Unrealised (gain)/ loss on derivative transactions (net)		350	(631)
Fair value (gain)/ loss on modification of borrowings (net)		(146)	(48)
(Gain)/ Loss on assets held for sale (net)		(7)	5
(Gain)/ Loss on property, plant and equipment and intangible assets sold/ discarded (net)	18	85	41
Interest income	18	(786)	(559)
Dividend income	18	(34)	(34)
Gains/(Loss) on investments measured at FVTPL (net)	18	(251)	(202)
Exceptional (income)/ expenses (net)		(21)	(41)
Changes in cash flow hedges net of reclassification from OCI		15	1
Amortization of government grants		(237)	(230)
Other non-operating (income)/ expenses (net)		(4)	4
Operating profit before working capital changes		24,787	22,445
Changes in working capital:			
(Increase)/ Decrease in inventories		2,381	2,839
(Increase)/ Decrease in trade receivables		1	5,751
(Increase)/ Decrease in other financial assets		(98)	408
(Increase)/ Decrease in non-financial assets		1,074	(1,464)
Increase/ (Decrease) in trade payables		(1,731)	(6,527)
Increase/ (Decrease) in other financial liabilities		(81)	(1,280)
Increase/ (Decrease) in non-financial liabilities (including contract liabilities)		398	(184)
Cash generated from operation before tax		**26,731**	**21,988**
Refund/ (Payment) of income tax (net)		(2,675)	(2,733)
Net cash generated/ (used) - operating activities - continuing operations		**24,056**	**19,255**
Net cash generated/ (used) - operating activities - discontinued operations		-	(47)
Net cash generated/ (used) - operating activities		**24,056**	**19,208**
B. CASH FLOW FROM INVESTMENT ACTIVITIES			
Payments to acquire property, plant and equipment, intangible assets and investment property		(15,728)	(9,737)
Proceeds from disposal of property, plant and equipment, intangible assets and investment property		50	100
Net cash inflow on disposal of subsidiaries/ business		-	24
Investment in equity accounted investees		(30)	(17)
Investment in equity shares at FVTOCI		(43)	(57)
(Purchase)/ Sale of other investments (net)		1,899	(214)
Loans and Deposits given		(3,468)	(3,222)
Receipt of loans and deposits given		2,445	4,615
Interest received		551	445
Dividend received		34	34
Lease payments received from finance lease		14	13
Net cash generated/ (used) - investing activities		**(14,276)**	**(8,016)**

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
C. CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from issue of equity shares (including share application money)	-	-	
Treasury shares acquired by ESOP trust		(119)	(131)
Proceeds from shares issued by ESOP trust		20	6
Proceeds from non-current borrowings		3,990	701
Pre-payment of non-current borrowings		(4,477)	(3,451)
Repayment of non-current borrowings		(1,273)	(6,174)
Increase/ (Decrease) in supplier's credit (net)		(1,246)	3,214
Principal payments of lease liabilities		(500)	(512)
Proceeds from/ (repayment) of current borrowings (net)		(2,633)	737
Finance cost paid		(3,912)	(3,950)
Dividend paid		(667)	(890)
Net cash generated/ (used) - financing activities		**(10,817)**	**(10,450)**
Net increase/ (decrease) in cash and cash equivalents		**(1,037)**	**742**
Add : Opening cash and cash equivalents		12,838	11,639
Add : Effect of exchange variation on cash and cash equivalents		9	457
Closing cash and cash equivalents		**11,810**	**12,838**
Reconciliation of closing cash and cash equivalents with Balance Sheet:			
Cash and cash equivalents as per balance sheet	5G	11,816	12,840
Less: Fair Value adjustments in Liquid Investments		-	-
Less: Temporary overdraft balance in current accounts	12C	(6)	(2)
Cash and cash equivalents as per statement of cash flows		**11,810**	**12,838**
Supplemental information			
Non cash transaction from investing and financing activities:			
Acquisition of right of use assets	3C	410	1,148

Above Statement of Cash flows has been prepared using the indirect method, whereby the profit before tax is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments and item of income or expenses associated with investing or financing cash flows. The cash flows from operating, investing and financing activities of the Group are segregated.

For the purposes of the statement of cash flows, cash and cash equivalents is net of outstanding bank overdrafts which are an integral part of cash management activities. In the consolidated balance sheet, bank overdrafts are shown within borrowings in current liabilities.

Notes forming part of consolidated financial statements **1-39**

This is the Consolidated Statement of Cash Flows referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place: Mumbai
Dated: May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN-00026078

Notes

forming part of the Consolidated Financial Statements

1. Group information:

Hindalco Industries Limited ("the Company/ Parent"), bearing Corporate Identity Number (CIN) L27020MH1958PLC011238, is a public limited company incorporated in India in the year 1958. The Company is domiciled in India and its registered office is at 21st Floor, One Unity Center, Senapati Bapat Marg, Prabhadevi, Mumbai 400013. The equity shares of the Company are listed on the National Stock Exchange of India Limited (NSE) and BSE Limited (BSE) and its Global Depositary Receipts (GDR) are listed on the Luxembourg Stock Exchange.

The Company along with it's two Joint Operations, two Trusts and its Subsidiaries (collectively referred to as"the Group") and its interest in Associates and Joint Ventures has manufacturing operations in eleven countries including India spread over four continents viz. North America, South America, Asia and Europe. The Group is primarily engaged in two main streams of business namely Aluminium and Copper.

In the Aluminium business, the Group has a presence across the entire value chain starting from the mining of bauxite and coal through the production of primary aluminium (upstream segment) and value added products (downstream segment) like flat rolled products, extrusion and light gauge products for use in various applications like packaging, can, foil, food and beverage as well as products for use in aerospace, automotive, electronic, transportation, building and construction and other industrial products.

In the Copper business, the Group has one of the largest single location Copper smelting facility in India. The Group produces copper cathode, copper rods and precious metals.

The consolidated financial statements ("the financial statements") which have been approved for issue by the Board of Directors of the Company in their meeting held on May 24, 2024, presents the financial position of the Group as well as its interest in associates and joint ventures.

The list of entities incorporated in the consolidated financial statements are given below:

1A. Subsidiaries:

The Group's subsidiaries as at March 31, 2024, are given below. The principal place of business is also their country of incorporation and the ownership interest held is equal to voting rights held by the Group.

(a) Wholly-owned subsidiaries

S. No.	Name of the Entity	Principal activity	Principal place of business
1	Minerals & Minerals Limited	Mining	India
2	Renukeshwar Investments & Finance Limited	Investment	India
3	Renuka Investments & Finance Limited	Investment	India
4	Lucknow Finance Company Limited	Investment	India
5	Dahej Harbour and Infrastructure Limited	Cargo services	India
6	Utkal Alumina International Limited	Manufacturing	India
7	Birla Copper Asoj Private Limited	Manufacturing	India
8	AV Minerals (Netherlands) N.V.	Investment	Netherland
9	Novelis Inc.	Manufacturing	Canada
10	Novelis do Brasil Ltda. - (vi)	Manufacturing	Brazil
11	Brecha Energetica Ltda. - (vi)	Distribution Services	Brazil
12	4260848 Canada Inc. - (vi)	Management Company	Canada
13	4260856 Canada Inc. - (vi)	Management Company	Canada
14	8018227 Canada Inc. - (vi)	Management Company	Canada
15	Novelis (China) Aluminum Products Co., Ltd. - (vi)	Manufacturing	China
16	Novelis (Shanghai) Aluminum Trading Co., Ltd. - (vi)	Import and export aluminum	China
17	Novelis Ventures LLC - (vi)	Holding Company	USA
18	Novelis PAE SAS - (vi)	Engineering	France
19	Novelis Aluminium Beteiligungs GmbH - (vi)	Dormant	Germany
20	Novelis Deutschland GmbH - (vi)	Manufacturing	Germany
21	Novelis Sheet Ingot GmbH - (vi)	Manufacturing	Germany
22	Novelis Aluminum Holding Unlimited Company - (vi)	Intermediate subsidiary	Ireland
23	Novelis Italia SpA - (vi)	Manufacturing	Italy
24	Novelis de Mexico S.A. de C.V. - (vi)	Dormant	Mexico
25	Novelis Korea Limited - (vi)	Manufacturing	South Korea
26	Novelis AG - (vi)	Management Company	Switzerland
27	Novelis Switzerland S.A. - (vi)	Manufacturing	Switzerland
28	Novelis MEA Ltd. - (vi)	Import and export aluminum	UAE
29	Novelis Europe Holdings Limited - (vi)	Intermediate subsidiary	UK
30	Novelis UK Ltd. - (vi)	Manufacturing	UK
31	Novelis Services Limited - (vi)	Management Company	UK
32	Novelis Corporation - (vi)	Manufacturing	USA
33	Novelis South America Holdings LLC - (vi)	Intermediate subsidiary	USA
34	Novelis Holdings Inc. - (vi)	Intermediate subsidiary	USA
35	Novelis Services (North America) Inc. - (vi)	Cash management service provider	USA
36	Novelis Global Employment Organization, Inc. - (vi)	Management Company	USA
37	Novelis Services (Europe) Inc. - (vi)	Management Company	USA
38	Novelis Vietnam Company Limited - (vi)	Manufacturing	Vietnam
39	Aleris Asia Pacific International (Barbados) Ltd. - (vi)	Holding Company	Barbados
40	Novelis Aluminum (Zhenjiang) Co., Ltd. - (vi)	Manufacturing	China
41	Aleris (Shanghai) Trading Co., Ltd. - (i)	Management Company	China
42	Aleris Asia Pacific Limited - (vi)	Holding Company	Hong Kong
43	Aleris Aluminum Japan, Ltd. - (vi)	Sales Office	Japan

Notes

forming part of the Consolidated Financial Statements

S. No.	Name of the Entity	Principal activity	Principal place of business
44	Novelis Casthouse Germany GmbH - (vi)	Manufacturing	Germany
45	Novelis Deutschland Holding GmbH - (vi)	Holding Company	Germany
46	Novelis Koblenz GmbH - (vi)	Manufacturing	Germany
47	Novelis Netherlands B.V. - (vi)	Management Company	Netherlands
48	Aleris Switzerland GmbH - (vi)	Management Company	Switzerland
49	Aleris Aluminum UK Limited - (ii)	Sales Office	UK
50	Aleris Holding Canada ULC - (iii)	Holding Company	Canada
51	Novelis ALR Aluminum Holdings Corporation - (vi)	Manufacturing	USA
52	Novelis ALR International, Inc. - (vi)	Manufacturing	USA
53	Novelis ALR Rolled Products, LLC - (vi)	Management Company	USA
54	Novelis ALR Rolled Products, Inc. - (vi)	Management Company	USA
55	Novelis ALR Aluminum, LLC - (vi)	Management Company	USA
56	Novelis ALR Rolled Products Sales Corporation - (vi)	Management Company	USA
57	Novelis ALR Recycling of Ohio, LLC - (vi)	Manufacturing	USA
58	Novelis ALR Aluminum-Alabama, LLC - (vi)	Dormant	USA
59	Novelis ALR Asset Management Corporation - (vi)	Holding Company	USA
60	White Rock USA Protected Cell 24 - (v) and (vi)	Captive Insurance Cell	USA
61	Hindalco Kabushiki Kaisha	Sales Office	Japan
62	Utkal Alumina Social Welfare Foundation	Welfare	India
63	Kosala Livelihood and Social Foundation	Welfare	India
64	Hindalco Jana Seva Trust - (iv)	Welfare	India
65	Copper Jana Seva Trust - (iv)	Welfare	India
66	Utkal Alumina Jan Seva Trust - (iv)	Welfare	India

(i) Aleris (Shanghai) Trading Co., Ltd. (Subsidiary of Novelis Inc.) was dissolved on December 01, 2023.

(ii) Aleris Aluminum UK Limited (Subsidiary of Novelis Inc.) was dissolved on January 30, 2024.

(iii) Aleris Holding Canada ULC (Subsidiary of Novelis Inc.) was dissolved on February 13, 2024.

(iv) Trusts controlled by the Group.

(v) Novelis is participating in a protected rent-a-captive arrangement viz. White Rock USA Protected Cell with the purpose of maintaining incremental insurance coverage. This Participant Agreement was entered into on March 28, 2022 and effective as of March 9, 2022. This structure is not an incorporated legal entity, but Novelis has control over the specified assets of this protected cell which are the only source of payment for specified liabilities of the protected cell (Deemed separate entity).

(vi) Subsidiaries of Novelis Inc.

(b) Non-controlling interests

S. No.	Name of Entity	Principal activity	Principal place of business	Non-controlling interests	
				31/03/2024	31/03/2023
1	Suvas Holdings Limited	Power Generation	India	26.00%	26.00%
2	Hindalco-Almex Aerospace Limited	Manufacturing	India	2.82%	2.82%
3	East Coast Bauxite Mining Company Private Limited	Mining	India	26.00%	26.00%

(i) None of the above non-wholly owned subsidiaries are material to the Group.

1B. Joint operations

The Group is engaged in various arrangements on a joint basis with other companies. The principal place of business is also their country of incorporation for all the joint operations. In assessing whether joint control exists for these arrangements, the management evaluates the structure and legal framework and contracts governing the arrangement combined with an assessment of those decisions that significantly influence the return from the arrangement. The Group assesses whether joint arrangements are joint operations where the Group has rights to the assets and obligations for the liabilities related to the arrangement, or a joint venture where the Group has an interest in the net assets of the joint arrangement. Accordingly, the following joint arrangements have been identified as joint operations:

S. No.	Name of the Joint Operations	Principal activity	Principal Place of business	Group's proportion of ownership interest and voting power	
				31/03/2024	31/03/2023
1	Mahan Coal Limited - (a) (i)	Mining	India	50%	50%
2	Tubed Coal Mines Limited - (a) (ii)	Mining	India	60%	60%
3	Aluminum Norf GmbH - (b) (i)	Rolling and recycling	Germany	50%	50%
4	Logan Aluminum Inc. - (b) (ii)	Rolling and finishing	USA	40%	40%
5	Ulsan Aluminum Limited - (b) (iii)	Rolling and recycling	South Korea	50%	50%
6	AluInfra Services SA - (b) (iv)	Service Company	Switzerland	50%	50%

(a) The proportionate share of total assets, liabilities and total comprehensive income of Mahan Coal Limited and Tubed Coal Mines Limited are included in the standalone financial statements of the Parent. Both the joint operations are not material to the Group.

(i) The Company and Essar Power M.P. Limited ('EPMPL') have joint control over Mahan Coal Limited ('MCL'), a coal mining company. The coal blocks of MCL had been deallocated.

(ii) The Company and Tata Power Company Limited ('TPL') have joint control over Tubed Coal Mines Limited ('TCML'), a coal mining company. The coal blocks of TCML had been deallocated.

(b) Novelis Inc. (Novelis), a wholly-owned subsidiary of the Group directly or through its subsidiaries, is engaged in arrangements that are concluded to be joint operations details of which are as follows:

(i) Aluminum Norf GmbH is a joint venture investment between Novelis Deutschland GmbH, a subsidiary of Novelis, and Speira GmbH. Each of the parties to the joint venture holds a 50% interest in the equity, profits and losses, shareholder voting, management control, and rights to use the production capacity of the facility. Alunorf tolls aluminium and charges the respective partner a fee to cover the associated expenses.

Notes

forming part of the Consolidated Financial Statements

(ii) Logan Aluminum Inc ("Logan"), an aluminum rolling mill in Kentucky, is a joint operation between Novelis and Tri-Arrows Aluminum Inc. ("Tri-Arrows"). Logan processes metal exclusively received from Novelis and Tri-Arrows and charges the respective partner a fee to cover expenses. This indicates that both Novelis and Tri-Arrows get substantially all of the economic benefits from the assets of the joint arrangement. Logan is thinly capitalized and relies on the regular reimbursement of costs and expenses by Novelis and Tri-Arrows to fund its operations, indicating that Novelis and Tri-Arrows have an obligation for the liabilities of the arrangement. Other than these contractually required reimbursements, Novelis do not provide other material support to Logan. Logan's creditors do not have recourse to our general credit. Novelis has a 40% voting interest; however, our participating interest in operation ranges from greater than 50% to approximately 55% depending on output. Novelis has joint ability to make decisions regarding Logan's production operations and take Novelis share of production and associated costs.

(iii) Novelis Korea Ltd., a subsidiary of Novelis Inc., entered into definitive agreements with Kobe Steel Ltd. ("Kobe"), an unrelated party, under which Novelis Korea and Kobe Steel Ltd. will jointly own and operate Ulsan Aluminum, Ltd. (UAL), the joint arrangement. UAL is controlled by an equally represented Board of Directors in which neither entity has sole decision making ability regarding production operations or other significant decisions. Furthermore, neither entity has the ability to take the majority share of production or associated costs over the life of the joint venture. UAL currently produces flat rolled aluminium products exclusively for Novelis and Kobe. As of March 31, 2024, each of the parties to the joint arrangement holds a 50% interest in the equity, profits and losses, shareholder voting, management control and rights to use the production capacity of the facility.

(iv) Novelis Switzerland SA (Novelis Switzerland), a subsidiary of Novelis, entered into definitive agreements with Constellium Valais SA (Constellium), an unrelated party, under which Novelis Switzerland and Constellium will jointly own and operate AluInfra Services SA (AluInfra), the joint arrangement. Each of the parties to the joint arrangement holds a 50% interest in the equity, profits and losses, shareholder voting, management control and rights to use the production capacity of the facility.

1C. Equity Accounted Investments

Details of associates and joint ventures of the Group are set out below. The principal place of business is also the country of incorporation and the proportion of ownership interest is the same as the proportion of voting rights held. The Group's interest in these entities are accounted for using equity method in the consolidated financial statements.

S. No.	Name of Entity	Relationship	Principal place of business	Proportion of Ownership Interests (%)		Carrying Amount (₹ Crore)	
				31/03/2024	31/03/2023	31/03/2024	31/03/2023
1	Aditya Birla Science & Technology Company Pvt. Limited	Associate	India	49.00%	49.00%	41	36
2	Aditya Birla Renewables Subsidiary Limited	Associate	India	26.00%	26.00%	7	8
3	Aditya Birla Renewables Utkal Limited	Associate	India	26.00%	26.00%	2	2
4	Aditya Birla Renewables Solar Limited	Associate	India	26.00%	26.00%	42	27
5	Ayana Renewable Power Four Private Limited - (e)	Associate	India	26.00%	-	8	-
6	Deutsche Aluminum Verpachung Recycling GMBH - (f)	Associate	Germany	-	30.00%	-	-
7	France Aluminum Recyclage SPA. - (a)	Associate	France	20.00%	20.00%	-	-
8	Big Blue Technologies Inc. - (a) and (d)	Associate	USA	7.00%	-	4	-
9	MNH Shakti Limited	Joint venture	India	15.00%	15.00%	6	6
10	Hydromine Global Minerals (GMBH) Limited	Joint venture	British Virgin Islands	45.00%	45.00%	-	-
						110	79

(a) Associates of Novelis Inc.

(b) Shares of the above associates and joint ventures are not listed in any of the stock exchanges, hence no quoted price available for the entities.

(c) None of the above associates and joint ventures are material to the group, therefore the financial information i.e., assets, liabilities, revenue & expenses, etc about the entities are not provided. During the year share in profit/ (loss) in equity accounted investments (Net of tax) is ₹ 2 Crore (31/03/2023: ₹ 9 Crore)

(d) During the year, Novelis Inc. made an investment in Big Blue Technologies Inc. Novelis owns 281,088 shares of Series Seed Preferred Stock, with a 6.9% ownership interest amounting to ₹ 4 Crores ($0.5 million), as well as a seat on its five-person board of directors. Hence, Novelis has significant influence over Big Blue, the investee qualifies as an associate and the investment is subject to equity method accounting.

(e) During the year, the Company has entered in an agreement with Ayana Renewable Power Private Limited (ARPPL) to invest in Ayana Re-newable Power Four Private Limited (ARPFPL), a Special Purpose Vehicle. ARPFPL will set up a solar plant and a wind power plant having a capacity of 150 MW and 53 MW respectively which will cater 100 MW power requirement of one of its smelter. Refer Note 31(B)(c) for further details.

(f) Deutsche Aluminium Verpackung Recycling GmbH (Associate of Novelis Inc.) was dissolved on July 13, 2023.

1D. Interest in Trusts controlled by the Company accounted as Treasury Shares:

The following trusts have been considered as an extension of the Company and have been consolidated in the Standalone Financial Statements. The principal place of business is also their country of incorporation.

S. No.	Name of the Trust	Principal place of business	% of Holding	
			31/03/2024	31/03/2023
1	Trident Trust	India	#	#
2	Hindalco Employee Welfare Trust	India	#	#

Treasury Shares are held in Trusts whose sole beneficiary is Hindalco Industries Limited, Refer Note 10(b) (i) and (ii) for further details.

Notes

forming part of the Consolidated Financial Statements

1E. Financial information regarding subsidiaries, associates and joint ventures included in the consolidated financial statements are given below:

(a) For the year ended 31/03/2024:

(₹ Crore)

	Net Assets i.e. total Assets minus total Liabilities		Share in Profit/ (Loss)		Share in Other Comprehensive Income		Share in Total Comprehensive Income	
	As % of Consolidated Net Assets	Amount	As % of Consolidated Profit/ (Loss)	Amount	As % of Other Comprehensive Income	Amount	As % of Total Comprehensive Income	Amount
Parent:								
Hindalco Industries Limited	60.01%	63,707	36.41%	3,697	116.32%	2,245	49%	5,942
Subsidiaries:								
Indian:								
Minerals & Minerals Limited	0.02%	25	0.05%	5	0.00%	-	0.04%	5
Utkal Alumina International Limited	11.73%	12,454	16.45%	1,671	0.31%	6	13.88%	1,677
Utkal Alumina Social Welfare Foundation	0.00%	1	0.00%	-	0.00%	-	0.00%	-
Suvas Holdings Limited	0.03%	30	0.00%	-	0.00%	-	0.00%	-
Renuka Investments & Finance Limited	0.24%	259	0.01%	1	0.98%	19	0.17%	20
Renukeshwar Investments & Finance Limited	0.14%	150	0.07%	7	0.00%	-	0.06%	7
Dahej Harbour and Infrastructure Limited	0.12%	125	0.16%	16	0.00%	-	0.13%	16
Lucknow Finance Company Limited	0.02%	24	0.02%	2	0.00%	-	0.02%	2
Hindalco-Almex Aerospace Limited	0.10%	106	-0.01%	(1)	0.00%	-	-0.01%	(1)
East Coast Bauxite Mining Company Private Ltd	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Kosala Livelihood and Social Foundation	0.00%	3	-0.02%	(2)	0.00%	-	-0.02%	(2)
Birla Copper Asoj Private Limited	0.10%	109	0.22%	22	0.00%	-	0.18%	22
Hindalco Jana Seva Trust	0.00%	2	0.01%	1	0.00%	-	0.01%	1
Copper Jann Seva Trust	-0.01%	(13)	-0.04%	(4)	0.00%	-	-0.03%	(4)
Utkal Alumina Jana Seva Trust	0.00%	2	0.01%	1	0.00%	-	0.01%	1
Foreign:								
AV Minerals (Netherlands) N.V.	10.75%	11,415	-0.01%	(1)	8.55%	165	1.36%	164
Novelis Inc. (Consolidated) - (a)	41.86%	44,438	47.05%	4,778	-20.26%	(391)	36.30%	4,387
Hindalco Kabushiki Kaisha	0.00%	-	-0.01%	(1)	0.00%	-	-0.01%	(1)
Non-controlling Interest	0.01%	11	0.00%	-	0.00%	-	0.00%	-
Associates								
Indian:								
Aditya Birla Renewable Subsidiary Limited	0.01%	7	0.00%	-	0.00%	-	0.00%	-
Aditya Birla Renewable Utkal Limited	0.00%	2	0.00%	-	0.00%	-	0.00%	-
Aditya Birla Renewable Solar Limited	0.04%	42	-0.03%	(3)	0.00%	-	-0.02%	(3)
Aditya Birla Science and Technology Co. Pvt. Ltd.	0.04%	41	0.05%	5	0.00%	-	0.04%	5
Ayana Renewable Power Four Private Limited	0.01%	8	0.00%	-	0.00%	-	0.00%	-

(₹ Crore)

	Net Assets i.e. total Assets minus total Liabilities		Share in Profit/ (Loss)		Share in Other Comprehensive Income		Share in Total Comprehensive Income	
	As % of Consolidated Net Assets	Amount	As % of Consolidated Profit/ (Loss)	Amount	As % of Other Comprehensive Income	Amount	As % of Total Comprehensive Income	Amount
Joint Ventures								
Indian:								
MNH Shakti Limited	0.01%	6	0.00%	-	0.00%	-	0.00%	-
Foreign:								
Hydromine Global Minerals (GMBH) Limited	0.00%	-	0.00%	-	0.00%	-	0.00%	-
	125.24%	**132,954**	**100.38%**	**10,194**	**105.91%**	**2,044**	**101.27%**	**12,238**
Consolidation Adjustments	-25.24%	(26,797)	-0.38%	(39)	-5.91%	(114)	-1.27%	(153)
Total	**100.00%**	**106,157**	**100.00%**	**10,155**	**100.00%**	**1,930**	**100.00%**	**12,085**

(b) For the year ended 31/03/2023:

(₹ Crore)

	Net Assets i.e. total Assets minus total Liabilities		Share in Profit/ (Loss)		Share in Other Comprehensive Income		Share in Total Comprehensive Income	
	As % of Consolidated Net Assets	Amount	As % of Consolidated Profit/ (Loss)	Amount	As % of Other Comprehensive Income	Amount	As % of Total Comprehensive Income	Amount
Parent:								
Hindalco Industries Limited	61.69%	58,489	32.94%	3,326	22.82%	1,702	28.64%	5,028
Subsidiaries:								
Indian:								
Minerals & Minerals Limited	0.02%	19	0.06%	6	0.00%	-	0.03%	6
Utkal Alumina International Limited	11.37%	10,782	16.75%	1,691	-0.11%	(8)	9.59%	1,683
Utkal Alumina Social Welfare Foundation	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Suvas Holdings Limited	0.03%	30	0.01%	1	0.00%	-	0.01%	1
Renuka Investments & Finance Limited	0.25%	240	0.01%	1	0.05%	4	0.03%	5
Renukeshwar Investments & Finance Limited	0.15%	143	0.06%	6	0.00%	-	0.03%	6
Dahej Harbour and Infrastructure Limited	0.11%	109	0.14%	14	0.00%	-	0.08%	14
Lucknow Finance Company Limited	0.02%	22	0.02%	2	0.00%	-	0.01%	2
Hindalco-Almex Aerospace Limited	0.11%	107	0.01%	1	0.00%	-	0.01%	1
East Coast Bauxite Mining Company Private Ltd	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Kosala Livelihood and Social Foundation	0.00%	2	-0.02%	(2)	0.00%	-	-0.01%	(2)
Birla Copper Asoj Private Limited	0.09%	87	0.13%	13	0.00%	-	0.07%	13

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	Net Assets i.e. total Assets minus total Liabilities		Share in Profit/ (Loss)		Share in Other Comprehensive Income		Share in Total Comprehensive Income	
	As % of Consolidated Net Assets	Amount	As % of Consolidated Profit/ (Loss)	Amount	As % of Other Comprehensive Income	Amount	As % of Total Comprehensive Income	Amount
Hindalco Jana Seva Trust	0.00%	1	0.00%	-	0.00%	-	0.00%	-
Copper Jann Seva Trust	-0.01%	(8)	-0.02%	(2)	0.00%	-	-0.01%	(2)
Utkal Alumina Jana Seva Trust	0.00%	1	0.00%	-	0.00%	-	0.00%	-
Foreign:								
AV Minerals (Netherlands) N.V.	11.86%	11,250	2.25%	227	12.08%	901	6.42%	1,128
AV Metals Inc.	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Novelis Inc. (Consolidated) - (a)	43.14%	40,900	51.49%	5,199	76.78%	5,728	62.24%	10,927
Hindalco Do Brasil Industria Comercia de Alumina Ltda.	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Hindalco Kabushiki Kaisha	0.00%	-	-0.02%	(2)	0.00%	-	-0.01%	(2)
Non-controlling Interest	0.01%	11	0.00%	-	0.00%	-	0.00%	-
Associates								
Indian:								
Aditya Birla Renewable Subsidiary Limited	0.01%	8	0.00%	-	0.00%	-	0.00%	-
Aditya Birla Renewable Utkal Limited	0.00%	1	0.00%	-	0.00%	-	0.00%	-
Aditya Birla Renewable Solar Limited	0.03%	27	0.01%	1	0.00%	-	0.01%	1
Aditya Birla Science and Technology Co. Pvt. Ltd.	0.04%	36	0.08%	8	0.00%	-	0.05%	8
Joint Ventures								
Indian:								
MNH Shakti Limited	0.01%	6	0.00%	-	0.00%	-	0.00%	-
Foreign:								
Hydromine Global Minerals (GMBH) Limited	0.00%	-	0.00%	-	0.00%	-	0.00%	-
	128.95%	**122,263**	**103.89%**	**10,490**	**111.62%**	**8,327**	**107.18%**	**18,817**
Consolidation Adjustments	-28.95%	(27,446)	-3.89%	(393)	-11.62%	(867)	-7.18%	(1,260)
Total	**100.00%**	**94,817**	**100.00%**	**10,097**	**100.00%**	**7,460**	**100.00%**	**17,557**

(a) Novelis Inc. (Consolidated) includes its subsidiaries, associates and joint operations.

2. Basis of preparation and accounting policy information

The basis of preparation and the material accounting policies have been applied consistently to all the periods presented in the consolidated financial statements, except where newly issued accounting standard are initially adopted or a revision to an existing accounting standard requires change in the accounting policy hitherto in use.

Compliance of Ind AS

The consolidated financial statements comply in all material aspects with the Indian Accounting Standards ("Ind-AS") as prescribed under section 133 of the Companies Act 2013 ("the Act"), Companies (Indian Accounting Standards) Rules, 2015, other relevant provisions of the Act (including subsequent amendments) and other accounting principles generally accepted in India.

2A. Basis of preparation

The consolidated financial statements have been prepared on the going concern basis using accrual basis of accounting and under the historical cost convention except for following assets and liabilities which are measured at fair value:

- Derivative Financial Instruments; Refer Note 5D for accounting policy
- Certain financial assets and liabilities; Refer Note 5, 12, 18 and 35 for accounting policy
- Assets held for sale; Refer Note 9 for accounting policy
- Employee's defined benefit plan assets and liabilities; Refer Note 14(B)(I) for accounting policy
- Liability for cash based share-based payments; Refer Note 14(B)(II) for accounting policy
- Inventories those are designated in a fair value hedge relationship; Refer Note 8A and 5D for accounting policy
- Assets and liabilities designated as hedged items in fair value hedges that would otherwise be carried at amortised cost are adjusted to record changes in the fair values attributable to the risks that are being hedged in effective hedge accounting; Refer Note 5D for accounting policy.

Foreign currencies transactions are recorded by the Group entities at their respective functional currency using the exchange rates at the date when the transaction first qualifies for recognition. Monetary assets and liabilities (monetary items) denominated in foreign currency are translated at reporting date exchange rate.

Exchange differences resulting from settlement or translation of monetary items determined in foreign currency are recognised in the consolidated statement of profit and loss with the exception of the following:

- eligible exchange differences on foreign currency borrowings relating to qualifying assets under construction are included in the cost of those assets when they are regarded as an adjustment to interest costs;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see derivative note for hedge accounting policies); and
- exchange differences on monetary items for which settlement is neither planned nor likely to occur in the foreseeable future (therefore forming part of the net investment in the foreign operation), which are recognised initially in other comprehensive income and reclassified from equity to the consolidated statement of profit and loss on repayment of such monetary items.

Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rates at the date of initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. The gain or loss arising on translation of non-monetary items measured at fair value is treated in line with the recognition of gain or loss on change in fair value of the item (i.e. translation differences on items whose fair value gain or loss is recognised in OCI or profit or loss are also recognised in OCI or profit or loss, respectively).

Notes

forming part of the Consolidated Financial Statements

The Group has determined current and non-current classification of its assets and liabilities in the financial statements as per the Group's normal operating cycle, and other criteria set out in Schedule III of the Companies Act, 2013. Based on the nature of products and the time lag between the acquisition of assets for processing and their realisation in cash and cash equivalents, the Group has ascertained its normal operating cycle as 12 months for the purpose of current and non-current classification of its assets and liabilities.

Items included in the financial statements of each entity are measured using the currency of the primary economic enivronment in which that entity operates (functional currency). The consolidated financial statements are presented in Indian Rupees ("₹") which is the functional currency of the Parent. All values presented in Indian Rupees has been rounded off to nearest Rupees Crore (₹ 1 Crore = ₹ 10,000,000) without any decimal, unless otherwise stated. Amounts below rounding off convention or equal to zero are represented as "-" in the consolidated financial statements.

The Group determines materiality depending on the nature or magnitude of information, or both. Information is material if omitting, misstating or obscuring it could reasonably influence decisions made by the primary users, on the basis of those financial statements.

2B. Accounting policy information

The material accounting policies adopted in preparation of the consolidated financial statements has been disclosed in the pertinent note along with other information in italics. All accounting policies has been consistently applied to all the period presented in the consolidated financial statements unless otherwise stated.

Principles of consolidation

The consolidated financial statement comprises the financial statements of the parent and entities controlled by the parent i.e. subsidiaries, Jointly controlled operations and trusts. It also includes the Group's share of profits, net assets and retained post acquisition reserves of joint arrangements and associates that are consolidated using the equity or proportionate method of consolidation, as applicable.

Subsidiaries

Subsidiaries are the entities (including structured and unstructured entities) over which the Group has control. The Group controls an entity when the group is exposed to or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the relevant activities of the entity. Consolidation of the subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains the control until the date the Group ceases to control the subsidiary.

The Group combines the financial statements of the parent and its subsidiaries line by line adding together like items of assets, liabilities, equity, income and expenses. Intra-group transactions, balances and unrealised profits on transactions between group companies are eliminated in full. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred assets. Appropriate adjustments for deferred taxes are made for temporary differences that arise from the elimination of unrealised profits and losses from intra-group transactions or undistributed earnings of Group's entity included in consolidated statement of profit and loss, if any.

The consolidated financial statements are prepared using uniform accounting policies for like transactions and other events in similar circumstances.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. This results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognised within equity attributable to owners of the parent.

Interest in Associates and Joint Ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies, generally accompanying a shareholding between 20% and 50% of the voting rights.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The Group's interest in its associates or joint ventures are accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. Under equity method, the investment in an associate or a joint venture is initially recognised at cost and adjusted thereafter to recognise the changes in the Group's share of net assets of the associate or joint venture since the acquisition date. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as Goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment is recognised in equity as Capital Reserve in the period in which the investment is acquired.

Interest in Joint Operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

When a Group entity undertakes its activities under joint operations, the Group entity as a joint operator recognises in relation to its interest in a joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

Translation of foreign operations

The results and financial positions of the foreign operations that have functional currency other than INR are translated in INR, as follows:

- assets, liabilities and equity (except for retained earnings) are translated at closing rate of the balance sheet date. Retained earnings to be carried at historical cost;
- income and expesnes are translated at period average exchange rate;
- all resulting exchange difference are recognised in OCI and accumulated in equity.
- accumulated exchange differences arising from translation and attributable to non-controlling interests are allocated to, and recognised as part of, non-controlling interests in the Consolidated Balance Sheet.

Notes

forming part of the Consolidated Financial Statements

On the disposal of a foreign operation all of the exchange differences accumulated in OCI relating to that particular foreign operation attributable to the owners of the Group is reclassified in the consolidated statement of profit and loss.

In addition, in relation to a partial disposal of a subsidiary that includes a foreign operation that does not result in the Group losing control over the subsidiary, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in the consolidated statement of profit and loss. For partial disposals of investment in associates or joint arrangements that do not result in the Group losing significant influence or joint control, the proportionate share of the accumulated exchange differences is reclassified in the consolidated statement of profit and loss.

Any goodwill and fair value adjustments arising in business combinations or acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the exchange rates prevailing at the reporting date and resulting exchange differences are recognised in other comprehensive income.

The Group combines the assets, liabilities, revenues and expenses relating to its interest in a joint operation with the particular assets, liabilities, revenues and expenses of its own.

2C. Recent Accounting Pronouncements

(a) New and amended standards adopted by the Group

The Ministry of Corporate Affairs had vide notification dated March 31, 2023 notified Companies (Indian Accounting Standards) Amendment Rules, 2023 (the 'Rules') which amends certain accounting standards, and are effective April 1, 2023.

The rules predominantly amend

- Disclosure of accouting policies - amendment to Ind AS 1
- Definition of accounting estimates - amendment to Ind AS 8
- Deferred tax related to assets and liabilities arising from single transaction - amendement to Ind AS 12.

The other amendments to Ind AS notified by these rules are primarily in the nature of clarifications.

These amendments do not have a material impact on the Group in the current or future reporting periods and on foreseeable future transactions.

(b) New and amended standards issued but not effective

There are no standards that are notified and not yet effective as on the date

3A. Property, plant and equipment

Property, plant and equipment held for use in the production or/and supply of goods or services, or for administrative purposes, are stated in the consolidated balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses except for freehold land (other than freehold land used for mining) which is carried at historical cost.

The present value of obligatory decommissioning cost related to assets are included in the initial cost of such assets. Cost may also include effective portion on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment transferred from hedge reserve as basis adjustment.

Subsequent expenditure on major maintenance or repairs includes the cost of the replacement of parts of assets and overhaul costs. Where an asset or part of an asset is replaced and it is probable that future economic benefits associated with the item will be available to the Group, the expenditure is capitalised and the carrying amount of the item replaced is derecognised. Similarly, overhaul costs associated with major maintenance which can be measured reliably are capitalised as a separate component and depreciated over the remaining useful life of the underlying asset where it is probable that future economic benefits will be available and any remaining carrying amounts of the cost of previous overhauls are derecognised. All other costs are charged to consolidated statement of profit and loss during the reporting period in which they are incurred.

The Group based on the technical assessment made by the technical expert/ management estimate, depriciates certain items of building, plant and equipments over the estimated useful lives which are different from the useful life prescribed in Schedule II to the Companies Act, 2013. The management believes that these estimated useful lives are realisitic and reflect fair approximation of the period over which the assets are likely to be used.

The Group reviews the estimated residual values and expected useful lives of assets at least annually. In particular, the Group considers the impact of the health, safety and environmental legislation in its assessment of expected usefule lives and estimated residual values. Furthermore, the Group considers environment-related matters, including physical and transition risks. Specifically, the Group determines whether environment-related legislation and regulations might impact either the useful lives or residual values

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Items of Property, Plant and Equipments	Useful life*
Freehold Land	Infinite $
Leasehold Improvements	7 - 90 Years
Buildings	3 - 60 Years
Plant and Machinery	2 - 40 Years
Vehicles and Aircraft	2 - 25 Years
Railway Wagons	15 Years
Railway Sidings	15 Years
Furniture and Fixtures	3 - 10 Years
Office Equipment	2 - 25 Years

$ Freehold land used for mining which is depreciated over 8 - 30 years.

* Cost incurred subsequent to capitalisation, accounted as a separate component, is depreciated over the remaining useful life of the underlying asset.

The Group accounting policy on depreciation and impairment of non-current assets is described in note 3G and 3H, respectively.

Notes

forming part of the Consolidated Financial Statements

The change in the carrying value of Property, plant and equipment are given below:

(₹ Crore)

Particulars	COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2023	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 01/04/2023	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Freehold Land	3,405	393	(6)	5	3,797	194	4	-	-	2	200	3,597	3,211
Leasehold Improvements	628	4	-	7	639	277	23	-	-	3	303	336	351
Buildings	27,005	950	(29)	141	28,067	9,969	955	62	(8)	77	11,055	17,012	17,036
Plant and Machinery	101,298	5,980	(1,316)	431	106,393	47,920	4,883	269	(986)	93	52,179	54,214	53,378
Vehicles and Aircraft	833	221	(26)	3	1,031	517	97	-	(12)	4	606	425	316
Railway Wagons	407	5	-	-	412	201	23	-	-	-	224	188	206
Railway Sidings	775	1	(2)	-	774	408	43	-	(1)	-	450	324	367
Furniture and Fixtures	1,590	157	(48)	2	1,701	1,047	119	-	(48)	-	1,118	583	543
Office Equipment	1,268	167	(17)	9	1,427	827	137	-	(15)	6	955	472	441
Total	**137,209**	**7,878**	**(1,444)**	**598**	**144,241**	**61,360**	**6,284**	**331**	**(1,070)**	**185**	**67,090**	**77,151**	**75,849**

(₹ Crore)

Particulars	COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2022	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 01/04/2022	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Freehold Land	3,253	113	(94)	133	3,405	177	4	-	-	13	194	3,211	3,076
Leasehold Improvements	481	153	(38)	32	628	240	21	-	(3)	19	277	351	241
Buildings	25,081	1,072	(133)	985	27,005	8,746	953	4	(128)	394	9,969	17,036	16,335
Plant and Machinery	95,508	3,709	(986)	3,067	101,298	42,347	4,554	135	(892)	1,776	47,920	53,378	53,161
Vehicles and Aircraft	762	84	(35)	22	833	465	65	-	(28)	15	517	316	297
Railway Wagons	356	51	-	-	407	179	22	-	-	-	201	206	177
Railway Sidings	773	2	-	-	775	365	43	-	-	-	408	367	408
Furniture and Fixtures	1,389	171	(33)	63	1,590	932	104	-	(30)	41	1,047	543	457
Office Equipment	1,149	126	(66)	59	1,268	754	87	-	(55)	41	827	441	395
Total	**128,752**	**5,481**	**(1,385)**	**4,361**	**137,209**	**54,205**	**5,853**	**139**	**(1,136)**	**2,299**	**61,360**	**75,849**	**74,547**

(a) The Group's share in jointly owned assets has been grouped together with the relevant class of property, plant and equipment. The cost and net carrying amounts included in relevant class of assets are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Original Cost	Net Carrying Amount	Original Cost	Net Carrying Amount
Freehold Land	52	52	52	52
Buildings	133	118	54	40
Plant and Machinery	9	5	6	1
Furniture and Fixtures	31	19	29	19
Office Equipment	25	18	8	1

(b) Refer Note 12A(b), for details of Property, Plant and Equipments (except Jointly owned assets) pledged and hypothecated against borrowings.

(c) The Group has not revalued its Property, Plant and Equipment during the current and previous year.

3B. Capital Work-in-Progress

Capital work-in-progress comprises of tangible items in the course of construction for production or/and supply of goods or services or administrative purposes are carried at cost, less any accumulated impairment loss. At the point when an asset is capable of operating at management's intended use, the cost of construction is transferred to the appropriate category of property, plant and equipment. Costs associated with the commissioning of an asset are capitalised.

Temporarily suspended projects do not include those projects where temporary suspension is a necessary part of the process of getting an asset ready for its intended use.

The changes in carrying value of Capital Work-in-Progress are given below:

(₹ Crore)

	As at 01/04/2023	Addition	(Impairment)/ Reversal	Disposal/ Adjustment	Capitalised	Exchange Difference	As at 31/03/2024
Capital Work-in-Progress*	7,340	14,319	(4)	(3)	(7,098)	89	14,643
	7,340	**14,319**	**(4)**	**(3)**	**(7,098)**	**89**	**14,643**

*Includes ₹ 54 Crore (31/03/2023 ₹ 55 Crore) towards cost of land, other development costs including pre-operative expenses, incurred at one of the mines which is surrendered to Ministry of coal during the current year. The incurred amount will be reimbursed by the prospective allottee to the Group in due course.

(₹ Crore)

	As at 01/04/2022	Addition	(Impairment)/ Reversal	Disposal/ Adjustment	Capitalised	Exchange Difference	As at 31/03/2023
Capital Work-in-Progress	4,726	7,432	(65)	-	(5,011)	258	7,340
	4,726	**7,432**	**(65)**	**-**	**(5,011)**	**258**	**7,340**

(a) Following amounts are the Group's share in Capital Work-in-Progress of jointly owned assets and are included in Capital Work-in-Progress which is given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Capital Work-in-Progress	73	135

(b) Capital Work-in-Progress comprise of various projects and expansions spread over the Group. Major Capital Work-in-Progress are related to following Segments :

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Novelis	10,414	4,202
Aluminium Upstream	1,903	1,608
Aluminium Downstream	1,968	1,155
Copper	281	228
Others - Not Allocable to segment	77	147
	14,643	**7,340**

Notes

forming part of the Consolidated Financial Statements

(c) **Capital Work-in-Progress ageing schedule as at 31/03/2024:**

(₹ Crore)

Particulars	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	7,602	4,712	1,667	413	14,394
Projects temporarily suspended	7	107	-	135	249
Total	**7,609**	**4,819**	**1,667**	**548**	**14,643**

Capital Work-in-Progress ageing schedule as at 31/03/2023:

(₹ Crore)

Particulars	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	3,935	2,171	497	499	7,102
Projects temporarily suspended	104	1	-	133	238
Total	**4,039**	**2,172**	**497**	**632**	**7,340**

(d) **Capital Work-in-Progress completion schedule for projects, whose completion is overdue or has exceeded its cost compared to its original plan as at 31/03/2024 are given below:**

(₹ Crore)

Projects	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Project in Progress					
Strategic Projects	50	-	-	-	50
Environmental and Occupational Health and Safety Projects	161	-	-	-	161
Project temporarily suspended					
Strategic Projects	-	-	-	79	79
Environmental and Occupational Health and Safety Projects	-	-	-	-	-
Total	**211**	**-**	**-**	**79**	**290**

Capital Work-in-Progress completion schedule for projects, whose completion is overdue or has exceeded its cost compared to its original plan as at 31/03/2023 are given below:

(₹ Crore)

Projects	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Project in Progress					
Strategic Projects	226	5	-	-	231
Environmental and Occupational Health and Safety Projects	211	-	-	-	211
Project temporarily suspended					
Strategic Projects	-	-	4	73	77
Environmental and Occupational Health and Safety Projects	-	-	-	-	-
Total	**437**	**5**	**4**	**73**	**519**

(e) Refer Note 31(B)(a) for capital expenditures contracted but not incurred.

(f) During the year, interest capitalised on qualifying assets is ₹ 316 Crore (31/03/2023: ₹ 105 Crore), Refer Note 22(d) for further details.

(g) The Group has tested the carrying value of CWIP for impairment as at reporting date and recorded impairment of ₹ 4 Crore (31/03/2023: ₹ 65 Crore), Refer Note 3H for for further details.

(h) The Group have broken ground on a fully integrated, greenfield rolling and recycling facility in Bay Minette, Alabama, which Group expect to have an annual rolled aluminum production capacity of 600 kt. Group expect the total project capital cost for the Bay Minette plant to be approximately ₹ 34,181 Crore ($4.1 Billion).

3C. Right of Use Assets

The Group assesses whether a contract is or contains a lease, at inception of the contract. The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For short term leases, the Group recognises the lease payments as other expenses on a straight-line basis over the lease term, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed. Contingent and variable rentals are recognized as expense in the periods in which they are incurred.

The Right of Use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

For the certain class of assets, the Group allocates lease or non-lease components on the basis of their relative stand-alone prices while assessing a contract at its inception or on reassessment.

The Group tests Impairment of right-of-use asset and accounts for any identified impairment loss as per its accounting policy on 'Property, Plant and Equipment'.

Extension and termination options are included in many of the leases. In determining the lease term, the management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option.

When the Group is an intermediate lessor, it accounts for the head lease and sublease as two separate contracts. The sublease is classified as finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease.

Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

When a contract includes lease and non-lease components, the Group applies Ind AS 115, Revenue from Contracts with Customers to allocate the consideration under the contract to each component.

The Group accounting policy on depreciation and impairment of non current assets is described in note 3G and 3H, respectively.

Notes

forming part of the Consolidated Financial Statements

The change in the carrying value of Right of Use assets are given below:

(₹ Crore)

Particulars	COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2023	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 01/04/2023	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Leasehold Land	1,384	2	(63)	4	1,327	142	46	-	(39)	-	149	1,178	1,242
Buildings	948	137	(47)	13	1,051	346	153	-	(25)	5	479	572	602
Stadium Suite	47	-	-	1	48	19	3	-	-	-	22	26	28
Plant and Machinery	507	30	(19)	1	519	80	55	-	(16)	(6)	113	406	427
Vehicles and Aircraft	591	218	(219)	18	608	296	146	-	(126)	7	323	285	295
Boats	59	-	-	-	59	46	12	-	-	-	58	1	13
Railway Wagons	141	-	-	3	144	81	4	-	-	1	86	58	60
Railway Sidings	2	-	-	-	2	-	-	-	-	-	-	2	2
Waterfront	1	3	-	-	4	-	-	-	-	-	-	4	1
Furniture and Fixtures	20	-	(4)	-	16	14	1	-	(4)	-	11	5	6
Office Equipment	33	23	-	12	68	28	31	-	-	(1)	58	10	5
Total	**3,733**	**413**	**(352)**	**52**	**3,846**	**1,052**	**451**	**-**	**(210)**	**6**	**1,299**	**2,547**	**2,681**

(₹ Crore)

Particulars	COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2022	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 01/04/2022	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Leasehold Land	1,181	195	(3)	11	1,384	100	45	-	(3)	-	142	1,242	1,081
Buildings	642	350	(86)	42	948	262	121	16	(69)	16	346	602	380
Stadium Suite	43	-	-	4	47	12	3	-	-	4	19	28	31
Plant and Machinery	204	384	(86)	5	507	114	52	-	(84)	(2)	80	427	90
Vehicles and Aircraft	421	210	(62)	22	591	191	107	-	(14)	12	296	295	230
Boats	59	-	-	-	59	34	12	-	-	-	46	13	25
Railway Wagons	135	3	-	3	141	73	6	-	-	2	81	60	62
Railway Sidings	2	-	-	-	2	-	-	-	-	-	-	2	2
Waterfront	1	-	-	-	1	-	-	-	-	-	-	1	1
Furniture and Fixtures	33	-	(15)	2	20	26	1	-	(14)	1	14	6	7
Office Equipment	46	6	(22)	3	33	32	12	-	(17)	1	28	5	14
Total	**2,767**	**1,148**	**(274)**	**92**	**3,733**	**844**	**359**	**16**	**(201)**	**34**	**1,052**	**2,681**	**1,923**

3D. Lease Liabilities

The lease payments that are not paid at the commencement date are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Group uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk and makes adjustments specific to the lease, e.g. term, security etc.

Lease payments included in the measurement of the lease liability comprise:

- *Fixed lease payments (including in-substance fixed payments) payable during the lease term and under reasonably certain extension options, less any lease incentives;*
- *Variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;*
- *The amount expected to be payable by the lessee under residual value guarantees;*
- *The exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and*
- *Payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.*

Lease payments are allocated between principal and finance cost. The finance cost is charged to Consolidated statement of profit and loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) to reflect any reassessment, lease modification or revised in-substance fixed lease payments.

Lease Liabilities recognised against Right of Use Assets are as follows:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Lease Liabilities against Right of Use Assets	1,431	424	1,491	465
	1,431	424	1,491	465

(a) The total cash outflows for the leases for the year was ₹ 500 Crore (31/03/2023 ₹ 512 Crore).

(b) Extension and termination options are included in a number of property and equipment leases across the Group. These are used to maximize operational flexibility in terms of managing the assets used in the Group's operations. The majority of extension and termination options held are exercisable only by the Group and not by the respective Lessor.

Notes

forming part of the Consolidated Financial Statements

3E. Investment properties

Investment properties (held to earn rentals or for capital appreciation or both) are stated in the consolidated balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Transfer to, or from, investment property is done at the carrying amount of the property.

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Items of Investment Properties	Useful life
Freehold Land	Infinite
Buildings	60 Years

The Group accounting policy on depreciation and impairment of non current assets is described in note 3G and 3H, respectively.

The change in the carrying value of investment properties are given below:

(₹ Crore)

Particulars	COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2023	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 01/04/2023	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Freehold Land	1	17	-	-	18	-	-	-	-	-	-	18	1
Buildings*	34	-	10	-	44	15	1	-	-	-	16	28	19
Total	**35**	**17**	**10**	**-**	**62**	**15**	**1**	**-**	**-**	**-**	**16**	**46**	**20**

* During the current year, certain properties which were occupied by the Group and classified as Property, Plant and Equipments (carrying value ₹ 10 Crore) are now given on lease and accordingly moved to Investment Properties.

(₹ Crore)

Particulars	COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2022	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 01/04/2022	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Freehold Land	1	-	-	-	1	-	-	-	-	-	-	1	1
Buildings	34	-	-	-	34	14	1	-	-	-	15	19	20
Total	**35**	**-**	**-**	**-**	**35**	**14**	**1**	**-**	**-**	**-**	**15**	**20**	**21**

(a) Amount recognised in Statement of Consolidated Profit and Loss for Investment Properties are as under:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Rental Income	8	6
Less: Direct operating expenses (including repair and maintenance) on properties generating rental income	(1)	(1)
Profit/ (Loss) from Investment Properties before Depreciation	7	5

(b) The Group has no contractual obligations to purchase, construct or develop investment properties or for repairs, maintenance and enhancements. There are no restrictions on the realisability of investment properties or the remittance of income and proceeds of disposal on the Group.

(c) Fair value of Investment properties:

The fair value of the Group's investment properties as at March 31, 2024 and March 31, 2023 have been arrived on the basis of valuation carried out by an external independent valuer who is registered under Rule 2 of the Companies (Registered Valuers and Valuation) Rules, 2017.

The fair value measurement for all the investments properties has been categorised as Level 2 based on the inputs to the valuation technique used. Considering the type of the assets, market approach (sales comparable method is adopted) to estimate the fair value of the subject properties. Fair value of investment properties are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Freehold land	20	4
Buildings	118	103
	138	**107**

(d) Minimum Lease payments receivable on leases on various properties (including sub-leases) are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Within 1 Year	19	18
Between 1 Year and 2 Years	10	19
Between 2 Year and 3 Years	6	10
Between 3 Year and 4 Years	4	6
Between 4 Year and 5 Years	3	4
Later than 5 Years	2	3
	44	**60**

3F. Other intangible assets and intangible assets under development

Intangible assets acquired separately

Intangible assets acquired are reported at cost less accumulated amortization and accumulated impairment losses.

Mineral reserves, resources and rights (Mining rights)

Mineral reserves, resources and rights (together referred to as 'mining rights') which can be reasonably valued, are recognised in the assessment of fair values on acquisition. Mining rights also include Stripping cost.

Stripping cost

Stripping costs incurred during the mining production phase are allocated between cost of inventory produced and the existing mine asset. The stripping ratio, as approved by the regulatory authority, for the life of the mine is obtained by dividing the estimated quantity of overburden by the estimated quantity of mineable coal / bauxite reserve to be extracted over the life of the mine. This ratio is periodically reviewed and changes, if any, are accounted for prospectively.

Stripping costs are allocated and included as a component of the mine asset when they represent significantly improved access to ore, provided all the following conditions are met:

- *it is probable that the future economic benefit associated with the stripping activity will be realised;*
- *the component of the ore body for which access has been improved can be identified; and*
- *the costs relating to the stripping activity associated with the improved access can be reliably measured.*

Notes

forming part of the Consolidated Financial Statements

The overburden removal costs are included in Mining Rights under Intangible assets and amortised based on stripping ratio on the quantity of coal / bauxite excavated.

Useful life of items of Intangible Assets and their remaining useful lives are given below:

	Useful life (Years)
Mining Rights	8 - 41
Trade Name	3 - 20
Technology and Software	3 - 10
Customer related Intangible Assets	20 - 22
Favourable Contracts	3
Carbon Emission	Refer note 3G Depreciation and amortization expense for further details

The Group accounting policy on amortization and impairment of non current assets is described in note 3G and 3H, respectively.

Other intangible assets

The change in the carrying value of intangible assets are given below:

(₹ Crore)

Particulars	COST					ACCUMULATED AMORTIZATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2023	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 01/04/2023	Amortization	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Mining Rights (including Stripping Cost)	994	88	-	-	1,082	544	81	-	-	-	625	457	450
Trade Name	1,276	7	(7)	18	1,294	1,036	61	-	(2)	15	1,110	184	240
Technology and Software	5,384	442	(21)	58	5,863	4,493	309	-	(16)	53	4,839	1,024	891
Customer related Intangible Assets	7,011	-	-	99	7,110	3,323	331	-	-	45	3,699	3,411	3,688
Favourable Contracts	6	-	-	-	6	1	3	-	-	-	4	2	5
Carbon Emission Rights	1,057	-	(159)	15	913	-	-	-	-	-	-	913	1,057
Total	**15,728**	**537**	**(187)**	**190**	**16,268**	**9,397**	**785**	**-**	**(18)**	**113**	**10,277**	**5,991**	**6,331**

(₹ Crore)

Particulars	COST					ACCUMULATED AMORTIZATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at 01/04/2022	Additions	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 01/04/2022	Amortization	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Mining Rights (including Stripping Cost)	864	130	-	-	994	459	85	-	-	-	544	450	405
Trade Name	1,180	-	-	96	1,276	889	73	-	-	74	1,036	240	291
Technology and Software	4,703	437	(83)	327	5,384	3,844	413	-	(77)	313	4,493	891	859
Customer related Intangible Assets	6,499	-	-	512	7,011	2,782	301	-	1	239	3,323	3,688	3,717
Favourable Contracts	6	-	-	-	6	-	1	-	-	-	1	5	6
Carbon Emission Rights	1,140	1	(174)	90	1,057	-	-	-	-	-	-	1,057	1,140
Total	**14,392**	**568**	**(257)**	**1,025**	**15,728**	**7,974**	**873**	**-**	**(76)**	**626**	**9,397**	**6,331**	**6,418**

(a) Addition in Mining Rights includes ₹ 79 Crore (31/03/2023: ₹ 86 Crore) and amortization expense includes ₹ 64 Crore (31/03/2023: ₹ 67 Crore) towards stripping activity assets.

(b) The residual value and useful life of intangible assets are reviewed, and adjusted if appropriate, at the end of each reporting period.

(c) The Group has performed an assessment of its Intangible Assets for possible triggering events or circumstances for an indication of impairment and has concluded that there were no triggering events or circumstances that would indicate the Intangible Assets are impaired.

(d) Remaining amortization period of Mining rights, Technology and Software and Customer related Intangible assets ranges between 1 -32 years.

Intangible Assets under Development

The changes in carrying value of Intangible Assets under Development are given below:

(₹ Crore)

	As at 01/04/2023	Addition	Impairment/ (Reversal)	Disposal/ Adjustment	Capitalised	Exchange Difference	As at 31/03/2024
Intangible Assets under Development	360	337	-	(13)	(464)	4	224
	360	**337**	**-**	**(13)**	**(464)**	**4**	**224**

(₹ Crore)

	As at 01/04/2022	Addition	Impairment/ (Reversal)	Disposal/ Adjustment	Capitalised	Exchange Difference	As at 31/03/2023
Intangible Assets under Development	218	416	-	-	(293)	19	360
	218	**416**	**-**	**-**	**(293)**	**19**	**360**

(a) **Intangible asset under development ageing schedule as at 31/03/2024** (₹ Crore)

Particulars	Amount in Intangible asset under development for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	60	136	28	-	224
Projects temporarily suspended	-	-	-	-	-
Total	**60**	**136**	**28**	**-**	**224**

Intangible asset under development ageing schedule as at 31/03/2023 (₹ Crore)

Particulars	Particulars Amount in Intangible asset under development for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	208	129	21	2	360
Projects temporarily suspended	-	-	-	-	-
Total	**208**	**129**	**21**	**2**	**360**

Notes

forming part of the Consolidated Financial Statements

(b) There are no projects which completion are overdue or has exceeded its cost compared to its original plan in current year. Previous year details are given below:

(₹ Crore)

Projects	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Project in Progress					
Strategic Projects	3	-	-	-	3
Environmental and Occupational Health and Safety Projects	-	-	-	-	-
Project temporarily suspended					
Strategic Projects	-	-	-	-	-
Environmental and Occupational Health and Safety Projects	-	-	-	-	-
Total	**3**	**-**	**-**	**-**	**3**

(c) Intangible asset under development comprise of various projects and expansions spread over the Group. Major Intangible asset under development are related to following Segments:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Novelis	211	339
Aluminium Upstream	11	10
Aluminium Downstream	2	1
Copper	-	-
Others - Not Allocable to segment	-	10
	224	**360**

3G. Depreciation and amortization expense

Property plant and equipments

Depreciation is charged so as to write off the cost or value of assets, net off their residual values, over their estimated useful lives. Depreciation is recorded using the straight line basis. The estimated useful lives and residual values are reviewed at each year end, with the effect of any changes in estimate accounted for on a prospective basis. Each component of an item of property, plant and equipment with a cost that is significant in relation to the total cost of that item is depreciated separately if its useful life differs from the others components of the asset.

Depreciation commences when the assets are ready for their intended use. Depreciated assets and accumulated depreciation accounts are retained fully until they are removed/retired from active use.

Leasehold improvements are depreciated over the shorter of their useful life or the lease term, unless the entity expects to use the assets beyond the lease term.

For our indian operations, the useful life of the items of Property, Plant and Equipment is based on the technical assessment by management for the current and comparative period which is in line with the useful life precribed in Schedule II of the Companies Act, 2013.

Right of Use Assets

Right of Use assets are depreciated over the shorter period of the lease term and useful life of the underlying asset using straight line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life. The depreciation starts at the commencement date of the lease.

Investment properties

Depreciation is charged on a straight line basis over their estimated useful lives.

Intangible assets

Amortization is charged on a straight line basis over their estimated useful lives other than 'Mining Rights' and 'Carbon Emission Rights'. The estimated useful life and amortization method are reviewed at the end of each annual reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Mining Rights

Exploitable mineral rights are amortised using the unit of production basis over the commercially recoverable reserves. Commercially recoverable reserves are proved and probable reserves. Mineral resources are included in amortization calculations where there is a high degree of confidence that they will be extracted in an economic manner. Changes in the commercial recoverable reserves affecting unit of production calculations are dealt with prospectively over the revised remaining reserves.

Carbon Emission

Carbon emission rights are not amortised as their carrying value equals their residual value and therefore the depreciable base is zero, as their value is constant until delivery to the authorities. Emission allowances are subject to impairment test. Please refer note 28 for further details.

Amount of asset class-wise depreciation and amortization are setout below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Depreciation on Property, Plant and Equipment, Refer Note 3A	6,284	5,853
Depreciation on Right of Use Assets, Refer Note 3C	451	359
Depreciation on Investment Properties, Refer Note 3E	1	1
Amortization on Intangible Assets, Refer Note 3F	785	873
	7,521	**7,086**

3H. Impairment loss/ (reversal) of non-current assets (net)

Goodwill and intangible assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Non current assets other than goodwill are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash inflows which are largely independent of the cash inflows from other assets or groups of assets (cash- generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

The Group accounting policy on impairment of Goodwill is described in note 4.

Notes

forming part of the Consolidated Financial Statements

Critical accounting judgement and key sources of estimation uncertainty

The Group assesses conditions that could cause an asset or a Cash Generating Unit (CGU) to become impaired and to test recoverability of potentially impaired assets. These conditions include changes resulting from market and economic environment, including internal and external factors such as the Group's market capitalization, significant changes in the Group's planned use of the assets or a significant adverse change in the expected prices, sales volumes or raw material cost. The identification of CGUs involves judgment, including assessment of where active markets exist, and the level of interdependency of cash inflows. CGU is usually the individual plant, unless the asset or asset group is an integral part of a value chain where no independent prices for the intermediate products exist, a group of plants is combined and managed to serve a common market, or where circumstances otherwise indicate significant interdependencies.

Determination of the recoverable amount involves management estimates on highly uncertain matters, such as commodity prices and their impact on markets and prices for upgraded products, demand for products, inflation, operating expenses and tax and legal environment. The Group uses internal business plans, quoted market prices and the Group's best estimate of commodity prices, currency rates, discount rates and other relevant information. A detailed forecast is developed for a period of three to five years with projections thereafter.

The details of non-current assets class-wise impairment/(reversal) are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Impairment Loss/ (Reversal) on Property, Plant and Equipment - (a), (b), (f)	331	139
Impairment Loss/ (Reversal) on Capital Work-in-Progress - (a), (d)	4	65
Impairment Loss/ (Reversal) on Right of Use assets - (g)	-	16
Impairment Loss/ (Reversal) on Assets/ Disposal Group Held for Sale - (c), (e)	25	(12)
	360	**208**

(a) During year ended 31/03/2024, the Group announced the impending closure of its Clayton facility located at New Jersey, United States of America. As a result, the Group has recognized ₹ 177 Crore towards impairment of its Property, plant and equipments and ₹ 4 Crore towards impairment in Capital Work-in-Progress during the current year, Refer Note 3A and 3B.

(b) On March 15, 2024, the Group announced the impending closure of its Buckhannon facility located at West Virginia, United States of America. Operations will cease on June 14, 2024, followed by a decommissioning period before the facility is permanently closed in September 2024. As a result, the Group has recorded ₹ 154 Crore towards impairment in Property, Plant and Equipment, Refer Note 3A.

(c) During year ended 31/03/2024, the Group had impaired certain classified as assets held for sale i.e. hydroelectric power generation facilities in South America, amounting to ₹ 25 Crore. Refer Note 9.

(d) During year ended 31/03/2023, the Group had impaired certain Plant and Equipments under construction of which was suspended due to various environment and safety reasons amounting to ₹ 65 Crore.

(e) During year ended 31/03/2023, the Group had reversed the impairment loss on certain equipments and accessories classified as asset held for sale that were impaired earlier on determination of its realizable value (Net of cost to sales) amounting to ₹ 12 Crore, Refer Note 9.

(f) During year ended 31/03/2023, the Group had partially closed Richmond plant due to it's operational issues. Due to significant reductions in demand driven by looming recession and other macro reasons, the Group has impaired its Property, Plant and Equipment amounting to ₹ 139 Crore ($17.3 million), Refer Note 3A.

(g) During year ended 31/03/2023, the Group had partially subleased one of its Corporate office and assessed for impairment with reliable estimates of sublease cash flows. Impairment was accounted due to this sublease transaction amounting to ₹ 16 Crore, Refer Note 3C.

4. Goodwill

Goodwill represents the excess of the purchase price over the fair value of the identifiable net assets of acquired companies. Goodwill arising out of business combination is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units ("CGU") expected to benefit from the synergies of the combination.

Goodwill is not amortised, instead it is tested for impairment annually, or more frequently if indication of impairment exists. If the recoverable amount of the cash-generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognised for goodwill is not reversed in a subsequent period.

On disposal of a subsidiary the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Critical accounting judgement and key sources of estimation uncertainty

The recoverable amount is determined based on value in use or fair value less cost to sell calculations which require the use of assumptions as directly observable market prices generally do not exist for the Group's assets. However, fair value may be estimated based on recent transactions on comparable assets, internal models used by the Group for transactions involving the same type of assets or other relevant information. Calculation of value in use is a discounted cash flow calculation based on continued use of the assets in its present condition, excluding potential exploitation of improvement or expansion potential.

The changes in the carrying value are given below:

(₹ Crore)

Particulars	COST					IMPAIRMENT				NET CARRYING AMOUNT
	As at 01/04/2023	Additions	Additions due to acquisition	Exchange differences	As at 31/03/2024	As at 01/04/2023	Impairment/ (Reversal)	Exchange differences	As at 31/03/2024	
Goodwill	25,745	-	-	330	26,075	-	-	-	-	26,075

(₹ Crore)

Particulars	COST					IMPAIRMENT				NET CARRYING AMOUNT
	As at 01/04/2022	Additions	Additions due to acquisition	Exchange differences	As at 31/03/2023	As at 01/04/2022	Impairment/ (Reversal)	Exchange differences	As at 31/03/2023	
Goodwill	23,965	-	-	1,780	25,745	-	-	-	-	25,745

Notes

forming part of the Consolidated Financial Statements

(a) The carrying value of goodwill for each of CGU and associated operating segments are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Novelis segment - (i)		
Novelis - North America	12,025	11,852
Novelis - Europe	8,957	8,847
Novelis - South America	3,051	3,006
Novelis - Asia	1,865	1,863
Aluminium Upstream segment		
Utkal Alumina International Limited (Utkal) - (ii)	110	110
Minerals and Minerals Limited (M&M) * - (iii)	-	-
Aluminium Downstream segment		
Kuppam - (v)	4	4
Copper segment		
Birla Copper Asoj Private Limited - (iv)	63	63
	26,075	**25,745**

* it represents Goodwill on acquisition of M&M ₹ 0.12 Crore.

(i) During the year 2007-08, the Group acquired Novelis Inc., the world's largest aluminium rolled product manufacturer through its indirect wholly-owned subsidiaries, this lead to presence of the Hindalco across the globe.

(ii) During the year 2007-08, the Group has acquired the shareholding of Utkal Alumina International Limited (Utkal) from Alcan Inc. Consequently, making Utkal as wholly owned subsidiary of the Company.

(iii) During the year 1986-87, the Group has acquired the shareholding of Minerals and Minerals Limited (M&M). Consequently, making M&M as wholly owned subsidiary of the Company.

(iv) During the year 2021-22, the Group through it's wholly owned subsidiary, Renuka Investments & Finance Limited had acquired 100% of equity shareholding of Birla Copper Asoj Private Limited (Birla Asoj) which is in the business of manufacturing Copper Rods on job work basis. The acquisition was in line with the Group's intention to expand in the copper downstream portfolio.

(v) During the year 2021-22, the Group completed the acquisition of the Extrusion business of SAPA Extrusion India Private Limited (Kuppam Unit), manufacturer of high end extrusion products. The acquisition increased the Group's footprint in high-end extrusion products.

(b) Impairment testing of Goodwill

The recoverable amount of Novelis Segment CGU to which goodwill is allocated for the years ended 31/03/2024 and 31/03/2023 is determined based on fair value (Level 3) less cost to sell calculations, which require the use of assumptions. For the purpose of impairment testing, the Group allocated goodwill to cash-generating units (CGU) that are expected to benefit from the synergies of the acquisition.

The estimate of fair value less cost to sell for each CGU is based on weighted average of discounted cash flows (the income approach) and/or guideline public company method which considers Enterprise Value ("EV")/EBITDA multiples of comparable companies adjusted with control premium (the market approach)

Under the income approach, the fair value of each CGU is based on the present value of estimated future cash flows. The income approach is dependent on a number of significant management assumptions including markets and market share, sales volumes and prices, costs to produce, capital spending, working capital changes and the discount rate. The Group estimate future cash flows for each of the CGU based on their respective projections. These projected cash flows are discounted to the present value using a weighted average cost of capital (discount rate). The projections are based on both past performance and the expectations of future performance and assumptions used in current operating plan.

Under the market approach, fair value is calculated based on guideline public company model. Under this model, the fair value of each CGU is determined based upon comparisons to public companies engaged in similar businesses. The Group uses the trailing and forward EV/EBITDA multiples. EV is defined as the total of equity capital plus debt capital. The trailing multiples have been based on the EBITDA of the trailing twelve months preceding the valuation date and the forward multiples have been based on the one-year and two-year forward consensus analyst EBITDA estimates as on the valuation date and has been adjusted for control premium.

The calculations use cash flow projections based on financial budgets approved by management covering three to five-year period depending upon CGU's/ segment financial budgeting process. Cash flows beyond the five-year period are extrapolated using the estimated growth rates stated below.

The key assumptions used in the estimation of the recoverable amount of CGU's/ segment are set out below. The values assigned to the key assumptions represent management's assessment of future trends in the relevant industries and economic environment and have been based on historical data from both external and internal sources.

	Novelis		Aluminium Upstream		Aluminium Downstream		Copper	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Discount rate (i)	10.45%	9.57%	10.90%	10.90%	10.90%	10.90%	10.90%	10.90%
Terminal growth rate (ii)	2.25%	2.25%	4.50%	4.50%	4.50%	4.50%	2.00%	2.00%
EV/EBITDA multiple (in times)	6.50 to 9	6 to 9	NA	NA	NA	NA	NA	NA

(i) The projected cash flows are discounted to the present value using a post-tax weighted average cost of capital (discount rate). The discount rate is commensurate with the risk inherent in the projected cash flows and reflects the rate of return required by an investor in the current economic conditions.

(ii) The Group uses specific growth assumptions for each reporting unit based on history and economic conditions.

(iii) Cost of disposal is assumed to be 4% (31/03/2023: 4%) of the fair value.

(iv) Valuation method for testing the impairment in smaller units is value in use.

As a result of the Management's annual goodwill impairment test for the year ended March 31, 2024 and March 31, 2023, no goodwill impairment was identified as the recoverable value of the CGUs to whom goodwill was allocated exceeded their respective carrying amounts as of March 31, 2024 and March 31, 2023.

Impact of possible changes in key assumptions

The carrying value of goodwill predominantly (approximately 99% of the total goodwill) relates to the goodwill that arose on the acquisition of Novelis Inc. wherein goodwill has been allocated in four CGUs. The recoverable amount of each of these four CGUs would not fall below the the carrying value if the key assumptions were to change as follow:

	As at 31/03/2024		As at 31/03/2023	
	From	To	From	To
Long-term growth rate (%)				
Novelis - North America	2.25%	**	2.25%	**
Novelis - Europe	2.25%	**	2.25%	2.02%
Novelis - South America	2.25%	**	2.25%	**
Novelis - Asia	2.25%	**	2.25%	**
Post-tax discount rate (%)				
Novelis - North America	10.45%	10.53%	9.57%	**
Novelis - Europe	10.45%	11.09%	9.57%	9.73%
Novelis - South America	10.45%	**	9.57%	**
Novelis - Asia	10.45%	**	9.57%	**
EV/EBITDA multiple (in times)				
Novelis - North America	6.50 - 9	**	6 - 9	**
Novelis - Europe	6.50 - 9	**	6 - 9	6 - 8.50
Novelis - South America	6.50 - 9	**	6 - 9	**
Novelis - Asia	6.50 - 9	**	6 - 9	**

** Management believes that there is no reasonably possible change in any of the above key assumptions that would cause the recoverable amount to fall below the carrying value of any of the CGU having allocated goodwill.

5. Financial Assets

All financial assets are recognised on trade date when the purchase of a financial asset is under a contract whose term requires delivery of the financial asset within the timeframe established by the market concerned. Financial assets are initially measured at fair value, plus transaction costs, except for those financial assets which are classified as at fair value through profit or loss (FVTPL) at inception. All recognised financial assets are subsequently measured in their entirety at either amortised cost or fair value.

Classification of financial assets

Financial assets are classified as 'equity instrument' if it is a non-derivative and meets the definition of 'equity' for the issuer. All other non-derivative financial assets are 'debt instruments'.

Initial recognition and subsequent measurement

Financial assets at amortised cost

The Group measures Debt instruments at amortised cost if both of the following conditions are met:

- *the asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows; and*
- *the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.*

Debt instruments meeting these criteria are subsequently measured at amortised cost using the effective interest method less any impairment, with interest recognised on an effective yield basis in other income.

Financial assets classified at amortised cost comprises of trade receivables, loans, deposits, matured derivatives pending realisation, accrued interest and other receivables.

Financial assets at fair value through other comprehensive income (FVTOCI)

A) Equity instrument

At initial recognition, an irrevocable election is made (on an instrument-by-instrument basis) to designate investments in equity instruments (other than held for trading purpose) at FVTOCI by the Group.

An Investment is held for trading if:

- *it has been acquired principally for the purpose of selling it in the near term; or*
- *on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has evidence of a recent actual pattern of short-term profit-taking; or*
- *it is a derivative that is not designated in an effective hedge relationship as a hedging instrument or a financial guarantee.*

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI'. Where the asset is disposed of, the cumulative gain or loss previously accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI' is directly reclassified to retained earnings.

B) Debt instrument

Debt instrument are measured at FVTOCI by the Group if both of the following conditions are met:

- *Debt Instrument is held within a business model whose objective is to hold asset in order to collect contractual cash flows and selling assets; and*
- *the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding Investment meeting these criteria are subsequently measured at fair value with any gains or losses arising on remeasurement recognised in other comprehensive income, except for impairment gains or losses, interest income and foreign exchange gains or losses which are recognised in the consolidated statement of profit and loss. Interest calculated using the effective interest method is recognised in the Consolidated statement of profit and loss as Other income. When the debt instrument is derecognised the cumulative gain or loss previously recognised in other comprehensive income is reclassified to the consolidated statement of profit and loss as a reclassification adjustment.*

Financial assets at fair value through profit and loss (FVTPL)

Financial assets that do not meet the criteria of classifying as amortised cost or fair value through other comprehensive income described above, or that meet the criteria but the entity has chosen to designate as at FVTPL at initial recognition, are measured at FVTPL.

Investments in equity instruments are classified as at FVTPL, unless the Group designates an investment that is not held for trading at FVTOCI at initial recognition.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on re-measurement recognised in the consolidated statement of profit and loss. Interest income from these financial assets is included in other income.

Notes

forming part of the Consolidated Financial Statements

Impairment of financial assets

On initial recognition of the financial assets, a loss allowance for expected credit loss is recognised for debt instruments carried at amortised cost and FVTOCI. For debt instruments that are measured at FVTOCI, the loss allowance is recognised in the consolidated statement of profit and loss.

Expected credit losses of a financial instrument is measured in a way that reflects:

- *an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;*
- *the time value of money; and*
- *reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.*

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition.

While making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort, that is indicative of significant increases in credit risk since initial recognition.

If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If, the credit risk on that financial instrument has increased significantly since initial recognition, the Group measures the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses.

The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date is recognised as an impairment loss or gain in the Consolidated Statement of Profit and Loss.

De-recognition of financial assets

The Group derecognises a financial asset on trade date only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity or when it retains contractual rights to retain contractual cash flows from financial assets, but assumes a contractual obligation to pay the cash flows to one or more recipient. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On de-recognition of a financial asset other than in its entirety (e.g. when the Group retains an option to repurchase part of a transferred asset), the Group allocates the previous carrying amount of the financial asset between the part it continues to recognise under continuing involvement, and the part it no longer recognises on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognised and the sum of the consideration received for the part no longer recognised and any cumulative gain or loss allocated to it that had been recognised in other comprehensive income is recognised in the consolidated statement of profit and loss. A cumulative gain or loss that had been recognised in other comprehensive income is allocated between the part that continues to be recognised and the part that is no longer recognised on the basis of the relative fair values of those parts.

5A. Investments, non-current

The Group recognises all Investments as FVTOCI or FVTPL based on its business model and contractual cash flow test.

(₹ Crore)

	Face value per Unit*	Numbers as at		Amount as at	
		31/03/2024	31/03/2023	31/03/2024	31/03/2023
Equity instruments at FVTOCI					
Quoted					
Grasim Industries Limited	₹ 2	28,464,653	28,464,653	6,511	4,646
Grasim Industries Limited (Partly Paid up ₹ 0.50 per share)	₹ 2	954,121	-	97	-
Ultra Tech Cement Limited	₹ 10	1,258,515	1,258,515	1,227	959
Vodafone Idea Limited	₹ 10	751,119,164	751,119,164	995	436
Aditya Birla Fashion and Retail Limited	₹ 10	50,239,794	50,239,794	1,033	1,077
Aditya Birla Capital Limited	₹ 10	39,850,514	39,850,514	699	611
				10,562	7,729
Unquoted					
Sai Wardha Power Generation Limited	₹ 10	2,830,352	2,830,352	-	-
Birla International Limited	CHF 100	2,500	2,500	4	6
Bharuch-Dahej Railway Company Limited	₹ 10	13,530,000	13,530,000	22	19
Birla Management Centre Services Limited	₹ 10	9,500	9,500	20	15
Saras Micro Devices Inc.	USD 13.33	100,000	100,000	11	11
Addionics Limited	USD 9.25	162,246	162,246	13	13
Sortera Alloys, Inc.	USD 13.78	331,576	397,709	38	37
Multiscale Technologies, Inc.	USD 2.04	540,275	540,275	9	12
DTE ehf.	USD 14.12	141,665	141,665	17	16
Woodlands Multi Speciality Hospital Limited	₹ 10	7,200	7,200	-	-
				134	129
Debt instruments at FVTOCI					
Quoted					
Government Securities - (b)					
6.83% Government of India Bond, 2039		2,000,000	2,000,000	20	19
6.57% Government of India Bond, 2033		5,000,000	5,000,000	48	47
6.45% Government of India Bond, 2029		5,000,000	5,000,000	49	48
5.79% Government of India Bond, 2030		10,000,000	10,000,000	94	93
6.19% Government of India Bond, 2034		10,000,000	10,000,000	93	91
				304	298
Quoted					
Investment in Debentures at FVTOCI	₹ 100,000	100,000	-	1,002	-
				1,002	-
Debt instruments at FVTPL					
Quoted					
Investment in Debentures at FVTPL	₹ 100,000	5,000	-	50	-
				50	-

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	Face value per Unit*	Numbers as at		Amount as at	
		31/03/2024	31/03/2023	31/03/2024	31/03/2023
Unquoted					
Preference shares					
Aditya Birla Health Services Limited - 7% Redeemable, Non Cumulative	₹ 100	2,500,000	2,500,000	10	24
				10	24
				12,062	**8,180**

*Fully paid-up unless otherwise stated

(a)	Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted Investments are given below:				
	Aggregate Cost of Quoted Investments			4,083	2,990
	Aggregate Market value of Quoted Investments			11,918	8,027
	Aggregate Cost of Unquoted Investments			130	134
	Aggregate amount of impairment in value of investments			3	3
	Aggregate Carrying value of Quoted and Unquoted Investments			12,062	8,180

(b) Investment in Government Securities includes ₹ 24 Crore (Cost: ₹ 26 Crore) (31/03/2023: ₹ 24 Crore (Cost: ₹ 26 Crore)) given as margin money with counter parties for derivative transactions.

5B. Investments, current

(₹ Crore)

	Value as at	
	31/03/2024	31/03/2023
Quoted		
Investment in Government Securities at FVTOCI	5	5
Investment in Debentures and Bonds at FVTPL	350	130
Investment in Debt Schemes of Mutual Funds at FVTPL - (b)	1,581	5,625
Investment in Commercial Papers at FVTPL	199	97
Investments in Certificate of Deposits - FVTPL	1,137	-
	3,272	5,857
(a) Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted investments are given below:		
Aggregate cost of Quoted Investments	3,157	5,732
Aggregate Market value of Quoted Investments	3,272	5,857
Aggregate Cost of Unquoted Investments	-	-
Aggregate amount of impairment in value of investments	-	-
Aggregate Carrying value of Quoted and Unquoted Investments	3,272	5,857

(b) Investment in debt schemes of mutual funds includes ₹ 363 Crore (Cost: ₹ 313 Crore) (31/03/2023: ₹ 338 Crore (Cost: ₹ 313 Crore)) being placed as margin money with counter parties for derivative transactions.

5C. Loans

(Unsecured, considered good unless otherwise stated)

Loans given by the Group are financial assets and are intially recognisied based on the business model for managing the financial asset and the contractual cash flow characteristics of the loan. They are measured at FVTPL unless it is not measured at amortised cost or FVTOCI.

The Group measures loans at amortised cost since:

1) the asset is held within a business model whose objective is to hold asset in order to collect contractual cash flows; and

2) the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.These loans are subsequently measured at amortised cost using the Effective Interest Rate (EIR) method.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance income in the Consolidated Statement of Profit and Loss.

The details of amount outstanding as at reporting date are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Loan to Related Parties - (a), (b), (c)	-	24	29	-
Loan to Employees	6	8	16	8
Loan to Others	1	-	2	-
	7	32	47	8

(a) There are no Loans or Advances in the nature of loans granted to promoters, directors, Key Managerial Personnel (KMPs) and the related parties, that are repayable on demand as on 31/03/2024 and 31/03/2023.

(b) Refer Note 30 for details of balances with related parties.

(c) Disclosure relating to amount outstanding at year end and maximum outstanding during the year of loans and advances, in nature of loan required under schedule V of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 and details of such loans given, investment made and guarantees given covered under section 186(4) of the Companies Act, 2013 are given below:

(₹ Crore)

Name of the Company	Relationship	Nature of Transaction	Purpose / Utilisation	Outstanding balance as at		Maximum outstanding during the year ended on	
				31/03/2024	31/03/2023	31/03/2024	31/03/2023
Aditya Birla Science and Technology Company Private Limited	Associate	Loan	Working capital Use	24	29	29	36

Notes

forming part of the Consolidated Financial Statements

5D. Derivatives and hedge accounting

The Group uses derivative financial instruments such as forwards, futures, swaps, options etc. to hedge its risks associated with foreign exchange fluctuation and price risk movement. Risks associated with fluctuation in the price of the products (copper, aluminium, coal, furnace oil, natural gas, electricity, diesel and precious metals) are minimized by undertaking appropriate derivative instruments.

The Group also identifies embedded derivatives in certain transactions.Derivatives embedded in other contracts are treated as separate derivatives when their risks and characteristics are not closely related to their host contracts. In some cases, the embedded derivatives may be designated in a hedge relationship. The fair values of all such derivative financial instruments are recognized as assets or liabilities at the balance sheet date. Embedded derivatives closely related to the host contracts are not separated. Derivatives embedded in a host contract that is an asset within the scope of Ind AS 109 are not separated. Derivatives embedded in all other host contract are separated only if the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host and are measured at fair value through profit or loss. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest. These derivatives are designated into a hedge relationship if they meet hedge accounting criteria.

The full fair value of a hedging derivative is classified as a Non-Current asset or liability when the residual maturity of the derivative is more than 12 months and as a current asset or liability when the residual maturity of the derivative is less than 12 months as at the end of the reporting period.

Fair value measurement of derivatives

Fair value of financial derivatives is estimated as the present value of future cash flows, calculated by reference to quoted price curves and exchange rates as of the balance sheet date whereas options are valued using appropriate option pricing models by the Group. For Valuation of options, credit spreads are applied where deemed to be significant.

Fair value measurement of embedded derivatives

The Group values embedded derivatives that are separated from the host contract by comparing the forward curve at contract inception to the forward curve as of the balance sheet date. Changes in the present value of the cash flows related to the embedded derivative are recognized in the consolidated balance sheet and in the consolidated statement of profit and loss.

The Group designates commodity hedges of Copper, Gold and Silver at the fair value of recognised assets (or liabilities or a firm commitment) under fair value hedge. Currency hedges and Commodity hedge of Aluminium business are designated based on a particular risk associated with the cash flow of recognised assets (or liabilities or a highly probable forecast transaction) under cash flow hedge.

The Group also applies hedge accounting using certain foreign currency non-derivative monetary items which are used as hedging instruments for hedging foreign exchange risk.

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Group also documents the nature of the risk being hedged and how the Group will assess whether the hedging relationship meets the hedge effectiveness requirements (including its analysis of the sources of hedge ineffectiveness and how it determines the hedge ratio).

Change in Fair value of derivatives (including embedded derivatives) that are not designated in any hedge relationship as mentioned above are accounted through the consolidated statement of profit and loss at each reporting date.

Fair value hedge

Changes in the fair value of derivatives (including embedded derivatives) that are designated and qualify as fair value hedges are recorded in the consolidated statement of profit and loss, together with any changes in the fair value of the hedged item that are attributable to the hedged risk.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortised to the consolidated statement of profit and loss from that date except for inventory that is charged to the consolidated statement of profit and loss on sale of goods.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated under the heading cash flow hedging reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in the consolidated statement of profit and loss, and is included in the '(Gain) / Loss on change in Fair Value of Derivatives' line item.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to the Consolidated statement of profit and loss in the periods when the hedged item affects the consolidated statement of profit and loss, in the same line as the recognised hedged item. However, when the hedged forecast transaction results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously recognised in other comprehensive income and accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability as a basis adjustment.

If the hedge ratio for risk management purposes in no longer optimal but the risk management objective of the Group remains unchanged and the hedge continues to qualify for hedge accounting, the hedge relationship will be rebalanced by adjusting either the volume of the hedging instrument or the volume of the hedged item so that the hedge ratio aligns with the ratio used for risk management purposes. Any hedge ineffectiveness is calculated and accounted for in the consolidated statement of profit and loss at the time of the hedge relationship rebalancing.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. Any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the consolidated statement of profit and loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in the Consolidated statement of profit and loss.

(a) The asset and liability position of various outstanding derivative financial instruments is given below:

(₹ Crore)

Particulars	Nature of risk being hedged	As at 31/03/2024			As at 31/03/2023		
		Liability	Asset	Net Fair Value	Liability	Asset	Net fair value
Current							
Cash flow hedges							
Commodity contracts	Price risk	(530)	35	(495)	(288)	634	346
Foreign currency contracts	Exchange rate movement risk	(112)	178	66	(190)	274	84
Fair value hedges							
Commodity contracts	Price risk	(288)	13	(275)	(197)	-	(197)
Foreign currency contracts	Exchange rate movement risk	(1)	4	3	(5)	1	(4)
Non-designated hedges							
Commodity contracts	Price Risk	(456)	543	87	(511)	796	285
Foreign currency contracts	Exchange rate movement risk	(160)	49	(111)	(181)	120	(61)
		(1,547)	**822**	**(725)**	**(1,372)**	**1,825**	**453**
Offsetting*		191	(191)	-	115	(115)	-
Total (A)		**(1,356)**	**631**	**(725)**	**(1,257)**	**1,710**	**453**

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

Particulars	Nature of risk being hedged	As at 31/03/2024			As at 31/03/2023		
		Liability	Asset	Net Fair Value	Liability	Asset	Net fair value
Non - current							
Cash flow hedges							
Commodity contracts	Price Risk	(16)	-	(16)	(4)	22	18
Interest rate contracts	Interest rate movement risk	(16)	-	(16)	-	-	-
Foreign currency contracts	Exchange rate movement risk	(1)	85	84	(11)	134	123
Non-designated hedges							
Commodity contracts	Price Risk	(9)	3	(6)	(20)	4	(16)
Foreign currency contracts	Exchange rate movement risk	-	3	3	(24)	24	0
		(42)	**91**	**49**	**(59)**	**184**	**125**
Offsetting*		**-**	**-**	**-**	**3**	**(3)**	**-**
Total (B)		**(42)**	**91**	**49**	**(56)**	**181**	**125**
Current							
Fair value hedges							
Embedded derivatives [(i)]	Risk of change in Fair Value of unpriced inventory	(568)	5	(563)	(428)	23	(405)
Total (C)		**(568)**	**5**	**(563)**	**(428)**	**23**	**(405)**
Grand Total (A)+(B)+(C)		**(1,966)**	**727**	**(1,239)**	**(1,741)**	**1,914**	**173**

(i) Fair value net loss of embedded derivatives of ₹ 563 Crore (31/03/2023: net Loss ₹ 405 Crore) is accounted for as part of Trade Payables.

*Financial instruments are subject to offsetting, enforceable master netting arrangement and similar arrangements. Refer Note 35 for further details.

(b) Outstanding position and fair value of various foreign exchange derivative financial instruments:

Particulars	Currency Pair	As at 31/03/2024			As at 31/03/2023		
		Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)	Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)
Currency options							
Cash flow hedges							
Sell	USD_INR	-	-	-	84.00	204	7
Total				-			7
Currency forwards							
Cash flow hedges							
Buy	CHF_EUR	1.07	77	(15)	0.98	101	(4)
Buy	USD_CHF	0.85	15	(5)	0.93	17	4
Buy	BRL_USD	0.19	193	27	0.17	226	143
Buy	EUR_USD	1.10	319	(17)	1.09	375	22
Buy	USD_CAD	1.35	32	-	1.32	24	(5)
Buy	USD_KRW	1,311.71	329	(48)	1,260.13	455	(76)
Buy	CAD_INR	61.38	-	-	-	-	-
Buy	EUR_INR	90.88	19	(1)	-	-	-
Buy	GBP_INR	105.39	1	-	-	-	-
Buy	EUR_KRW	1,454.02	2	-	1,419.68	1	-
Buy	JPY_USD	132.80	5	(4)	135.80	7	4
Sell	USD_INR	86.62	1,149	213	86.87	1,066	112
Total				**150**			**200**

Particulars	Currency Pair	As at 31/03/2024			As at 31/03/2023		
		Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)	Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)
Fair value hedges							
Buy	USD_INR	83.30	180	3	82.64	135	(4)
Total				**3**			**(4)**
Non-designated hedges							
Buy	CNY_KRW	184.52	160	(19)	-	-	-
Buy	USD_INR	83.40	12	-	82.43	77	-
Buy	GBP_EUR	1.16	245	13	1.14	308	(2)
Buy	USD_KRW	1,321.36	141	(14)	1,251.10	267	(45)
Buy	EUR_USD	1.10	244	(19)	0.79	305	(25)
Buy	GBP_USD	1.26	53	2	1.20	21	(5)
Buy	USD_CHF	0.87	12	(2)	0.91	23	3
Buy	CAD_USD	0.74	17	-	0.77	18	(6)
Buy	USD_BRL	5.09	59	1	4.87	126	20
Buy	EUR_KRW	1,454.02	2	-	1,419.68	6	2
Buy	CHF_GBP	0.79	-	-	0.88	9	-
Buy	CHF_EUR	1.04	581	(61)	0.99	552	(12)
Buy	USD_CNY	7.12	83	(5)	6.99	59	2
Buy	EUR_CNY	7.84	1	-	7.45	11	-
Buy	CNY_INR	11.56	10	-	-	-	-
Buy	JPY_USD	-	-	-	130.27	1	1
Sell	USD_INR	83.31	306	(4)	82.63	261	6
				(108)			**(61)**
Grand total				**45**			**142**

(c) Outstanding position and fair value of various foreign exchange non-derivative financial instruments used as hedging instruments:

Particulars	Note No	Currency Pair	As at 31/03/2024			As at 31/03/2023		
			Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)	Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)
Foreign currency monetary items								
Cash flow hedges								
Debt	12B	USD_INR	82.00	6	(3)	-	-	-
Liability for copper concentrate								
Host liability		USD_INR	83.05	435	(17)	82.39	519	12
Supplier Credit	12D	USD_INR	83.11	380	(10)	81.10	560	(20)
Total					**(30)**			**(8)**

Notes

forming part of the Consolidated Financial Statements

(d) Outstanding position and fair value of various commodity derivative financial instruments:

(i) Outstanding position and fair value of various commodity derivative financial instruments as at 31/03/2024:

Particulars		Currency	Weighted average strike rate	Quantity	Unit	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)
Commodity futures/ forwards/swaps/options							
Cash flow hedge							
Aluminium - Forwards	Sell	USD	2,296	757,905	MT	1,740	(460)
Aluminium - Forwards	Buy	USD	-	-	MT	-	-
Aluminium - Option	Sell	USD	2,354	130,000	MT	306	(27)
Diesel fuel - Forwards	Buy	USD	4	6,480,000	Gallons	26	(1)
Natural gas - Forwards	Buy	USD	3	6,600,000	MMBtu	21	(23)
Total							**(511)**
Fair value hedge							
Gold	Sell	INR	6,329,203	6,567	KGS	41,564	(287)
Silver	Sell	USD	25	120,809	TOZ	3	-
Copper	Sell	USD	8,952	13,350	MT	120	12
Total							**(275)**
Non-designated hedges							
Aluminium	Buy	USD	2,282	108,723	MT	248	50
Aluminium	Sell	USD	2,339	209,355	MT	490	(112)
Copper	Buy	USD	8,684	4,891	MT	42	9
Copper	Sell	USD	8,864	6,875	MT	61	4
Gold	Buy	INR	6,325,848	4,249	KGS	26,879	188
Silver	Buy	USD	25	241,473	TOZ	6	1
Silver	Sell	USD	23	241,473	TOZ	6	(5)
Furnace oil	Buy	USD	375	5,803	MT	2	3
Furnace oil	Sell	USD	447	5,803	MT	3	-
Local market premiums	Sell	USD	707	210,000	MT	68	(56)
Zinc	Buy	USD	2,525	2,517	MT	6	
Diesel fuel	Buy	USD	753	21,600	Gallons	18	7
Natural gas	Buy	USD	3	600,000	MMBtu	1	(8)
Total							**81**
Embedded derivatives							
Fair value hedge							
Copper	Sell	USD	8,385	122,053	MT	1,023	(441)
Gold	Sell	USD	2,050	69,220	KGS	142	(111)
Silver	Sell	USD	23	680,644	TOZ	16	(11)
Total							**(563)**
Grand total							**(1,268)**

(ii) Outstanding position and fair value of various commodity derivative financial instruments as at 31/03/2023:

Particulars		Currency	Weighted average strike rate	Quantity	Unit	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)
Commodity futures/ forwards/swaps/options							
Cash flow hedge							
Aluminium - Forwards	Sell	USD	2,457	612,295	MT	1,505	249
Aluminium - Options	Buy	USD	2,377	187,920	MT	447	121
Furnace Oil - Swaps	Buy	USD	-	52,000	MT	19	4
Diesel Fuel - Forwards	Buy	USD	4	996,000	Gallons	4	(4)
Natural gas - Forwards	Buy	USD	2	6,875,000	MMBtu	15	(6)
Total							**364**
Fair value hedge							
Gold	Sell	INR	5,630,292	4,425	KGS	24,914	(140)
Silver	Sell	USD	-	-	TOZ	-	-
Copper	Sell	USD	8,334	10,700	MT	89	(57)
Total							**(197)**
Non-designated hedges							
Aluminium	Buy	USD	2,364	281,427	MT	665	164
Aluminium	Sell	USD	2,421	133,330	MT	323	4
Copper	Buy	USD	8,644	14,000	MT	121	47
Copper	Sell	USD	8,854	14,275	MT	126	(16)
Gold	Buy	INR	5,693,633	3,028	KGS	17,240	75
Silver	Buy	USD	22	909,754	TOZ	20	13
Silver	Sell	USD	24	514,516	TOZ	12	(2)
Zinc	Buy	USD	2,907	2,100	MT	6	(2)
Diesel Fuel	Buy	USD	766	9,600	MT	7	(8)
Natural Gas	Buy	USD	2	625,000	MMBtu	1	(6)
Total							**269**
Embedded derivatives							
Fair value hedge							
Copper	Sell	USD	8,705	130,979	MT	1,140	(300)
Gold	Sell	USD	1,857	98,953	KGS	184	(98)
Silver	Sell	USD	22	399,859	TOZ	9	(7)
Total							**(405)**
Grand total							**31**

Notes

forming part of the Consolidated Financial Statements

(e) Outstanding position and fair value of various interest rate derivative financial instruments:

Interest Rate Swaps	Fixed Leg	As at 31/03/2024			As at 31/03/2023		
		Average price (%)	Notional value in foreign currency (in Million)	Fair value gain/ (loss) ₹ in Crore)	Average price (%)	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)
Cash flow hedges							
3M Term SOFR	Pay fixed	4.40%	400	(16)	-	-	-
Total				**(16)**	**-**	**-**	**-**

(f) The following table presents details of amount held in Effective portion of Cash flow hedge and Cost of Hedging Reserve and the period during which these are going to be released and affecting Statement of Profit and Loss.

(₹ Crore)

Effective portion of cash flow hedges	Products/ Currency pair	As at 31/03/2024			As at 31/03/2023		
		Closing value cash flow hedges	Release		Closing value cash flow hedges	Release	
			Within 12 months	After 12 months		Within 12 months	After 12 months
		Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)
Hedge instrument type							
Commodity forwards/ future/swaps	Aluminium	(267)	(265)	(2)	527	524	3
	Furnace Oil	-	-	-	5	5	-
	Diesel Fuel	(10)	(9)	(1)	(6)	(3)	(3)
	Electricity	-	-	-	-	-	-
	Natural Gas	(31)	(31)	-	(12)	(14)	2
Total (A)		**(308)**	**(305)**	**(3)**	**514**	**512**	**2**
Currency forwards	USD_INR	213	132	81	112	20	92
	EUR_INR	-	-	-	-	-	-
	USD_EUR	13	(14)	27	45	(3)	48
	USD_BRL	15	20	(5)	110	106	4
	USD_CAD	-	-	-	(5)	(5)	-
	USD_KRW	(51)	(51)	-	(72)	(72)	-
	USD_CHF	(5)	(5)	-	5	5	-
	EUR_CHF	(19)	(22)	3	(6)	(6)	-
	USD_CNY	(2)	-	(2)	6	-	6
Currency options	USD_INR	-	-	-	(1)	(1)	-
Total (B)		**164**	**60**	**104**	**194**	**44**	**150**
Interest rate swaps	3M Term SOFR	(16)	18	(34)	-	-	-
Total (C)		**(16)**	**18**	**(34)**	**-**	**-**	**-**
Non derivative financial instruments							
Debt	USD_INR	(3)	(3)	-	-	-	-
Liability for copper concentrate		-	-	-	-	-	-
Host liability	USD_INR	(17)	(17)	-	(5)	(5)	-
Supplier credit	USD_INR	(10)	(10)	-	(3)	(3)	-
Total (D)		**(30)**	**(30)**	**-**	**(8)**	**(8)**	**-**
Total (A+B+C+D)		**(190)**	**(257)**	**67**	**700**	**548**	**152**
Deferred tax on above		20	53	(33)	(244)	(196)	(47)
		(170)	**(204)**	**34**	**456**	**352**	**105**

(₹ Crore)

Cost of hedging reserve	Products/ currency pair	As at 31/03/2024			As at 31/03/2023		
		Closing value cost of hedge reserve	Release		Closing value cost of hedge reserve	Release	
			Within 12 months	After 12 months		Within 12 months	After 12 months
		Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)
Hedge instrument type							
Commodity forwards/ swaps	Silver	(0)	(0)	-	-	-	-
	Copper	(6)	(6)	-	(4)	(4)	-
Commodity options	Aluminium	(27)	(27)	-	-	-	-
Currency options	USD_INR	-	-	-	8	8	-
Total		**(33)**	**(33)**	**-**	**4**	**4**	**-**
Deferred tax on above		13	13	-	(1)	(1)	-
		(20)	**(20)**	**-**	**3**	**3**	**-**

(g) Gain/(Loss) recognized in OCI, recycled and closing position:

(i) The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash flow hedge and Cost of hedging reserve and recycled for the financial year ended 31/03/2024 along with closing amount in hedging reserve:

(₹ Crore)

Effective portion of cash flow hedges	Opening balance	Net amount recognised	Recycled			Cummulative translation adjustment	Closing balance
			Net amount to P&L	Amount added to non-financial assets	Total amount recycled		
Commodity	514	1,408	2,226	18	2,244	14	(308)
Forex	186	(124)	(109)	36	(73)	(1)	134
Interest	-	-	16	-	16	-	(16)
Total	**700**	**1,284**	**2,133**	**54**	**2,187**	**13**	**(190)**
Deferred tax on above	(244)	(365)	(609)	(18)	(627)	2	20
Total	**456**	**919**	**1,524**	**36**	**1,560**	**15**	**(170)**

(₹ Crore)

Cost of hedging reserve	Opening balance	Net amount recognised	Recycled			Cummulative translation adjustment	Closing balance
			Net amount to P&L	Amount added to non-financial assets	Total amount recycled		
Commodity	(4)	(36)	(7)	-	(7)	-	(33)
Forex	8	(8)	-	-	-	-	-
Total	**4**	**(44)**	**(7)**	**-**	**(7)**	**-**	**(33)**
Deferred tax on above	**(1)**	**16**	**2**	**-**	**2**	**-**	**13**
Total	**3**	**(28)**	**(5)**	**-**	**(5)**	**-**	**(20)**

Notes

forming part of the Consolidated Financial Statements

(ii) The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and recycled for the financial year ended 31/03/2023 along with closing amount in hedging reserve:

(₹ Crore)

Effective portion of cash flow hedges	Opening balance	Net amount recognised	Recycled			Cummulative translation adjustment	Closing balance
			Net amount to P&L	Amount added to non-financial assets	Total amount recycled		
Cash flow hedges							
Commodity	(7,279)	10,641	2,698	(18)	2,680	(168)	514
Forex	355	(1,293)	(1,123)	(12)	(1,135)	(11)	186
Total	**(6,924)**	**9,348**	**1,575**	**(30)**	**1,545**	**(179)**	**700**
Deferred tax on above	2,030	(2,713)	(387)	7	(380)	59	(244)
Total	**(4,894)**	**6,635**	**1,188**	**(23)**	**1,165**	**(120)**	**456**

(₹ Crore)

Cost of hedging reserve	Opening balance	Net amount recognised	Recycled			Cummulative translation adjustment	Closing balance
			Net amount to P&L	Amount added to non-financial assets	Total amount recycled		
Cost of hedging reserve							
Commodity	(60)	(71)	(127)	-	(127)	-	(4)
Forex	-	8	-	-	-	-	8
Total	**(60)**	**(63)**	**(127)**	**-**	**(127)**	**-**	**4**
Deferred tax on above	**21**	**22**	**44**	**-**	**44**	**-**	**(1)**
Total	**(39)**	**(41)**	**(83)**	**-**	**(83)**	**-**	**3**

(h) The following table presents the amount of gain/ (loss) recycled from effective portion of cash flow hedge and cost of hedging reserve and reference of the line item in the consolidated statement of profit and loss where those amounts are included:

(₹ Crore)

Note no.	Note description	Particulars	Year ended	
			31/03/2024	31/03/2023
17	Revenue from operations	Commodity and forex	1,965	1,159
19	Cost of materials consumed	Commodity and forex	148	405
22	Finance costs	Interest rate swap	16	-
24	Other expenses	Commodity and forex	(3)	(116)
			2,126	**1,448**

(i) The following table presents the amount of gain/ (loss) recycled from effective portion of cash flow hedge and cost of hedging reserve and reference of the line item in the consolidated balance sheet where those amounts are included:

(₹ Crore)

Note no.	Note description	Particulars	Year ended	
			31/03/2024	31/03/2023
8B	Inventory	Furnace oil	18	(18)
	Foreign currency	Forex	36	(12)
			54	**(30)**

(j) The adjustment as part of the carrying value of inventories arising on account of fair value hedges is as follows:

(₹ Crore)

Increase/ (Decrease) in inventory value	As at 31/03/2024			As at 31/03/2023		
Inventory type	Raw material	WIP and finished goods	Total	Raw material	WIP and finished goods	Total
Copper	441	-	441	300	3	303
Gold	111	44	155	98	29	127
Silver	11	0	11	7	-	7
Total	**563**	**44**	**607**	**405**	**32**	**437**

(k) The Group's hedging policy only allows for effective hedge relationships to be established. The effective portion of hedge is recognised in OCI, while ineffective portion of hedge is recognised immediately in the consolidated statement of profit and loss. For cash flow hedges, the Group uses hypothetical derivative method to assess effectiveness based on "lower off" assessment.

Sources of Hedge ineffectiveness summarised by risk category are as follows :

Risk category	Sources of hedge ineffectiveness	Type of hedge
Price risk	Critical terms mismatch	Cash flow and fair value hedge
	Basis risk	Fair value hedge
	Credit Risk adjustment	Cash flow and fair value hedge
Exchange risk	Credit Risk adjustment	Cash flow hedge
Interest rate risk	Credit Risk adjustment	Cash flow hedge

(l) The amount of gain/ (loss) recognised in the consolidated statement of profit and loss on account of hedge ineffectiveness is as follows:

(₹ Crore)

Note no.	Note description	Particulars	Type of hedge	Year ended	
				31/03/2024	31/03/2023
24	Other expenses	Gain/(Loss) on derivatives	Cash flow hedge	(158)	590
24	Other expenses	Gain/(Loss) on derivatives	Fair value hedge	(266)	(261)
				(424)	**329**

(m) Certain hedges of forecast sale transaction for hedging currency risk were discontinued during the year since the hedged forecast transaction was not expected to occur.

Notes

forming part of the Consolidated Financial Statements

5E. Other financial assets

(Unsecured, Considered Good unless otherwise stated)

The amount outstanding as at reporting date are as under:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non Current	Current	Non Current	Current
Derivative matured pending realisation	-	318	-	447
Security Deposits - (a)	153	70	147	65
Deposit with Non-Banking Financial Companies	645	810	650	745
Deposit with Banks - (b)	2,440	-	1,904	-
Deposit with Others	65	-	8	-
Accrued Interest	-	318	-	175
Other Receivables - (c), (d)				
Unsecured, Considered Good	434	376	415	250
Unsecured, Considered Doubtful	-	2	-	2
Less : Loss Allowances	-	(2)	-	(2)
	3,737	1,892	3,124	1,682

(a) Includes Security Deposit (Non-current) pledged of ₹ 4 Crore (31/03/2023: ₹ 4 Crore). These deposit are held for purposes other than financing.

(b) Deposit with Banks (Non-current) includes ₹ 183 Crore (31/03/2023: ₹ 154 Crore) towards earmarked balances balance in escrow accounts/ under lien with various authorities.

(c) Other receivables (Current) include ₹ Nil ($ Nil) (31/03/2023: ₹ 24 Crore ($ 3 million)) of promissory note entered into upon sale of Saras.

(d) Other receivables (Non-current) includes amount receivable amounting to ₹ 361 Crore ($ 43 million) (31/03/2023: ₹ 353 Crore ($ 43 million)) originated as part of the settlement of Duffel contingent consideration.

5F. Trade receivables

Trade receivables are measured at their transaction price on initial recognition, unless it contains a significant financing component or pricing adjustments embedded in the contract in which cases it is recognised at fair value. Trade receivables which are held with the objective of collecting the contractual cash flows, are subsequently measured at amortised cost less loss allowance.

Trade receivables which are subject to a factoring arrangement without recourse are de-recognized in its entirety. Under this arrangement, the Group transfers relevant receivables to the factor in exchange for cash and does not retain late payment and credit risk. The Group considers the held to collect and sell business model to remain appropriate for such trade receivables and hence measures such trade receivables at fair value through other comprehensive income.

Trade receivables which arise from contracts where the sale price is provisional and revenue model have the character of a commodity derivative are measured at fair value. The fair value is measured at forward rate and subsequent changes are recognised as Other Operating Revenue.

For Trade Receivables and Contract Assets, the Group applies the simplified approach which requires expected life time losses to be recognized from initial recognition of the receivables.

The details of trade reveivables outstanding as at the reporting date are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Secured, considered good	1,742	1,837
Unsecured, considered good	14,707	14,410
Unsecured, credit impaired	54	60
	16,503	**16,307**
Less: loss allowances - (d)	(99)	(93)
	16,404	**16,214**

(a) Trade Receivables ageing schedule as at 31/03/2024:

(₹ Crore)

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of receipt					Total
			Less than 6 months	6 months - 1 year	1 - 2 years	2 - 3 years	More than 3 years	
(i) Undisputed - Considered good	-	15,425	601	309	87	20	7	**16,449**
(ii) Undisputed - Significant increase in credit risk	-	-	-	-	-	-	-	**-**
(iii) Undisputed - Credit impaired	-	-	-	16	2	1	14	**33**
(iv) Disputed - Considered good	-	-	-	-	-	-	-	**-**
(v) Disputed - Significant increase in credit risk	-	-	-	-	-	-	-	**-**
(vi) Disputed - Credit impaired	-	-	-	-	-	-	21	**21**
Total	**-**	**15,425**	**601**	**325**	**89**	**21**	**42**	**16,503**
Less: Loss Allowances (including Expected credit loss)								(99)
Net Trade Receivable								**16,404**
Expected credit loss provision	**-**	**3**	**10**	**23**	**3**	**4**	**2**	**45**
Exepected loss rate	**0.00%**	**0.02%**	**1.66%**	**7.44%**	**3.45%**	**20.00%**	**28.57%**	**0.27%**

Trade Receivables ageing schedule as at 31/03/2023:

(₹ Crore)

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of receipt					Total
			Less than 6 months	6 months - 1 year	1 - 2 years	2 - 3 years	More than 3 years	
(i) Undisputed - Considered good	3	15,819	75	182	78	3	10	16,170
(ii) Undisputed - Significant increase in credit risk	-	-	-	-	-	-	-	**-**
(iii) Undisputed - Credit impaired	-	-	-	2	4	2	15	**23**
(iv) Disputed - Considered good	-	-	13	26	-	38	-	**77**
(v) Disputed - Significant increase in credit risk	-	-	-	-	-	-	-	**-**
(vi) Disputed - Credit impaired	-	-	-	-	-	-	37	**37**
Total	**3**	**15,819**	**88**	**210**	**82**	**43**	**62**	**16,307**
Less: Loss Allowances (including Expected credit loss)								(93)
Net Trade Receivable								**16,214**
Expected credit loss provision	**-**	**1**	**5**	**18**	**5**	**2**	**2**	**33**
Exepected loss rate	**0.00%**	**0.01%**	**5.68%**	**8.65%**	**6.41%**	**4.88%**	**20.00%**	**0.20%**

(b) For trade receivables hypothecated against borrowings, Refer Note 12B.

(c) No trade or other receivable are due from directors or other officers of the Group either severally or jointly with any other person. Further, no trade or other receivable are due from firms or private companies respectively in which any director is a partner, or director or member.

(d) Loss allowances includes provision of ₹ 45 Crore (31/03/2023: ₹ 33 Crore) made on account of expected credit loss on Trade Receivables. Refer note 34 (c).

(e) Refer Note 30 for details of balances with related parties.

5G. Cash and cash equivalents

Cash and cash equivalents comprise of cash at bank and in hand, short-term deposits and short term highly liquid investments with an original maturity of three months or less that are readily convertible to known amounts of cash and are subject to insignificant risk of changes in value.

The Group adopts a policy of managing assets with liquidity in mind and monitoring future cash flows and liquidity on a regular basis. Investments in overnight mutual funds are classified as cash and cash equivalents as the instrument itself is readily convertible into cash and has a determinable market value. At the time of the initial investment, the Group is satisfied that the risk of changes in value is insignificant and therefore the amount of cash to be received on redemption is known. Such investments have lower risk of changes in fair value, provide flexibility to liquidate at short notice, including during times of market stress.

The details of cash and cash equivalents outstanding as at the reporting date are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Cash on Hand	-	-
Cheques and Drafts on Hand including remittance in transit - (a)	-	39
Balance with Banks		
Current Accounts	9,025	9,231
Deposits with Initial Maturity of less than three months	2,785	3,570
Short term Liquid Investments in Mutual Funds	6	-
	11,816	12,840

(a) Includes Nil (31/03/2023: ₹ 38 Crore) remittance in transit.

(b) There is no restriction with regard to cash and cash equivalents as the end of current year and previous year.

5H. Bank balances other than cash and cash equivalents

The Group recognises Investments in term deposits with Banks (with original maturity of more than three months but less than twelve months), seperately as bank balances other than cash and cash equivalents.

The details of such balances with banks are as under:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Balances with Banks		
Earmarked balances - (a)	15	15
Deposits with Initial Maturity more than three months	2,606	2,228
	2,621	2,243

(a) Includes unclaimed dividend of ₹ 6 Crore (31/03/2023: ₹ 6 Crore)

6. Income taxes

Income tax expense comprises tax currently payable and deferred tax.

Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from 'profit before tax' as reported in the consolidated statement of profit and loss because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Group's entities operate and generate taxable income using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the consolidated balance sheet and the corresponding tax bases used in the computation of taxable profit. Where the local currency is not the functional currency, deferred tax is recognised on temporary difference arising from exchange rate changes between the closing rate and the historical price of non-monetary assets translated at the exchange rate at the date of transaction if those non-monetary assets have tax consequences.

Deferred tax liabilities are generally recognised for all taxable temporary differences.

Deferred tax on the deductible temporary difference and taxable temporary differences in respect of carrying value of right of use assets and lease liability and their respective tax bases are recognised separately.

Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint arrangements, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future. Generally, the group is unable to control the reversal of the temporary difference for associates.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off when they relate to income taxes levied by the same taxation authority. Current tax assets and current tax liabilities are offset where the Group has legally enforceable right and intends to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Minimum Alternative Tax (MAT) is recognized as an asset only when and to the extent there is convincing evidence that the Group will pay normal income tax during the specified period. In the year in which the MAT credit becomes eligible to be recognized as an asset, the said asset is created by way of credit to the consolidated statement of profit and loss and

included in deferred tax assets. The Group reviews the same at each balance sheet date and writes down the carrying amount of MAT entitlement to the extent there is no longer convincing evidence to the effect that Group will pay normal income tax during the specified period.

Current and deferred tax for the period

Current and deferred tax are recognised in the consolidated statement of profit and loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity, respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Uncertain tax positions are reflected in the overall measurement of tax expense of respective group entities and are based on the most likely amount or the expected value arrived at by the Group companies which provides better prediction of the resolution of uncertainty. Uncertain tax positions are monitored and updated as and when new information becomes available, typically upon examination or action by the taxing authorities or through statute expiration and judicial precedent.

The Group considers when a particular amount payable for interest and penalties on income taxes is determined to be within the scope of Ind AS 37, it is presented as part of financing cost or other expenses, respectively unless when there is an overall settlement with tax authority and the interest and penalties cannot be identified separately in which case it is determined to be part of income taxes and accounted under Ind AS 12 Income Taxes.

Critical accounting judgement and key sources of estimation uncertainty

The Group calculates income tax expense based on reported income. Deferred income tax expense is calculated based on the differences between the carrying value of assets and liabilities for financial reporting purposes and their respective tax basis that are considered temporary in nature. Valuation of deferred tax assets is dependent on management's assessment of future recoverability of the deferred tax benefit. Expected recoverability may result from expected taxable income in the future, planned transactions or planned tax optimizing measures. Economic conditions may change and lead to a different conclusion regarding recoverability.

The Group is subject to tax assessments and ongoing proceedings, which are pending before various Tax Authorities of respective countries. Management periodically evaluates the positions taken in tax returns with respect to above matters, including unresolved tax disputes, which involves interpretation of applicable tax regulations and judicial precedents. Current tax liability and tax asset balances are presented, after recognising as appropriate, provision for taxes payable and contingencies basis Management's assessment of outcome of such ongoing proceedings and amounts that may become payable to the tax authorities. Considering the nature of such estimates and uncertainties involved, the amount of such provisions may change upon final resolution of the matters with tax authorities.

6A. Tax Expense

(a) Amount of income tax expense recognised in consolidated statement of profit and loss is given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Current Tax Expenses for the year		
Current Tax Expenses for the year	3,110	2,804
Tax adjustments for earlier years (Net)	(105)	52
	3,005	2,856
Deferred Tax Expense		
Deferred Income Tax (benefits)/expenses for the year	528	256
MAT Credit Entitlement (Net)	850	684
Tax Adjustment for earlier years - (i), (ii)	(526)	(652)
	852	288
Total Income Tax Expenses	3,857	3,144

(i) During the year ended March 31, 2024, the Group have made an assessment of the impact of the Taxation law (Amendment) Ordinance, 2019 and decided to continue with the existing tax structure until utilization of accumulated Minimum Alternate Tax (MAT) Credit and deduction available under Chapter VIA of the Income Tax Act 1961. In accordance with the accounting standards, the Group has remeasured the deferred tax liability that is expected to reverse in future when the Parent Company and its subsidiary would migrate to the new tax regime. Accordingly, the Group has written back its net deferred tax liability to the extent of ₹ 427 Crore (31/03/2023: ₹ 609 Crore).

(ii) During current year, the Group signed a Binding Memorandum of Understanding ["MOU"] with a buyer for sale of land situated at Kalwa, Maharashtra at a consideration of ₹ 595 Crore to be received in multiple tranches over a period of time and 1.5% of the Sales Revenue from the project as defined in the MOU ["transaction"]. The Group is reasonably certain about the culmination of this transaction. The Group has brought forward capital losses on Deferred Tax Assets (DTA) which were not recognized previously, now recognized during the year to the extent of ₹ 129 Crore, as there is reasonable certainty of realizing losses against the future capital gain resulting from this transaction.

(iii) The Group has been legally advised that there is no change to the statutory regime related to section 80GGB and section 80GGC on claiming deduction on account of the Judgment dated 15 February 2024 rendered by the Supreme Court in Association for Democratic Reforms v. Union of India, [2024] INSC 113 holding that the Electoral Bond Scheme is unconstitutional. In any event, any retrospective revocation or alteration of the entitlement and accrued rights of the donors to claim deductions under Sections 80GGB and 80GGC of Income Tax Act with respect to the political donations made through electoral bonds purchased prior to the judgment dated 15 February 2024 would be violative of Article 20(1) of the Constitution of India. Accordingly for income tax computation the Group is entitled to claim deduction under Sections 80GGB and 80GGC of Income Tax Act for donations made to recognised political parties, including through electoral bonds purchased prior to date of the Supreme Court judgment dated 15 February 2024. Accordingly, tax provision is after claiming deduction u/s 80GGB and 80GGC of the Income Tax Act.

(b) Reconciliation of Effective Tax Rate

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Profit/ (Loss) before Tax from Continuing and Discontinued Operation	14,012	13,241
Indian Statutory Income Tax Rate (%) *	34.944%	34.944%
Tax expenses using the Company's domestic tax rate	4,896	4,627
Tax effect of adjustments to reconcile reported income tax expense:		
Tax credits and other concessions	(299)	(289)
Income exempt from tax and deduction	(239)	(256)
Expenses not deductible in determining taxable profit	226	229
Tax on income (domestic and foreign) at rates different from statutory income tax rate	(313)	(457)
Previously unrecognised tax loss, tax credit or temporary difference of a prior period	1	(313)
Uncertain tax positions	121	23
Tax on Undistributed Earnings	-	(18)
Tax adjustment for earlier years - Deferred Tax Reversal (Refer foot note 6A (a) (i) and 6A (a) (ii) above)	(556)	(609)
Tax adjustment for earlier years - Deferred Tax - Others	30	(43)

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Tax adjustment for earlier years - Current tax	(105)	52
Deferred tax not recognised on carry forward losses and benefits	97	20
Foreign exchange translation & remeasurement	(41)	90
Others	39	88
Total Tax expenses recognised in the Consolidated Statement of Profit and Loss	**3,857**	**3,144**

* Applicable Indian Statutory Income Tax rate for the year ended March 31, 2024 and March 31, 2023 is 34.944% and 34.944%, respectively.

(c)	**Tax (Expense)/ Income Recognised in OCI, Refer Note 26 for further details.**	36	(2,543)
(d)	**Tax (Expense)/ Income Directly Recognised in Equity**		
	Basis adjustment on Cash flow hedges	22	(7)

6B. Income tax assets and liabilities with tax authorities

(₹ Crore)

		As at	
		31/03/2024	31/03/2023
(a)	**Income tax assets (Net)**		
	Non-current tax assets (Net)	7	8
	Current tax assets (Net)	117	109
		124	**117**
(b)	**Income tax liabilities (Net)**		
	Current tax liabilities	2,452	2,099
		2,452	**2,099**

6C. Deferred tax assets and liabilities

(₹ Crore)

		As at	
		31/03/2024	31/03/2023
(a)	**Deferred tax assets (Net)**		
	Deferred tax assets	1,406	1,600
	Deferred tax liabilities	(222)	(272)
		1,184	**1,328**

Major components of deferred tax assets (Net) arising on account of temporary timing differences and movement thereof are given below:

(₹ Crore)

	As at 01/04/2023	Recognised in statement of profit and loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	Reclass (DTL/DTA)	As at 31/03/2024
Deferred tax assets							
Provisions deductible for tax purposes in future period	394	(14)	13	-	(10)	-	383
PPE Depreciation and Intangible Amortization	137	(11)	-	-	(5)	-	121
Tax (losses)/benefits carry forwards, net (refer note 6(A)(a)(ii))	799	(188)	-	-	10	-	621
Lease liability against ROU assets	16	11					27
Inventory valuation reserves	95	20	(17)	-	-	-	98
Trade name	157	(6)	-	-	3	-	154
Others	2	(1)	-	-	1	-	2
	1,600	**(189)**	**(4)**	**-**	**(1)**	**-**	**1,406**
Deferred tax Liabilities							
PPE Depreciation and Intangible Amortization	203	(43)	-	-	-	-	160
ROU Assets	11	11					22
Inventory valuation reserves	3	3	-	-	-	-	6
Cash Flow Hedges	-	-	1	-	-	-	1
Others	55	(8)	(14)	-	-	-	33
	272	**(37)**	**(13)**	**-**	**-**	**-**	**222**
Net Deferred tax assets	1,328	(152)	9	-	(1)	-	1,184

(₹ Crore)

	As at 01/04/2022	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	Reclass (DTL/DTA)	As at 31/03/2023
Deferred tax assets							
Provisions deductible for tax purposes in future period	708	(352)	(34)	-	72	-	394
PPE Depreciation and Intangible Amortization	70	62	-	-	5	-	137
Tax (losses)/benefits carry forwards, net	715	29	-	-	55	-	799
Lease liability against ROU assets	22	(6)					16
Inventory valuation reserves	65	3	27	-	-	-	95
Cash Flow Hedges	-	-	-	-	-	-	-
Fair value measurements of financial instruments	-	-	-	-	-	-	-
Trade name	149	(4)	-	-	12	-	157
Others	-	1	-	-	1	-	2
	1,729	(267)	(7)	-	145	-	1,600
Deferred tax liabilities							
PPE Depreciation and Intangible Amortization	336	(157)	-	-	24	-	203
ROU Assets	18	(7)					11
Inventory valuation reserves	22	(20)	-	-	1	-	3
Cash Flow Hedges	11	-	(11)	-	-	-	-
Others	135	(85)	(5)	-	10	-	55
	522	(269)	(16)	-	35	-	272
Net Deferred tax assets	1,207	2	9	-	110	-	1,328

Notes

forming part of the Consolidated Financial Statements

(b) Deferred Tax Liabilities (Net)

(₹ Crore)

	As at 31/03/2024	As at 31/03/2023
Deferred Tax Liabilities	15,194	15,700
Deferred tax assets	(5,850)	(7,050)
	9,344	8,650

Major components of Deferred Tax Liabilities (Net) arising on account of temporary timing differences and movement therein are given below:

(₹ Crore)

	As at 01/04/2023	Additions due to Acquisition	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	Reclass (DTL/DTA)	As at 31/03/2024
Deferred Tax Liabilities								
PPE Depreciation and Intangible Amortization	11,980	-	(393)	-	-	55	-	11,642
ROU Assets	375	-	(18)	-	-	-	-	357
Inventory Valuation Reserves	1,256	-	(180)	-	-	19	-	1,095
Exchange Differences on Foreign Operations	1,027	-	(129)	-	-	14	-	912
Fair value measurements of financial instruments	296	-	(23)	319	(5)	-	-	587
Deferred tax on Undistributed earnings	-	-	-	-	-	-	-	-
Cash Flow Hedges	315	-	-	(140)	(15)	-	-	160
Others	451	-	2	(19)	-	7	-	441
Deferred tax reversal	-	-	-	-	-	-	-	-
	15,700	**-**	**(741)**	**160**	**(20)**	**95**	**-**	**15,194**
Deferred tax assets								
Tax (losses)/benefits carry forwards, net	1,658	-	(118)	-	-	22	-	1,562
Lease liability against ROU assets	400	-	(7)					393
Retirement Benefits and Compensated Absences	19	-	2	-	-	-	-	21
Cash Flow Hedges	72	-	-	118	2	2	-	194
Provisions deductible for tax purposes in future period	2,601	-	(37)	46	-	28	-	2,638
MAT Credit entitlement $	2,012	-	(1,282)	-	-	-	-	730
PP&E Depreciation and Intangible Amortization	30	-	2	-	-	(1)	-	31
Others	258	-	(1)	23	-	1	-	281
	7,050	**-**	**(1,441)**	**187**	**2**	**52**	**-**	**5,850**
Net Deferred Tax Liabilities	8,650	-	700	(27)	(22)	43	-	9,344

(₹ Crore)

	As at 01/04/2022	Additions due to Acquisition	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	Reclass (DTL/DTA)	As at 31/03/2023
Deferred Tax Liabilities								
PPE Depreciation and Intangible Amortization	12,086	1	(388)	-	-	281	-	11,980
ROU Assets	234	-	132	-	-	9	-	375
Inventory Valuation Reserves	1,544	-	(394)	-	-	106	-	1,256
Exchange Differences on Foreign Operations	947	-	2	-	-	78	-	1,027
Fair value measurements of financial instruments	283	-	79	(66)	-	-	-	296
Deferred tax on Undistributed earnings	18	-	(18)	-	-	-	-	-
Cash Flow Hedges	1	-	-	305	7	2	-	315
Others	503	-	(114)	27	-	35	-	451
Deferred tax reversal	-	-	-	-	-	-	-	-
	15,616	**1**	**(701)**	**266**	**7**	**511**	**-**	**15,700**
Deferred tax assets								
Tax (losses)/benefits carry forwards, net #	1,828	-	(296)	-	-	126	-	1,658
Lease liability against ROU assets	255	-	137	-	-	8	-	400
Retirement Benefits and Compensated Absences	63	1	(48)	3	-	-	-	19
Cash Flow Hedges	2,065	-	-	(2,054)	-	61	-	72
Provisions deductible for tax purposes in future period	2,477	-	222	(240)	-	142	-	2,601
MAT Credit entitlement $	2,994	-	(982)	-	-	-	-	2,012
PPE Depreciation and Intangible Amortization	2	-	27	-	-	1	-	30
Others	301	-	(51)	5	-	3	-	258
	9,985	**1**	**(991)**	**(2,286)**	**-**	**341**	**-**	**7,050**
Net Deferred Tax Liabilities	5,631	-	290	2,552	7	170	-	8,650

$ MAT credit has been recognised considering reasonable centainty, supported by convincing evidence, that sufficient profit will be available in future against which the MAT credit will be recovered.

(c) Deferred tax assets and deferred tax liabilities have been offset wherever the Group has a legally enforceable right to set-off current tax assets against current tax liabilities and where the deferred tax assets and deferred tax liabilities relate to income tax levied by the same taxation authority.

(d) The Group has not recognised deferred tax on temporary differences relating to depreciation which originate and reverse during the tax holiday period.

Notes

forming part of the Consolidated Financial Statements

(e) Unrecognised Deferred Taxes

The items on which the Group has not recognised Deferred tax assets at the reporting date as it is not probable of recovery are given below:

(₹ Crore)

	As at 31/03/2024	As at 31/03/2023
(i) **Un-expiring**		
i. Unabsorbed Depreciation and other expenses not yet deductible for tax	801	719
ii. Tax losses carry forwards	109	127
iii. Unused tax credits	715	649
(ii) **Expiring**		
i. Tax losses carry forwards	3,934	4,068
Period of expiry	FY 2025-42	FY 2024-42
ii. Unused tax credits	243	278
Period of expiry	FY 2025-33	FY 2024-33
iii. Long term capital loss carry forward	89	218
Period of expiry	FY 2024-25	FY 2024-25
(iii) Cumulative undistributed earnings in respect of certain Group entities for which the Group has not provided deferred tax liability. The Group believe that the reversal of such temporary difference is not probable in the foreseeable future.	40,564	37,328

(f) Tax Uncertainties:

As of March 31, 2024 and March 31, 2023 the total amount of unrecognized benefits that, if recognized, would affect the effective income tax rate in future periods based on anticipated settlement dates is ₹ 667 Crores ($80 million) and ₹ 603 Crores ($73 million), respectively.

Tax authorities continue to examine certain other of Novelis tax filings for fiscal year 2005 and the fiscal years 2013 through 2019. As a result of further settlement of audits, judicial decisions, the filing of amended tax returns or the expiration of statutes of limitations, our provision for unrecognized tax benefits, as well as reserves for interest and penalties, are not expected to decrease in the next 12 months). With few exceptions, tax returns for all jurisdictions for all tax years before 2005 are no longer subject toexamination by taxing authorities.

As of March 31, 2024 and March 31, 2023, Novelis had ₹ 77 Crores ($9 million) and ₹ 77 Crores ($9 million) accrued, respectively, for interest and penalties. For the years ended March 31, 2024 and 2023 we recognized interest and penalties expense of ₹ (2) Crores (approximately $0 million) and ₹ 2 Crores (approximately $0 million), respectively.

7. Other non-current and current assets

(Unsecured, Considered Good unless otherwise stated)

Assets that do not meet the criteria of classifying as financial assets, nor reported in any other categories separately but are relevant to understand Group's financial position are classified as other assets.

At each reporting period, the Group reviews the recoverability of such assets and appropriate provision is made in case any asset is considered as doubtful of recovery.

The details of other non-current and current assets outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non Current	Current	Non Current	Current
Capital advance - (a)	4,599	-	3,037	-
Deposits with government and other authorities	13	33	17	35
Advance to supplier for goods and services - (e)	-	1,461	2	1,841
Prepaid expenses - (d)	253	753	320	1,089
Others - (b), (c)	824	2,455	857	2,674
Unsecured, considered doubtful				
Advance to supplier for goods and services	43	126	12	110
Others	-	-	-	40
Less : Loss allowances	(43)	(126)	(12)	(150)
	5,689	4,702	4,233	5,639

(a) Includes an advance of ₹ 91 crore given to Gujarat Industrial Development Corporation (GIDC) who are constructing a common desalination plant (the 'Plant') at Dahej Industrial Area in Gujarat through a SPV, having total estimated cost of ₹ 1,140 crore. The Group's participation is 10% of total capacity. The advance represents 80% of our share out of total planned capital expenditure. Pending finalisation of the structure of the SPV, this amount has been recorded under Capital Advance.

(b) Mainly includes unutilised tax credits and claims receivable from Indirect Tax Authorities.

(c) Includes ₹ 192 Crore (Garepalma mines at Chattisgarh ₹ 74 Crore and Kathautia mines in Jharkhand ₹ 118 Crore) [as at 31/03/2023 ₹ 192 Crore (Garepalma mines ₹ 74 Crore and Kathautia mines ₹ 118 Crore)] towards appropriation of Performance Bank Guarantee by Nominated Authority (NA). Details are given below :

Gare Palma IV/4 (GP-4), Gare Palma IV/5 (GP-5) and Kathautia coal mines were acquired by the Company through auction conducted by the NA constituted under the Ministry of Coal, Government of India. The Company was required to achieve certain efficiency parameters and reach their Peak Rated Capacity (PRC) during FY 2015-16. Performance security in the form of Performance Bank Guarantees (PBG) of ₹ 318 Crore (for GP-4), ₹ 369 Crore (for GP-5) and ₹ 267 Crore (for Kathautia) were provided by the Parent Company to NA in this regard.

Due to the various delays on the part of Government Authorities, PRC was achieved by the Parent Company for GP-4 and GP-5 during the year ended 31/03/2017 and for Kathautia during the year ended 31/03/2018. Having satisfied itself about achievement of efficiency parameters/ PRC, NA returned the PBG in respect of GP-4 on 19/06/2017. However, in a volte face action, vide a letter dated 25/04/2018, NA imposed a penalty equal to 20% of PBG amounting to ₹ 64 Crore for GP-4, ₹ 74 Crore for GP-5 and ₹ 118 Crore for Kathautia. As the PBG for GP-5 is still with NA, it also appropriated an amount equal to the penalty from the PBG of the GP-5 mines. For Kathautia Coal Mines only appropriated amount of ₹ 118 Crore is with NA. In terms of agreement, the Company has not renewed the PBG for remaining amount.

The above actions were contested by the Company. The Hon'ble Chhattisgarh High Court at Bilaspur has already given its judgment in favour of the Company in the matter related to GP-5. As per the judgment, Hon'ble High Court has asked NA to refund the amount appropriated by them and return the PBG to the Company. The NA has filed an appeal before the Hon'ble Supreme Court. For Kathautia Mines, the Company had preferred a petition before Mines Tribunal at Ranchi for quashing of appropriation order and the Tribunal has ordered to refund ₹ 118 Crore after holding that the appropriation order was bad, yet no appeal has been preferred against the order of Tribunal. The Company's appeal to quash the demand raised by NA in case of GP-4 and Kathautia is yet to be decided and is pending before the Mines Tribunal at Bilaspur and Ranchi respectively.

Notes

forming part of the Consolidated Financial Statements

(d) Prepaid expenses includes ₹ 186 Crore (31/03/2023: ₹ 220 Crore) towards surplus Plan Assets of Defined Benefit Plans recognised, Refer Note 14B(I)(i)(a)(iii) and 14B(I)(i)(e)(iii) for further details.

(e) Refer Note 30 for balances with related parties.

8A. Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of finished goods and work in progress includes raw materials, direct labour, other direct costs and related production overheads. Costs of inventories include the transfer from equity any gains/losses on qualifying cash flow hedges for purchases of raw materials.

Cost of raw material and traded goods comprises of Cost of purchases and also include all other costs incurred in bringing the inventories to their present location and condition and are net of rebates and discounts.

The inventories are measured at fair value only in those cases where the Inventories are designated into a fair value hedge relationship.
Cost is determined using the weighted average cost basis. However, the same cost basis is applied to all inventories of a particular class. Inventories of stores and spare parts are valued at weighted average cost basis after providing for cost of obsolescence and other anticipated losses, wherever considered necessary.

Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.
Materials and other supplies held for use in the production of inventories (finished goods, work-in-progress) are not written down below the cost if the finished products in which they will be used are expected to sell at or above cost.

Critical accounting judgement and key sources of estimation uncertainty

Measurement of bulk inventory quantities (such as coal, bauxite, copper concentrates, etc.) lying at yards and work in progress of precious metals at smelter and refinery is material, complex and involves significant judgement and estimates resulting from measuring the surface area, dip measurement of materials in tanks/silos, etc.

The Group performs physical counts of the above inventory on a periodic basis using internal/ external experts to perform volumetric surveys and assessments, basis which the estimate of quantity for these inventories is determined. The variations noted between book records and physical quantities of the above inventories are evaluated and appropriately accounted in the books of accounts.

The details of inventories outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024			As at 31/03/2023		
	In Hand	In Transit	Total	In Hand	In Transit	Total
Raw Materials	5,947	5,319	11,266	7,606	5,036	12,642
Work-in-Progress	18,219	79	18,298	18,589	246	18,835
Finished Goods	6,884	298	7,182	7,447	294	7,741
Stock-in-Trade	14	-	14	20	-	20
Stores and Spares	3,110	34	3,144	2,884	82	2,966
Coal and Fuel	845	63	908	558	196	754
	35,019	5,793	40,812	37,104	5,854	42,958

(a) The Group has applied fair value hedge accounting on copper, gold and silver inventories which forms part of Work-in-Progress and Finished Goods. Fair value hedges are mainly used to hedge the exposure to the change in fair value of commodity price risks. The fair value adjustment remains part of the carrying value of inventory and is taken to the Statement of Consolidated Profit and Loss when the inventory is either sold or consumed, Refer Note 5D(a), 5D(i) and 5D(j) for further details.

(b) For Inventories hypothecated against secured short-term borrowings, Refer Note 12B.

(c) Write down of inventories (net of reversal) to net realizable value related to raw materials, work-in-progress and finished goods amounted to ₹ 593 Crore (31/03/2023: ₹ 588 Crore). The movement in write down of inventories (net of reversal) to net realizable value are recognized as expense and included in 'Cost of Material Consumed' and 'Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade' in the Consolidated Statement of Profit and Loss.

(d) Inventories in hand include bulk material of coal, bauxite and copper concentrate lying at yards, mines, plants, precious metals of gold and silver lying at smelter and refinery aggregating to ₹ 3,990 Crore (31/03/2023: ₹ 4,232 Crore)

8B. Changes in inventories of finished goods, work-in-progress and stock-in-trade

(₹ Crore)

	Opening Inventories		Closing Inventories		Net Change	
	As at		As at		Year ended	
	01/04/2023	01/04/2022	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Work-in-progress	18,835	20,434	18,298	18,835	537	1,599
Finished goods	7,741	7,180	7,182	7,741	559	(561)
Stock-in-trade	20	884	14	20	6	864
	26,596	**28,498**	**25,494**	**26,596**	**1,102**	**1,902**
Currency translation adjustment (Net)					227	1,339
					1,329	**3,241**

9. Non-current assets or disposal group classified as held for sale

Non-Current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-Current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell except for those assets that are specifically exempt under relevant Ind AS. Once the assets are classified as "Held for sale", those are not subjected to depreciation till disposal.
An impairment loss is recognised for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell.

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Assets or Disposal Group Classified as Held for Sale		
Non-Current Assets classified as held for sale - (a)	44	51
	44	**51**
(a) Details of Assets classified as held for sale - (i), (ii), (iii)		
Land and Building	-	-
Plant and Equipment	44	51
	44	**51**

(i) During the current year, the Group has classified certain pots in one of its smelters as 'held for sale' (carrying amount ₹ 15 Crore). These pots were not in operation due to various technological challenges. Further, major components have deteriorated over the period and are beyond repair or revival.

(ii) During the year ended 31/03/2023, the Group had written back impairment loss on determination of realizable value (Net of cost to sales) of certain equipment and accessories classified as held for sale amounting to ₹ 12 Crore. Portion of such equipments are disposed over the period and the carrying amount of remaining assets is ₹ 6 Crore (year ended 31/03/2023 ₹ 7 Crore).

(iii) Include ₹ 11 Crore (31/03/2023: ₹ 30 Crore) relating to one of the hydroelectric power generation facilities in South America, Brecha and land and building of Binh Duong plant in Vietnam. As of March 31, 2024, the Group has recorded impairment on assets held for sale amounting to ₹ 25 Crore ($2.5 million) (31/03/2023: ₹ Nil).

(b) The fair value of the assets held for sale approximates the carrying value.

(c) The Company is in the process of disposing the above assets.

10. Equity share capital

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

Ordinary shares

Ordinary shares of the Company are classified as equity share capital and are accounted for at par value. Any value realised over and above par value upon issuance of equity shares are accounted for as 'Securities Premium' under other equity. Incremental costs directly attributable to the issuance of new ordinary shares, share options and buyback are recognized as a deduction from other equity, net of any tax effects.

Treasury shares

Treasury shares are the own equity instruments of the Company that are re-acquired by the Company. Treasury shares are recognised at cost and the par value of treasury shares is reduced from equity share capital whereas the difference between cost and par value is deducted from treasury shares held by ESOP trust under other equity. No gain or loss is recognised in the statement of profit or loss on the purchase, sale, issue, or cancellation of the Company's own equity instruments. Any difference between the carrying amount and the consideration, if reissued, is recognised in Securities premium. Treasury shares are allotted towards exercise of share options.

(₹ Crore)

	Numbers as at		As at	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Authorized				
Equity Shares of ₹ 1/- each	2,500,000,000	2,500,000,000	250	250
Redeemable Cumulative Preference Shares of ₹ 2/- each	25,000,000	25,000,000	5	5
			255	255
Issued				
Equity Shares of ₹ 1/- each - (a)	2,247,770,169	2,247,748,231	225	225
			225	225
Subscribed and Paid-up				
Equity Shares of ₹ 1/- each fully paid-up	2,247,762,772	2,247,740,834	225	225
Less: Face Value of Equity Shares forfeited	(546,249)	(546,249)	-	-
Add: Forfeited Shares (Amount originally Paid-up)	-	-	-	-
	2,247,216,523	2,247,194,585	225	225
Less: Treasury Shares				
Equity Shares - (b)(i)	(16,316,130)	(16,316,130)	(2)	(2)
Equity Shares - (b)(ii)	(10,276,885)	(9,219,067)	(1)	(1)
	2,220,623,508	**2,221,659,388**	**222**	**222**

(a) Issued Equity Share Capital as at 31/03/2024 includes 7,397 Equity Shares (31/03/2023: 7,397) of ₹ 1/- each issued on Rights basis kept in abeyance due to legal case pending.

(b) Treasury shares include:

(i) Shares held by Trident Trust which represents equity shares of ₹ 1/- each fully paid-up of the Company issued, pursuant to a Scheme of Arrangements approved by the Hon'ble High Courts of Mumbai and of Allahabad, vide their Orders dated October 31, 2002, and November 18, 2002, respectively, to the Trident Trust, created wholly for the benefit of the Company and is being managed by trustees appointed by it. The Company in its Board meeting held on November 10, 2023 has extended Tenure of trust until instruction of expiry/ termination of term.

(ii) Shares held by Hindalco Employee Welfare Trust (ESOP Trust) which represents equity shares of ₹ 1/- each fully paid-up of the Company. The Trust buys shares of the Company from the market, for issuing shares to employees pursuant to the Employees Stock Option Scheme (ESOS), 2018 and 2022. Refer note 11(d)(ix) for further details.

Notes

forming part of the Consolidated Financial Statements

(c) Reconciliation of shares outstanding at the beginning and at the end of the reporting period:

(₹ Crore)

	Numbers as at		As at	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Equity Shares outstanding at the beginning of the year	2,221,659,388	2,223,791,597	222	222
Equity shares allotted pursuant to exercise of ESOS 2006 & 2013	21,938	21,861	-	-
Equity shares allotted pursuant to exercise of ESOS 2018 through Hindalco Employee Welfare Trust	1,379,666	801,930	-	-
Equity shares purchased by Hindalco Employee Welfare Trust from market pursuant to ESOS 2018 and 2022	(2,437,484)	(2,956,000)	-	-
Equity Shares outstanding at the end of the year	2,220,623,508	2,221,659,388	222	222

(d) The Company has one class of equity shares having a par value of `1/- per share. Each shareholder is eligible for one vote per share held. The dividend proposed by the Board of Directors is subject to the approval of the shareholders in the ensuing Annual General Meeting, except in case of interim dividend. In the event of liquidation, the equity shareholders are eligible to receive the remaining assets of the Company after distribution of all preferential amounts, in proportion to their shareholding.

(e) Details of shareholders holding more than 5% Equity Shares in the Company on reporting date:

(₹ Crore)

	Numbers of Shares heldas at		Percentage of Holding *as at	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023
IGH Holdings Private Limited	350,088,487	350,088,487	15.58%	15.58%
Birla Group Holdings Private Limited	228,292,308	228,292,308	10.16%	10.16%
Life Insurance Corporation of India and its Associates	148,391,917	216,823,769	6.60%	9.65%

* Percentage have been calculated on the basis of total number of shares outstanding (before adjusting Treasury shares referred in footnote (b) above)

(f) Shares held by promoters at the end of the year and Movement:

Promoter's Name $	No. of Sharesas at 31/03/2024	Percentage of total shares*	No. of Sharesas at 31/03/2023	Percentage of total shares*	% Change during the Year
Kumar Mangalam Birla	901,635	0.04%	901,635	0.04%	-
Birla Group Holdings Private Limited	228,292,308	10.16%	228,292,308	10.16%	-
Total	**229,193,943**		**229,193,943**		

$ Promoter here means promoter as defined in Section 2(69) of the Companies Act, 2013.

* Percentage have been calculated on the basis of total number of shares outstanding (before adjusting Treasury shares referred in footnote (b) above)

(g) Shares reserved for issue under options:

The Company has reserved equity shares for issue under the Employee Stock Option Schemes. (Refer Note 14(B) (II) for details of Employee Stock Option Scheme)

(h) The Company during the preceding 5 years:

(i) Has not allotted shares pursuant to contracts without payment received in cash.

(ii) Has not issued shares by way of bonus shares.

(iii) Has not bought back any shares.

(i) Details of Struck off entities holding equity shares in the Company is as under:

S. No.	Name of the Struck off Companies	Number of shares held as at	Paid-up as at (₹)	Paid-up as at (₹)
		31/03/2024	31/03/2024	31/03/2023
1	Siddha Papers Private Limited	5	5	5
2	Vaishak Shares Limited	1	1	1
3	Alike Trading Private Limited	50	50	50
4	Fayda Portfolio Private Limited	100	100	100
5	Kothari Intergroup Limited	1	1	1
6	Arunoday Holdings Private Limited	4,645	4,645	6,551
7	Dreams Broking Private Limited	5	5	5
8	Ambica Multifibres Limited	10,714	10,714	10,714
9	Tangmarg Investment And Trading Private Limited	1,525	1,525	1,525
10	Central Investment Private Limited	5,820	5,820	5,820
11	Nacon Software Services Private Limited	1,500	1,500	1,500
12	Murli Tie- Up Private Limited	46	46	46
13	Architectural Glass Private Limited	60	60	60
14	Gnk Investments Private Limited	200	200	200

Notes

forming part of the Consolidated Financial Statements

11. Other equity

Details of other equity outstanding are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Share Application Money pending Allotment	-	-
Equity Component of Other Financial Instruments	4	4
Reserve and Surplus		
Capital Reserve	147	147
Capital Redemption Reserve	104	104
Business Reconstruction Reserve	5,799	5,799
Securities Premium	8,235	8,234
Debenture Redemption Reserve	-	-
Employees Stock Options	137	108
Treasury Shares held by ESOP Trust	(377)	(306)
Special Reserve	21	20
General Reserve	21,370	21,370
Retained Earnings	57,556	48,216
	92,992	83,692
Other Reserves		
Gain/ (Loss) on Equity Instruments FVTOCI	7,391	4,910
Gain/ (Loss) on Debt Instruments FVTOCI	(9)	(14)
Effective portion of Cash Flow Hedge	(170)	456
Cost of Hedging Reserve	(20)	3
Trade receivables through Other Comprehensive Income/(loss)	(54)	-
Foreign Currency Translation Reserve	5,790	5,533
	12,928	10,888
	105,924	**94,584**

(a) Movement of each item of other equity is presented in Consolidated Statement of Changes in Equity.

(b) Shareholders of the Company approved final dividend of ₹ 3 per fully paid-up equity share aggregating to ₹ 667 Crore (net of dividend on treasury shares) for the year ended 31/03/2023 which was paid during this financial year.

(c) The Board of Directors of the Company has recommended dividend of ₹ 3.50 per fully paid-up equity share aggregating to ₹ 777 Crore (net of dividend on treasuary shares) for the year ended 31/03/2024 which has not been recognised in the consolidated financial statements, and is subject to the approval of shareholders in the Annual General Meeting.

(d) **Brief description of items of other equity are given below:**

(i) **Share application money pending allotment**

Share application money pending allotment represents amount received from employees who have exercised Employee Stock Option Scheme (ESOS) for which shares are pending allotment as on balance sheet date.

(ii) **Equity component of other financial instruments**

It represents fair valuation gain of inter-corporate deposits taken in earlier years by Associate entities on transition to Ind AS.

(iii) **Capital reserve**

The Group has created capital reserve pursuant to past mergers and acquisitions. Details of capital reserve over the years are mentioned below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Forfeiture of preferential share warrants during the year ended 31/03/2009	139	139
Other transactions over the years	8	8
	147	**147**

(iv) **Capital Redemption Reserve**

The Group has created capital redemption reserve as per the requirement of the Companies Act. Details of capital redemption reserve over the years are mentioned below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Pursuant to scheme of amalgamation of Indo Gulf Corporation Ltd. with Hindalco Industries Limited during the year ended 31/03/2003	100	100
Other transactions over the years	4	4
	104	**104**

(v) **Business reconstruction reserve**

The Company had formulated a scheme of financial restructuring under sections 391 to 394 of the Companies Act 1956 ("the Scheme") between the Company and its equity shareholders approved by the High Court of judicature of Bombay to deal with various costs associated with its organic and inorganic growth plan of the Group (including subsidiaries). Pursuant to this, a separate reserve account titled as Business Reconstruction Reserve ("BRR") was created during the year 2008-09 by transferring balance standing to the credit of Securities Premium Account of the Company for adjustment of certain expenses as prescribed in the Scheme.

(vi) **Securities premium**

Securities premium reserve is used to record the premium on issue of shares. The reserve is utilized in accordance with the provision of the Companies Act.

(vii) **Debenture redemption reserve**

The Group is required to create a debenture redemption reserve out of the profits which is available for payment of dividend, for the purpose of redemption of debentures.

(viii) **Employees stock options**

The employee stock option account is used to recognize the grant date fair value of options issued to employees under stock option schemes.

Notes

forming part of the Consolidated Financial Statements

(ix) **Treasury shares held by ESOP trust**

The Company has created a trust, namely "Hindalco Employee Welfare Trust"(ESOP Trust) for providing share-based payments to its employees (including its Subsidiaries' employees) The Company uses this Trust as a vehicle for distributing shares to employees covered under Scheme. The Trust buys shares of the Company from the market, for giving shares to employees under the Employees Stock Option Schemes, 2018 and 2022.

(x) **Special Reserve**

Certain subsidiaries of the Group are registered as non-banking financial company and as per requirement of Section 45-IC of the Reserve Bank of India Act, 1934 every non-banking financial company shall create a reserve fund and transfer therein a sum not less than twenty per cent of its net profit every year as disclosed in the profit and loss account and before any dividend is declared. This reserve is being created in Renuka Investments and Finance Limited and Lucknow Finance Company Limited.

(xi) **General Reserve**

The Group has created this reserve by transferring certain amount out of the profit at the time of distribution of dividend in the past.

(xii) **Retained Earnings**

Amount of retained earnings represents accumulated profit and losses of the Group as on reporting date. Such profits and losses are after adjustment of payment of dividend, transfer to any reserves as statutorily required and adjustment for realised gain/loss on derecognition of equity instruments measured at FVTOCI. Actuarial Gain/ Loss arising out of Actuarial valuation is immediately transferred to Retained Earnings.

(xiii) **Gain/(Loss) on Equity and Debt Instruments FVTOCI**

The Group has elected to recognize changes in the fair value of certain investments in other comprehensive income. These changes are accumulated within the FVTOCI equity investments reserve and FVTOCI debt investment reserve within equity.

(xiv) **Effective portion of Cash Flow Hedge**

The Group uses hedging instruments as part of its risk management policy for commodity and foreign currency risk as described in Note 34. The Cash Flow hedging reserve is used to recognise the effective portion of gain or loss on designated hedging relationship, Refer Note 5D (f) and 5D (g).

(xv) **Cost of Hedging Reserve**

The Group designates the spot component of some of its derivative instruments in fair value hedge relationship and cash flow hedge relationship. The Group defers changes in the forward element of cross currency interest rate swap in the cost of hedging reserve. For fair value hedge forward points at inception is amortized on a straight line basis from OCI based on the remaining life of trade. For cash flow hedge the deferred cost of hedging are included in the initial cost of the related hedged items when it is recognized or reclassified to the Consolidated Statement of Profit and Loss when the hedged item effects the Consolidated Statement of Profit and Loss. The Group also designates the intrinsic value of the option contracts whereas the time value of option contracts is included in the cost of hedging reserve, Refer Note 5D (f) and 5D (g).

(xvi) **Trade receivables through Other Comprehensive Income/(loss)**

The Group measures certain trade receiveables at fair value through other comprehensive income. These changes are accumulated within the fair value through other comprehensive income and are reclassified to the Statement of Profit and Loss on realisation.

(xvii) **Foreign Currency Translation Reserve**

Foreign Currency Translation reserve includes all resulting exchange differences arising from (a) translating the assets and liabilities of the Group's foreign operations into Indian Rupees using exchange rates prevailing at the end of each reporting period and (b) translating income and expense items of the foreign operations at the average exchange rates for the period.

At the time of transition to IndAS, as per Ind-AS 101, the Group has opted to transfer the entire amount accumulated in foreign currency translation reserve (FCTR) as per previous GAAP to retained earnings on the transition date. Due to which the gain or loss in FCTR of any foreign operation excludes translation difference that arose before the date of transition to IndAS but include later translation difference.

12. Financial Liabilities

Financial liabilities are classified as either financial liabilities at FVTPL or financial liabilities at amortised cost.

Financial Liabilities are measured at fair value through profit and loss (FVTPL) when it is either held for trading or it is designated as at FVTPL.

It is classified as held for trading if:

1) it has been acquired or incurred principally for the purpose of repurchasing it in the near term; or

2) on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and for which there is evidence of a recent actual pattern of short-term profit-taking; or

3) it is a derivative that is not designated and effective as a hedging instrument.

A financial Liabilities other than those held for trading may also be designated as at FVTPL upon initial recognition if:

1) such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or

2) it forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the Group is provided internally on that basis; or

3) it forms part of a contract containing one or more embedded derivatives, and Ind-AS 109 Financial Instruments permits the entire combined contract to be designated as at FVTPL.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on re-measurement recognised in the consolidated statement of profit and loss, except for the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability which is recognised in other comprehensive income. Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs. Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

De-recognition of financial liabilities

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit or loss.

Notes

forming part of the Consolidated Financial Statements

12A. Borrowings, Non-Current

(₹ Crore)

Particulars	As at 31/03/2024			As at 31/03/2023		
	Non-Current Portion	Current Maturities #	Total	Non-Current Portion	Current Maturities #	Total
Secured						
Term Loans:						
From Banks						
Rupee Term Loans - (b)	7,123	-	7,123	11,559	50	11,609
Foreign Currency Term Loans - (c)	9,979	108	10,087	9,978	106	10,084
	17,102	108	17,210	21,537	156	21,693
Unsecured						
Non Convertible Debentures - (a)	-	-	-	-	699	699
Senior Notes - (d)	29,947	-	29,947	29,445	-	29,445
Term Loans:						
From Banks						
Foreign Currency Term Loans - (e)	346	92	438	452	482	934
Deferred Payment Liabilities - (f)	-	-	-	-	10	10
	30,293	92	30,385	29,897	1,191	31,088
	47,395	**200**	**47,595**	**51,434**	**1,347**	**52,781**

Current maturities of non-current borrowings have been disclosed under "Borrowings, Current", Refer Note 12B.

(a) Non Convertible Debentures comprise of following:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023		End Date
	Gross Amount	Carrying Value	Gross Amount	Carrying Value	
Unsecured - (i)					
70,000 7.60% Redeemable Non-Convertible Debentures of ₹ 1 lakh each	-	-	700	699	-
	-	-	700	699	

(i) During the previous year, the Group had issued 70,000 7.60% Redeemable Non-Convertible Debentures amounting to ₹ 700 Crore maturing on March 18, 2024 for working capital requirement. These Non-Convertible debt securities has been issued to comply with provisions of SEBI Circular No. SEBI/HO/DDHS/CIR/P/2018/144 dated November 26, 2018 related to listed large corporates. The entire proceeds from issue of non-convertible debentures were utilized for the purpose mentioned in the Debenture Trust Deed. During the current year, the Group has repaid the entire amount outstanding on the date of maturity.

(b) **Secured Rupee Term Loans from Banks comprise of following:**

(₹ Crore)

		Rate of Interest (applicable as on 31/03/2024)	As at 31/03/2024		As at 31/03/2023		End Date
			Gross Amount	Carrying Value	Gross Amount	Carrying Value	
Axis Bank		Repo Rate + 180 bps*	619	603	619	603	31/03/2030
State Bank of India		MCLR 3 Month + 10 bps	2,114	2,104	2,239	2,228	31/03/2030
Rupee Term Loans - (A)	**(I)**		2,733	2,707	2,858	2,831	
State Bank of India		MCLR 3 Month + 10 bps	3,285	3,282	4,672	4,665	01/09/2030
Punjab National Bank		Repo Rate + 180 bps*	180	181	256	258	01/09/2030
Axis Bank		Repo Rate + 180 bps*	964	953	1,371	1,355	01/09/2030
Rupee Term Loans - (B)	**(II)**		4,429	4,416	6,299	6,278	
State Bank of India		-	-	-	2,500	2,500	
Rupee Term Loans - (C)	**(III)**		-	-	2,500	2,500	-
Total Rupee Term Loans - (A+B+C)			7,162	7,123	11,657	11,609	

*Interest rates as at 31/03/2023 were Repo Rate + 160 bps.

The Borrowings are subsequently measured at amortised cost and interest accrued thereon is included in Note 12C - Other Financial Liability.

^ **Definition of abbreviation used**

i) 100 basis points (bps) is equal to 1%

ii) Repo rate is the rate at which RBI lends funds to commercial banks in India

iii) Marginal Cost of funds based Lending Rate (MCLR) is a tenor-linked internal benchmark rate of respective banks in India

(I) The term loans from banks are secured by a first ranking charge/ mortgage/ security interest in respect of all the movable and immovable items of Property, Plant and Equipment of Mahan Aluminium plant, both present and future, carrying value ₹ 10,686 Crore (as at 31/03/2023 ₹ 10,861 Crore), Refer note 3A. During the year, the Group has prepaid ₹ 125 Crore to State Bank of India which were originally scheduled to be repaid during December 2025 to March 2026. Term loan amounting to ₹ 2,733 Crore (gross) (31/03/2023: ₹ 2,858 Crore) is to be repaid in 16 quarterly instalments commencing from June 2026.

(II) The term loan is secured by a first ranking charge/ mortgage/security interest in respect of all the movable and immovable items of Property, Plant and Equipment of Aditya Aluminium plant both present and future, carrying value of ₹ 11,106 Crore (as at 31/03/2023 ₹ 11,320 Crore), Refer note 3A. During the year, the Group has prepaid ₹ 1,387 Crore to State Bank of India, ₹ 407 Crore to Axis Bank and ₹ 76 Crore to Punjab National Bank which were originally scheduled to be repaid during June 2024 to March 2026. Term loan amounting to ₹ 4,429 Crore (gross) (31/03/2023: ₹ 6,299 Crore) is to be repaid in 18 quarterly instalments commencing from June 2026.

(III) The Group had borrowed secured rupee term loan from State Bank of India amounting ₹ 2,500 Crore (gross) in March 2022. During the year, the entire term loan has been prepaid which were originally scheduled to be repaid in 34 quarterly instalments commencing from October 2023 till January 2032.

Notes

forming part of the Consolidated Financial Statements

(c) **Secured Foreign Currency Term Loans from Banks comprise of following:**

(₹ Crore)

Particulars	Rate of Interest (applicable as on 31/03/2024)	As at 31/03/2024			As at 31/03/2023			End Date
		Non-Current Portion	Current Maturities #	Total	Non-Current Portion	Non-Current Portion	Current Maturities #	
2020 Term Loans	-	-	-	-	752	745	6,111	-
2021 Term Loans	SOFR + 200 bps	485	480	3,998	490	484	3,973	31/03/2028
2023 Term Loans	SOFR + 165 bps	746	731	6,089	-	-	-	25/09/2026
		1,231	**1,211**	**10,087**	**1,242**	**1,229**	**10,084**	

(i) **Floating rate Term Loan facility**

2020 Term Loans:

In April 2020, Novelis Acquisitions LLC borrowed ₹ 5,892 Crores ($775 million) under the Group's existing secured term loan credit agreement ("Term Loan Facility") prior to its merger into Aleris Corporation.

During financial year 2024, Novelis Acquisitions LLC. made ₹ 3,987 Crores ($482 million) in principal payments beyond its scheduled quarterly amortization payments on our 2020 Term Loans, using the proceeds of our 2023 Term Loans, as defined below.

2021 Term Loans:

In March 2021, Novelis borrowed ₹ 3,649 Crores ($480 million) of term loans due March 2028 (the "2021 Term Loans") under our Term Loan Facility, with an additional ₹ 149 Crores ($20 million) being borrowed under the 2021 Term Loans in April 2021. The 2021 Term Loans mature on March 31, 2028 and are subject to 0.25% quarterly amortization payments. The 2021 Term Loans accrue interest at LIBOR plus 2%. The proceeds of the 2021 Term Loans were applied to repay a portion of the 2017 Term Loans. Beginning with the interest period commencing June 30, 2023, the 2021 Term Loans accrues interest at Adjusted SOFR plus 2%.

As of March 31, 2024, the outstanding amount on 2021 Term Loans facility is ₹ 3,998 Crores ($480 million) net of debt issuance cost of ₹ 45 Crores ($5 million).

2023 Term Loans

In September 2023, Novelis amended the Term Loan Facility and borrowed ₹ 6,201 Crores ($750 million) of term loans (the "2023 Term Loans"). The proceeds of the 2023 Term Loan were used to repay loans due January 2025. The 2023 Term Loans mature on September 25, 2026, subject to 0.25% quarterly amortization payments and accrue interest at SOFR plus 1.65%.

As of March 31, 2024, the outstanding amount on 2023 Term Loans facility is ₹ 6,089 Crores ($731 million) net of debt issuance cost of ₹ 30 Crores ($4 million). In accordance with Ind AS 109, the amendment was accounted for as a partial extinguishment of the 2020 Term Loans, whereby ₹ 3,997 Crores ($482 million) of the ₹ 6,201 Crores ($750 million) outstanding at the time of the transaction was deemed an extinguishment and ₹ 2,214 Crores ($268 million) was deemed a modification of debt. As a result of this transaction, we recorded a loss on extinguishment of debt of ₹ 44 Crores ($5 million) in the second quarter of fiscal 2024 and modification gain of ₹ 98 Crores ($12 million).

All the above term loans of Novelis are part of its senior secured credit facilities, which are guaranteed by its direct parent, AV Minerals, and certain direct and indirect subsidiaries of Novelis and are secured by a pledge of substantially all of the assets, including Intangible Assets but excluding Right-of-Use Assets, of Novelis and the guarantor.

(d) **Unsecured Senior Notes comprise of following:**

(₹ Crore)

	Rate of Interest (applicable as on 31/03/2024)	As at 31/03/2024			As at 31/03/2023			End Date
		Gross Amount ($ in Million)	Carrying Value ($ in Million)	Carrying Value (₹ Crore)	Gross Amount ($ in Million)	Carrying Value ($ in Million)	Carrying Value (₹ Crore)	
2026 Senior Notes	3.25%	750	739	6,157	750	735	6,042	30/11/2026
2029 Senior Notes	3.38%	540	533	4,444	543	535	4,393	30/04/2029
2030 Senior Notes	4.75%	1,600	1,582	13,189	1,600	1,578	12,968	31/01/2030
2031 Senior Notes	3.88%	750	739	6,157	750	735	6,042	31/08/2031
		3,640	**3,593**	**29,947**	**3,643**	**3,583**	**29,445**	

2026 Senior Notes & 2031 Senior Notes

In August 2021, Novelis Corporation, a wholly owned subsidiary of Novelis Inc., issued ₹ 5,563 Crores ($750 million) in aggregate principal amount of 3.250% Senior Notes due November 2026 (the "2026 Senior Notes"). The 2026 Senior Notes mature on November 15, 2026 and are subject to semi-annual interest payments that will accrue at a rate of 3.250% per year. The net proceeds of the offering, together with cash on hand, were used to (i) fund the redemption of a portion of the 5.875% Senior Notes due September 2026, plus the redemption premium and accrued and unpaid interest thereon and (ii) pay certain fees and expenses in connection with the foregoing and the offering of the notes.

In August 2021, Novelis Corporation, a wholly owned subsidiary of Novelis Inc., issued ₹ 5,563 Crores ($750 million) in aggregate principal amount of 3.875% Senior Notes due August 2031 (the "2031 Senior Notes"). The 2031 Senior Notes mature on August 15, 2031 and are subject to semi-annual interest payments that will accrue at a rate of 3.875% per year. The net proceeds of the offering, together with cash on hand, were used to (i) fund the redemption a portion of the 4.750% Senior Notes due September 2026, plus the redemption premium and accrued and unpaid interest thereon and (ii) pay certain fees and expenses in connection with the foregoing and the offering of the notes.

As of March 31, 2024 outstanding amount on 2026 Senior Notes and 2031 Senior Notes is ₹ 6,157 Crores each ($739 million), respectively.

2029 Senior Notes

In March 2021, Novelis Sheet Ingot GmbH, an indirect wholly owned subsidiary of Novelis Inc., organized under the laws of Germany, issued ₹ 4,299 Crores (€500 million) in aggregate principal amount of 3.375% Senior Notes due April 2029 (the "2029 Senior Notes"). The 2029 Senior Notes are subject to semi-annual interest payments and mature on April 15, 2029. The proceeds were used to pay down a portion of the 2017 Term Loans, plus accrued and unpaid interest. In addition, we intend to allocate an amount equal to the net proceeds received from this issuance to finance and/or refinance new and/or existing eligible green projects, which are currently contemplated to consist of renewable energy or pollution prevention and control type projects.

As of March 31, 2024, outstanding amount on 2029 Senior Notes is ₹ 4,444 Crores ($533 million) net of debt issuance cost of ₹ 59 Crores ($7 million).

2030 Senior Notes

In January 2020, Novelis Corporation, an indirect wholly owned subsidiary of Novelis Inc., issued ₹ 11,704 Crores ($1.6 billion) in aggregate principal amount of 4.750% Senior Notes due January 2030 (the "2030 Senior Notes"). The 2030 Senior Notes are subject to semi-annual interest payments and mature on January 30, 2030.

As of March 31, 2024 outstanding amount on 2030 Senior Notes is ₹ 13,189 Crores ($1.6 billion) net of debt issuance cost of ₹ 150 Crores ($18 million).

Notes

forming part of the Consolidated Financial Statements

(e) **Unsecured Foreign Currency Term Loan from Banks comprise of following:**

(₹ Crore)

	Rate of Interest (applicable as on 31/03/2024)	As at 31/03/2024			As at 31/03/2023			End Date
		Gross Amount (in Million)	Carrying Value (in Million)	Carrying Value (₹ Crore)	Gross Amount (in Million)	Carrying Value (in Million)	Carrying Value (₹ Crore)	
Bank of China Term Loan	3.90%	CNY 380	CNY 380	438	CNY 440	CNY 440	524	31-08-2027
Brazil Loan	-	-	-	-	$ 30	$ 30	246	-
Brazil Loan	-	-	-	-	$ 20	$ 20	164	-
				438			**934**	

Bank of China Term Loan

In September 2019, we entered into a credit agreement with the Bank of China to provide up to CNY 500 million in unsecured loans to support previously announced capital expansion projects in China. As of March 31, 2024, we had ₹ 438 Crores ($53 million/CNY 380 million) of borrowings on our China bank loans.

Brazil Loans

In the third quarter of fiscal 2022, we borrowed ₹ 237 Crores ($30 million) and ₹ 158 Crores ($20 million) of bank loans due June 16, 2023 and December 15, 2023, respectively.These bank loans were subject to 1.80% interest due in full at the respective maturity date.

The entire loan is fully repaid as at March 31, 2024.

(f) **Deferred Payment Liabilities**

On July 23, 2018, Novelis Switzerland, an indirectly wholly owned subsidiary of Novelis Inc acquired real and personal property from Constellium Valais SA for ₹ 1,855 crores ($249 million). The entire balance was paid through December 2023.

12B. Borrowings, current

(₹ Crore)

	As at 31/03/2024	As at 31/03/2023
Secured		
Loans from banks		
Rupee loans - (a), (b)	13	6
Foreign currency loans - (c)	4,270	3,804
Loans from others		
Foreign currency loans	-	4
	4,283	**3,814**
Unsecured		
Loans from banks		
Foreign currency loans - (d), (e), (f), (g), (h)	2,623	1,740
	2,623	1,740
Current maturities of long-term borrowings, Refer Note 12 (A)	200	1,347
	7,106	**6,901**

(a) Working Capital loan for Aluminium business, granted under the Consortium Lending Arrangement, are secured by a first pari-passu charge on entire stock of raw materials, work-in-process, finished goods, consumable stores and spares and also book debts pertaining to the Company's Aluminium business, both present and future. Working Capital loan for the Copper business is secured by a first pari passu charge on stock of raw materials, work-in-process, finished goods and consumable stores and spares and also book debts and other movable assets of Copper business, both present and future. (Refer Note 8A(b)) and 5F(b))

(b) Cash Credit facilities for Utkal Alumina International Limited (Utkal) with banks are availed under the consortium lending arrangement and are secured by (a) first pari-passu charge by hypothecation of investments classified as "held for trading", entire stocks of raw materials, semi-finished and finished goods, consumable stores and spares, investments classified as "available for sale", stock-in trade and book debts pertaining to Utkal's business, both present and future and (b) second charge on Utkal's fixed assets. The borrowings carry floating interest rate at MCLR (ranging from 3 months to one year) + Spread (ranging from 15 bps to 55 bps)

(c) Foreign Currency Loans represents amount of ABL Revolver credit facility in Novelis. The loan carry interest rate SOFR + 1.00% plus spread of 0.10% to 0.60%.

As of 31/03/2024, the revolver had a ₹ 4,270 Crore ($512 million) balance; and ₹ 462 Crore ($55 million) was utilized for letters of credit. There was ₹ 7,118 Crore ($854 million) in remaining availability, including ₹ 1,831 Crore ($220 million) of remaining availability that can be utilized for letters of credit, and the Group is in compliance with the covenants of our ABL Revolver facility.

(d) Foreign currency loans from Indian Banks and Offshore branch of Foreign banks are mainly in nature of Buyers credit which has been availed for Copper business meet its working capital requirement mostly to settle import payments of copper concentrate and certain other raw materials. Outstanding amount to these loan is ₹ 513 Crore (31/03/2023: Nil) Refer Note 5D (c) on non derivative financial instruments used as hedging instruments.

(e) As of March 31, 2024, outstanding balance from China loans amounted to ₹ 388 Crores ($47 million).

(f) As of March 31, 2024, outstanding balance from Brazil loans amounted to ₹ 1,667 Crores ($200 million).

(g) In December 2014, Novelis China entered into a revolving facility. As of March 31, 2024, the terms on this facility have been renegotiated and currently we have availability of ₹ 231 Crores ($28 million).

(h) As of March 31, 2024, Novelis has ₹ 1,052 Crores ($126 million) availability under our Novelis Korea revolving credit facilities.

(i) **Net debt reconciliation:**

Movement of net debt for the year ended March 31, 2024:

(₹ Crore)

Particulars	Other Assets - Cash and Cash Equivalents	Liabilities from financing activities			Net
		Total Borrowings	Lease Liabilities	Supplier's Credit^	
Balance as at April 01, 2023 #	12,838	58,736	1,956	5,704	53,558
Cash Flows (Net) @	(1,037)	(4,473)	(500)	(1,166)	(5,102)
Additions	-	3	413	-	415
Foreign Exchange Adjustments	9	449	7	6	453
Fair Value Changes - (Refer Note 33 (b)(ii))	-	(48)	-	-	(48)
Debt Issuance Costs and Amortization (Net)	-	56	-	-	56

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

Particulars	Other Assets - Cash and Cash Equivalents	Liabilities from financing activities			Net
		Total Borrowings	Lease Liabilities	Supplier's Credit^	
Interest Expense **	-	3,419	107	339	3,865
Interest Paid **	-	(3,244)	(89)	(353)	(3,686)
Disposal/Modification/Reassessment	-	-	(32)	-	(32)
Other Changes	-	-	(5)	-	(6)
Balance as at March 31, 2024 #	**11,810**	**54,898**	**1,855**	**4,530**	**49,473**
Accrued Interest as at 31/03/2024	-	(397)	-	(55)	(452)
Temporary book overdraft balances as at 31/03/2024	6	-	-	-	(6)
Balance as at March 31, 2024 as per Balance sheet	**11,816**	**54,501**	**1,855**	**4,475**	**49,015**

Movement of net debt for the year ended March 31, 2023:

(₹ Crore)

Particulars	Other Assets - Cash and Cash Equivalents	Liabilities from financing activities			Net
		Total Borrowings	Lease Liabilities	Supplier's Credit^	
Balance as at April 01, 2022 #	11,639	64,113	1,251	2,456	56,181
Cash Flows (Net) @	742	(8,194)	(512)	3,214	(6,234)
Additions	-	-	1,148	-	1,148
Foreign Exchange Adjustments	457	3,203	149	(32)	2,863
Fair Value Changes - (Refer Note 33 (b)(ii))	-	(73)	-	-	(73)
Debt Issuance Costs and Amortization (Net)	-	68	-	-	68
Interest Expense **	-	3,310	88	140	3,538
Interest Paid **	-	(3,696)	(66)	(74)	(3,836)
Disposal/Modification/Reassessment	-	-	(94)	-	(94)
Other Changes/Reclassification	-	5	(8)	-	(3)
Balance as at March 31, 2023 #	**12,838**	**58,736**	**1,956**	**5,704**	**53,558**
Accrued Interest as at 31/03/2023	-	(401)	-	(69)	(470)
Temporary book overdraft balances as at 31/03/2023	2	-	-	-	(2)
Balance as at March 31, 2023 as per Balance sheet	**12,840**	**58,335**	**1,956**	**5,635**	**53,086**

@ Include temporary overdraft balances in current accounts

Borrowing include Interest accrued on borrowings and current maturities of related borrowings.

** Interest expenses and interest paid relates to borrowings and lease liabilities before interest capitalisation.

^ For supplier credit refer note 12D below.

12C. Other financial liabilities

Details of other financial liabilities outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non Current	Current	Non Current	Current
Derivative matured, pending settlement	-	216	-	283
Interest accrued but not due	-	452	-	470
Liability for capital expenditure	113	2,732	53	1,963
Security and other deposits	9	39	2	40
Unclaimed dividends - (a)	-	6	-	6
Temporary overdraft balance in current accounts	-	6	-	2
Others	192	139	152	149
	314	3,590	207	2,913

(a) These amounts do not include any amount, due and outstanding, to be credited to 'Investor Education and Protection Fund' except ₹ 0.09 Crore (31/03/2023: ₹ 0.09 Crore) which is held in abeyance due to legal cases pending.

12D. Supplier's credit

Supplier's credit represents the extended interest bearing credit offered by the supplier which is secured against the Usance Letter of Credit (LC). Under this arrangement, the supplier is eligible to receive payment from the negotiating bank prior to the expiry of the extended credit period. The interest for the extended credit period payable to the bank on the maturity of the LC has been presented under Finance Cost.

Critical accounting judgement and key sources of estimation uncertainty

The Group participates in various supply chain finance programs under which participating suppliers may voluntarily elect to sell some or all of their Group receivables to third-party financial institutions. Supplier participation in the programs is solely up to the supplier, and participating suppliers enter their arrangements directly with the financial institutions. The Group derecognises financial liability when the obligation under the liability is discharged or cancelled or expires. A significant amount of management judgement is involved in such arrangements to determine when an existing financial liability is replaced by another on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability.

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Supplier's credit	4,475	5,635
	4,475	5,635

(a) Supplier's credit also includes amounts payable towards Accounts Receivable Purchase Scheme ("ARPS") entered into with the suppliers. Under this arrangement, the supplier is eligible to receive payment prior to the expiry of extended credit period by assigning such invoices to a third-party purchaser bank based on security in the form of an undertaking issued by the Group to the bank. Further, the supplier charges interest to the Group for the extended credit period which has been presented under Finance Cost.

Notes

forming part of the Consolidated Financial Statements

12E. Trade payables

Trade payables represent liabilities for goods and services provided to the Group and are unpaid at the end of the reporting period. The amounts are unsecured and usually paid within time limits as contracted. Trade payables are presented as current liabilities unless the payment is not due within 12 months after the reporting period.

They are recognised initially at their transactional value which represents the fair value and subsequently measured at amortised cost using the effective interest method wherever applicable. Trade Payables arising out of a contract containing one or more embedded derivatives, and eligible for designation in its entirity as per Ind-AS 109 Financial Instruments, are subsequently measured at FVTPL.

Details of trade payables outstanding at the reporting date are as under:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Micro and Small Enterprises	175	192
Other than Micro and Small Enterprises - (b), (c)	34,269	35,668
	34,444	35,860

(a) Trade Payables ageing schedule as at 31/03/2024:

(₹ Crore)

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of payment				Total
			Less than 1 year	1 - 2 years	2 - 3 years	More than 3 years	
(i) Micro and Small Enterprises	26	92	51	3	2	1	175
(ii) Others	4,377	24,616	5,095	80	36	65	34,269
(iii) Disputed - Micro and Small Enterprises	-	-	-	-	-	-	-
(iv) Disputed - Others	-	-	-	-	-	-	-
Total	**4,403**	**24,708**	**5,146**	**83**	**38**	**66**	34,444

Trade Payables ageing schedule as at 31/03/2023:

(₹ Crore)

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of payment				Total
			Less than 1 year	1 - 2 years	2 - 3 years	More than 3 years	
(i) Micro and Small Enterprises	12	108	61	7	2	2	192
(ii) Others	5,075	26,493	3,944	86	17	53	35,668
(iii) Disputed - Micro and Small Enterprises	-	-	-	-	-	-	-
(iv) Disputed - Others	-	-	-	-	-	-	-
Total	**5,087**	**26,601**	**4,005**	**93**	**19**	**55**	35,860

(b) Refer Note 5D for Embedded derivative and non-derivative financial instruments used as hedging instruments.

(c) Refer Note 30 for details of balances with related parties.

(d) The Group participates in various supply chain finance programs under which participating suppliers may voluntarily elect to sell some or all of their Novelis receivables to third-party financial institutions. Supplier participation in the programs is solely up to the supplier, and participating suppliers enter their arrangements directly with the financial institutions. The Group and its suppliers agree on the contractual terms for the goods and services it procures, including prices, quantities and payment terms, regardless of whether the supplier elects to participate in these programs. Our suppliers' voluntary inclusion of invoices in these programs has no bearing on our payment terms. Further, we have no economic interest in a supplier's decision to participate in these programs. The payment terms that we have with our suppliers range up to 180 days and are considered commercially reasonable. At March 31, 2024, and March 31, 2023, confirmed supplier invoices that are outstanding and subject to the third party programs included in accounts payable on the consolidated balance sheets were ₹ 5,102 Crores ($612 million) and ₹ 6,581 Crores ($801 million), respectively. We do not believe that future changes in the availability of supply chain financing will have a significant impact on our liquidity.

13. Provisions

Provisions are recognized when there is a present obligation (legal or constructive) as a result of a past event and it is probable ("more likely than not") that it is required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the estimated cash flows to settle the present obligation, its carrying amount is the present value of those cash flows. The discount rate used is a pre-tax rate that reflects current market assessments of the time value of money in that jurisdiction and the risks specific to the liability.

Details of Provisions outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024			As at 31/03/2023		
	Non-Current	Current	Total	Non-Current	Current	Total
Assets retirement obligations	302	8	310	299	8	307
Environmental liability	55	526	581	17	586	603
Enterprise social commitment	164	91	255	148	102	250
Renewable power obligation - (c)	-	220	220	-	283	283
Legal cases	-	797	797	-	712	712
Carbon Emission	-	351	351	-	340	340
Miscellaneous provisions	97	28	125	122	46	168
	618	**2,021**	**2,639**	**586**	**2,077**	**2,663**

(a) Movements in each class of provisions are set out below:

(₹ Crore)

	Assets retirement obligations	Environmental liability	Enterprise social commitment	Renewable power obligation	Legal cases	Carbon Emission	Miscellaneous provisions	Total
Balance as at April 01, 2022	293	499	239	148	744	261	203	2,387
Provision made during the year	-	138	25	73	129	232	90	687
Reclassified	-	-	-	-	7	(17)	17	7
Provision utilised during the year	(9)	(37)	(10)	94	(163)	(157)	(101)	(383)
Provision reversed during the year	-	(19)	(15)	(32)	(35)	-	(72)	(173)
Unwinding of discounts	10	2	11	-	-	-	-	23
Exchange adjustment	13	20	-	-	30	21	31	115
Balance as at March 31, 2023	307	603	250	283	712	340	168	2,663

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	Assets retirement obligations	Environmental liability	Enterprise social commitment	Renewable power obligation	Legal cases	Carbon Emission	Miscellaneous provisions	Total
Balance as at mar 31,22023								
Provision made during the year	1	131	12	31	265	222	54	716
Reclassified	-	(6)	-	-	-	(159)	-	(165)
Provision utilised during the year	(9)	(56)	(10)	(43)	(71)	-	(36)	(225)
Provision reversed during the year	-	(97)	(1)	(51)	(111)	-	(63)	(323)
Unwinding of discounts	9	6	-	-	-	-	-	15
Exchange adjustment	2	-	4	-	2	(52)	2	(42)
Balance as at March 31, 2024	310	581	255	220	797	351	125	2,639

b) Brief description of provision:

(i) Assets retirement obligations:

Asset Retirement Obligation (ARO) is a legal or constructive obligation associated with the ash ponds, red mud ponds, ash pipeline and coal transportation system in refineries and mining land where the land needs to be restored back to a usable condition after closing of activities. This is a statutory requirement in which the timing or method of settlement may be conditional on one or multiple future events, the occurrence of which may not be within the control of the entity. The outflow of economic resources is expected over a period until FY 47.

(ii) Environmental liabilities

Environmental liability is associated with Wild Life Conservation Plan (WLCP) and disposal of hazardous material generated during the course of manufacturing or mining operation e.g. disposal of spent pot lining, Phospho Gypsum, Slag etc.

Environment liabilities are recognised when the group becomes obliged, legally or constructively to rectify environmental damage or perform remediation work.

This disposal generally takes place as per the guidelines set by various regulatory authorities of States and Central Government. The outflow of economic resources is expected over a period until FY 31. The effect of time value of money on the environmental liabilities is recognised in the statement of profit and loss as interest expense.

During the current year provision made majorly includes provision against Fly ash disposal ₹ 45 Crore, disposal of spent pot lining ₹ 37 Crore, disposal of Phospho Gypsum amounting ₹ 27 Crore.

(iii) Enterprise social commitment

Enterprise social commitment (includes the Corporate environment responsibility) is the amount to be spent on social and economic development of the surrounding area over a period of time where any new project is set up. Such obligation arises out of conditions mentioned in the Environment Clearance Certificate given by the Government for new projects and are generally defined as a percentage of total project cost. Present value of such future cash flows discounted at appropriate and applicable discount rates are capitalised against the obligation created. Actual cash flows that happen over the period are adjusted against the obligation. The effect of time value of money on the provision is recognised in the statement of profit and loss as interest expense. The outflow of economic resources is expected over a period until FY 2056.

(iv) Renewable power obligation

Some of the Group's units situated in various Indian states like Odisha, Madhya Pradesh, Maharashtra, Gujarat, Jharkhand etc. who get power from Captive power plants or procure power from open source, are obligated to purchase certain portion of their power consumption from Renewable Energy sources, both solar and non-solar. This gives rise to Renewable Power Obligation (RPO). In case the obligated units fail to procure power from such renewable sources, they may satisfy the obligation by purchasing Renewable Energy Certificates from authorised exchanges as an alternative.

Renewable Power obligation is created to the extent any obligated unit is unable to source renewable energy as a replacement to carbon energy as per requirement of the applicable regulation during the reporting period and is carried in books till the obligation is discharged by purchasing Renewable Energy Certificate from any of the authorised exchanges.

(v) Legal cases

The Group reviews the legal cases based on consideration of the information which becomes available up to the date on which the consolidated financial statements are approved, on the basis of the same provision relating to legal, tax and other matters are recognised once it has been established that the group has a present obligation since those events are probable to happen i.e. more likely than not but timing of occurrence of such events is uncertain as it depends on when the matter will be settled at the highest Court of law. In some cases the Group entail seeking expert advice in making the determination on whether there is a present obligation.

(vi) Carbon emission obligation

Carbon emission represents estimated liabilities towards emissions for operations in Europe and Asia. The provision is measured at the carrying amount of allowances to the extent that the provision will be settled using allowances on hand, with any excess emission being measured at the market value of the allowances at the period end.

(vii) Miscellaneous provisions:

The provisions which are not included in any other categories seperately are grouped under this head. The provisions primarily related to. viz. provisions related to, indirect taxes, restructurings, onerous contracts,restoration (including Mine closure), rehabilitation, decommissioning, etc.

(c) During 2017-18, while purchasing Non-Solar Renewable Energy Certificates (REC) to meet our obligation, the Group had to pay ₹ 500 per REC aggregating to ₹ 134 Crore as deposit to the REC Exchange in an Escrow account pursuant the directives from the Supreme Court of India. Provision for RPO as at 31/03/2022 was net of these REC deposits under escrow amount. During the year 2022-23, the REC Exchange has returned this amount against the bank guarantee provided by the Group. Accordingly, the provision has been adjusted for the same.

Notes

forming part of the Consolidated Financial Statements

14. Employee benefits

14A. Employee benefits expense

The details of Employee benefits expense are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Salaries and Wages	11,007	9,845
Post Employment Benefits, Refer Note 14(B)(I)		
Defined Benefit Plans	677	552
Defined Contribution Plans	542	434
Employee Share-Based Payment, Refer Note 14(B)(II)		
Equity Settled Share-Based Payment	57	48
Cash Settled Share-Based Payment	254	101
Employee Welfare Expenses	2,552	2,207
	15,089	13,187
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(311)	(124)
	14,778	**13,063**

(a) The Code on Social Security, 2020 ('Code') in India relating to employee benefits during employment and post employment benefits received Presidential assent in September 2020. The Code has been published in the Gazette of India. However, the date on which the Code will come into effect has not been notified. The Group will assess the impact of the Code when it comes into effect and will record any related impact in the period the Code becomes effective.

(b) The Hon'ble Supreme Court of India by their order dated February 28, 2019, in the case of Surya Roshani Limited v/s EPFO, set out the principles based on which allowances paid to the employees should be identified for inclusion in basic wages for the purposes of computation of Provident Fund contribution. The Group has given effect of the above judgement effective March 1, 2019. This does not have any material impact on the Consolidated Financial Statements.

14B. Employee benefits obligation

Retirement benefit, medical costs and termination benefits

*A **defined contribution plan** is a pension plan under which the group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Payments to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them to the contributions.*

*For **defined benefit retirement and medical plans**, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yields of government bonds having terms approximating to the terms of related obligation. In countries where there is a deep market in high-quality corporate bonds, the market rate on those bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation are used.*

Re-measurement, comprising of actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected in the consolidated balance sheet with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to the Consolidated statement of profit and loss. Past service cost is recognised in the consolidated statement of profit and loss in the period of a plan amendment.

Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- *service cost (includes current service cost, past service cost, as well as gains and losses on curtailments and settlements);*
- *net interest expense or income; and*
- *re-measurement.*

The Group recognised the first two components of defined benefit costs in the consolidated statement of profit and loss under employee benefits expense. Curtailment gains and losses are accounted for as past service costs.

The retirement benefit obligation recognised in the consolidated balance sheet represents the actual deficit or surplus in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

A liability for a termination benefit is recognised at the earlier of when the Group can no longer withdraw the offer of the termination benefit or when the entity recognises any related restructuring costs which involves the payment of termination benefits.

In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

Short-term and other long-term employee benefits

A liability is recognised for benefits accruing to employees in respect of wages and salaries in the period the related service is rendered at the undiscounted amount of the benefits expected to be paid in exchange for that service.

Liabilities recognised in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

Liabilities recognised in respect of other long-term employee benefits such as annual leave and sick leave are measured at the present value of the estimated future cash outflows expected to be made by the Group in respect of services provided by employees up to the reporting date. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit retirement plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to the consolidated statement of profit and loss in the period in which they arise. These obligations are valued annually by independent qualified actuaries.

The obligations relating to compensated absences are presented as current liabilities in the Consolidated Balance Sheet if the entity does not have an unconditional right to defer settlement for at least twelve months after the reporting period, regardless of when the actual settlement is expected to occur.

Critical accounting judgement and key sources of estimation uncertainty

The Group provides both defined benefit employee retirement plans and defined contribution plans. Measurement of pension and other superannuation costs and obligations under such plans require numerous assumptions and estimates that can have a significant impact on the recognized costs and obligation, such as future salary level, discount rate, attrition rate and mortality.

The Group provides defined benefit plans to its employees. The discount rate is based on Government bond yield. Assumptions for salary increase in the remaining service period for active plan participants are based on expected salary increase in India. Changes in these assumptions can influence the net asset or liability for the plan as well as the pension cost.

Notes

forming part of the Consolidated Financial Statements

Details of employee benefits obligation are given below:

(₹ Crore)

	As at 31/03/2024			As at 31/03/2023		
	Non-Current	Current	Total	Non-Current	Current	Total
Post employment defined benefit plans						
Gratuity	127	6	133	108	5	113
Pension	4,441	202	4,643	4,223	200	4,423
Post-Retiral Medical Benefit	635	82	717	647	90	737
Other Employee Benefit Plans						
Compensated Absence	-	593	593	-	555	555
Stock Appreciation Rights	150	181	331	69	161	230
Others Benefits	264	73	337	258	118	376
	5,617	**1,137**	**6,754**	**5,305**	**1,129**	**6,434**

(I) Post-Employment Benefits

The Group provides various benefit plan to its employees. Some of them are defined benefit in nature while some are contributory.

(i) Defined Benefit Plans

Major post retiral defined benefit plans of the Group include Gratuity, Pension, Post retirement medical benefit and Provident Fund (to the extent of the Group's obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis by Central Provident Fund Organisation of Government of India). The Group does Actuarial valuation for its identified defined benefit plans.

Methodology for actuarial valuation of Defined Benefit Obligations:

The Projected Unit Credit (PUC) actuarial method has been used to assess the plan's liabilities, including those related to death-in-service and incapacity benefits.

Under PUC method, a projected accrued benefit is calculated at the beginning of the year and again at the end of the year, for each benefit that will accrue for all active members of the plan. The projected accrued benefit is based on the plan's accrual formula and upon service as of the beginning or end of the year, but using a member's final compensation, projected to the age at which the employee is assumed to leave active service. The plan liability is the actuarial present value of the projected accrued benefits for active members.

Defined benefit plans expose the Group to actuarial risks such as Interest Rate Risk, Salary Risk and Demographic Risk.

(i) Interest Rate Risk: While calculating the defined benefit obligation a discount rate based on government bonds yields of matching tenure is used to arrive at the present value of future obligations. If the bond yield falls, the defined benefit obligation will tend to increase and plan assets will decrease.

(ii) Salary Risk: Higher than expected increases in salary will increase the defined benefit obligation.

(iii) Demographic Risk: This is the risk of variability of results due to unsystematic nature of decrements that include mortality, withdrawal, disability and retirement. The effect of these decrements on the defined benefit obligations is not straight forward and depends on the combination of salary increase, discount rate and vesting criteria. It is important not to overstate withdrawals because in the financial analysis the retirement benefit of a short career employee typically costs less per year as compared to a long service employee.

(a) Gratuity Plans

The Group has various schemes (funded/unfunded) for payment of gratuity to all eligible employees calculated at specified number of days (ranging from 15 days to 1 month) of last drawn salary depending upon the tenure of service for each year of completed service subject to minimum service of five years payable at the time of separation upon superannuation or on exit otherwise. These defined benefit gratuity plans are governed by the Payment of Gratuity Act, 1972.

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Funded	Unfunded	Total	Funded	Unfunded	Total
(i)	**Change in Defined Benefit Obligation (DBO)**						
	DBO at beginning of the year	1,057	110	1,167	1,027	103	1,130
	Current Service cost	40	8	48	40	7	47
	Interest Cost on the DBO	76	8	84	69	8	77
	Actuarial (gain)/ loss - experience	7	6	13	32	2	34
	Actuarial (gain)/ loss- financial assumption	22	3	25	(40)	(5)	(45)
	Benefits paid directly by the Group	-	(5)	(5)	(47)	(5)	(52)
	Benefits paid from plan assets	(85)	-	(85)	(24)	-	(24)
	Defined Benefit Obligation at the end of the year	1,117	130	1,247	1,057	110	1,167
(ii)	**Change in Fair Value of Plan Assets**						
	Fair value of assets at the beginning of the year	1,204	-	1,204	1,132	-	1,132
	Interest Income on plan assets	89	-	89	80	-	80
	Employer's contributions	40	-	40	49	-	49
	Return on plan assets greater/(lesser) than discount rate	60	-	60	(34)	-	(34)
	Benefits paid from plan assets	(85)	-	(85)	(23)	-	(23)
	Fair value of assets at the end of the year	**1,308**	**-**	**1,308**	**1,204**	**-**	**1,204**
(iii)	**Net Balance Sheet Position**						
	Defined Benefit Obligation	(1,117)	(130)	(1,247)	(1,057)	(110)	(1,167)
	Fair Value of Plan Assets	1,308	-	1,308	1,204	-	1,204
	Funded Status (surplus/(deficit))	191	(130)	61	147	(110)	37
	Funded surplus not recognised - (Refer Note - xiv)	(124)	-	(124)	(97)	-	(97)
	Net defined benefit asset/(liability) recognised in Balance sheet	**67**	**(130)**	**(63)**	**50**	**(110)**	**(60)**
(iv)	**Reconciliation of Net Balance Sheet Position**						
	Net Defined benefit asset/ (Liability) at beginning of the year	50	(110)	(60)	-	(103)	(103)
	Service cost	(40)	(8)	(48)	(40)	(7)	(47)
	Net Interest on net defined benefit asset/(liability)	13	(8)	5	11	(8)	3
	Actuarial gain/loss and return on plan assets recognised in OCI	31	(9)	22	(25)	3	(22)
	Funded surplus not recognised - (Refer Note - xiv)	(27)	-	(27)	8	-	8
	Employer's contributions	40	-	40	49	-	49
	Benefit paid directly by the Group	-	5	5	47	5	52
	Acquisitions (credit)/ cost	-	-	-	-	-	-
	Net Defined benefit asset/(Liability) at the end of the year	**67**	**(130)**	**(63)**	**50**	**(110)**	**(60)**

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Funded	Unfunded	Total	Funded	Unfunded	Total
(v)	**Expense recognised during the year**						
	Current Service cost	40	7	47	40	7	47
	Net Interest on net defined benefit liability/(asset)	(13)	8	(5)	(11)	8	(3)
	Net Gratuity Cost	**27**	**15**	**42**	**29**	**15**	**44**
(vi)	**Other Comprehensive Income (OCI)**						
	Actuarial (gain)/loss due to DBO experience	7	6	13	32	2	34
	Actuarial (gain)/loss due to DBO assumption changes	22	3	25	(40)	(5)	(45)
	Actuarial (gain)/loss arising during the year	29	9	38	(8)	(3)	(11)
	Return on Plan Assets(greater)/less than discount rate	(60)	-	(60)	34	-	34
	Funded surplus (recognised)/ not recognised in OCI - (Refer Note - xiv)	27	-	27	(8)	-	(8)
	Actuarial (gain)/loss recognised in OCI	**(4)**	**9**	**5**	**18**	**(3)**	**15**
(vii)	**Defined Benefit Cost**						
	Service Cost	40	8	48	40	7	47
	Net Interest on net defined benefit liability/(asset)	(13)	8	(5)	(11)	8	(3)
	Actuarial (gain)/ loss recognised in OCI	(31)	8	(23)	25	(3)	22
	Funded surplus (recognised)/ not recognised in OCI - (Refer Note - xiv)	27	-	27	(8)	-	(8)
	Defined Benefit Cost	**23**	**24**	**47**	**46**	**12**	**58**
(viii)	**Principal Actuarial Assumptions**						
	Discount rate*			7.25%			7.50%
	Salary escalation rate			7.50%			7.50%
	Weighted average duration of the defined benefit obligation			8 Years			8 Years
	Mortality Rate	Indian Assured Lives Mortality 2006-08					

*based on the market yields available on Government bonds at the accounting date with a term that matches that of the liabilities

(ix)	**Non-Current and Current portion of Employee Benefit Obligation**						
	Current portion	42	(6)	36	50	(5)	45
	Non-Current portion	25	(124)	(99)	-	(105)	(105)
	Assets/(Liabilites)	**67**	**(130)**	**(63)**	**(50)**	**(110)**	**(60)**

(x) **Sensitivity Analysis**

Sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

(₹ Crore)

Impact of provision - Increase/ (Decrease)	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Discount Rate						
Effect on Defined Benefit Obligation due to 1% Increase in Discount Rate	(76)	(10)	(86)	(73)	(9)	(82)
Effect on Defined Benefit Obligation due to 1% Decrease in Discount Rate	87	12	99	83	10	93
Salary Escalation Rate						
Effect on Defined Benefit Obligation due to 1% Increase in Salary Escalation Rate	86	11	97	82	10	92
Effect on Defined Benefit Obligation due to 1% Decrease in Salary Escalation Rate	(77)	(10)	(87)	(73)	(9)	(82)

(xi) **The Expected Maturity Analysis of Undiscounted Gratuity is as follows:**

(₹ Crore)

Impact of provision - Increase/ (Decrease)	As at 31/03/2024			As at 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Within 1 year	70	6	76	68	4	72
from 1 year to 2 Year	106	8	114	103	7	110
from 2 year to 3 Year	107	10	117	106	8	114
from 3 year to 4 Year	107	10	117	109	9	118
from 4 year to 5 Year	113	11	124	109	11	120
from 5 year to 10 Year	538	66	604	603	76	679
Beyond 10 years	1,082	161	1,243	1,105	148	1,253

(xii) **Composition of Plan Assets**

(₹ Crore)

Major categories of Plan Assets are as under:*	As at 31/03/2024			As at 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Cash and Bank Balances	1.28%	NA	1.28%	1.29%	NA	1.29%
Scheme of insurance - conventional product	0.19%	NA	0.19%	0.19%	NA	0.19%
Scheme of insurance - ULIP Product	98.53%	NA	98.53%	98.52%	NA	98.52%
	100.00%		100.00%	100.00%		100.00%

* Investment in Plan assets are unquoted.

(xiii) Expected Contributions to funded post employment benefit plan of Gratuity for the year ended March 31, 2025: ₹ Nil Crore.

(xiv) The Group has not recognised the surplus in its plan assets of gratuity fund to the extent, no future economic benefits are expected in the form of reduction in future contributions to the gratuity plan or refund from the gratuity plan.

Notes

forming part of the Consolidated Financial Statements

(b) Post Retirement Medical Benefit

The Group provides post retirement medical benefit to its certain retired employees in India. The scheme involves reimbursement of expenses towards medical treatment of self and dependents. The amount charged to the Consolidated Statement of Profit and Loss during the year is ₹ 0.32 Crore (31/03/2023: ₹ 0.33 Crore) and amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ 0.15 Crore (31/03/2023: ₹ (2) Crore). The obligation with respect to said scheme is ₹ 5 Crore (31/03/2023: ₹ 4 Crore).

(c) Other Pension Plan

It is a pension benefit provided to erstwhile Managing Director and certain employees of a subsidiary of the Group. The amount charged to Consolidated statement of Profit and Loss during the year is ₹ 3 Crore (31/03/2023: ₹ 3 Crore). Amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ 1 Crore (31/03/2023: ₹ (2) Crore).

The obligation with respect to these schemes as at As at 31/03/2024: ₹ 48 Crore (31/03/2023: ₹ 48 Crore)

(d) Provident Fund (Managed by Trust)

The Group's contribution towards Provident Fund managed by approved trusts, which are substantially defined benefit plan is debited to the Consolidated Statement of Profit and Loss. The Group has an obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis by Central Provident Fund Organisation of Government of India.

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Fund I	Fund II	Total	Fund I	Fund II	Total
(i)	**Change in Defined Benefit Obligations (DBO)**						
	DBO at the beginning of the year	2,739	918	3,657	2,590	858	3,448
	Current service cost	64	17	81	58	17	75
	Interest Cost on the DBO	208	67	275	163	60	223
	Acquisitions cost	13	5	18	7	5	12
	Actuarial (gain)/ loss - experience	(128)	1	(127)	519	4	523
	Actuarial (gain)/ loss - financial assumption	(7)	9	2	(15)	(8)	(23)
	Benefits paid directly by the Group	-	-	-	-	-	-
	Benefits paid from plan assets	(161)	(136)	(297)	(747)	(78)	(825)
	Plan participants' contributions (including VPF)	180	61	241	164	60	224
	DBO at the end of the year	**2,908**	**942**	**3,850**	**2,739**	**918**	**3,657**
(ii)	**Change in Fair Value of Plan Assets**						
	Fair Value of Plan Assets at the beginning of the year	2,745	937	3,682	2,694	888	3,582
	Acquisition adjustment	13	5	18	7	5	12
	Interest Income on plan assets	209	68	277	170	62	232
	Employer's contributions	64	17	81	58	17	75
	Plan participants' contributions (including VPF)	180	61	241	164	60	224
	Return on plan assets greater/(lesser) than discount rate	22	27	49	399	(17)	382
	Benefits Paid	(161)	(136)	(297)	(747)	(78)	(825)
	Fair Value of Plan Assets at the end of the year	**3,072**	**979**	**4,051**	**2,745**	**937**	**3,682**

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Fund I	Fund II	Total	Fund I	Fund II	Total
(iii)	**Net Balance Sheet Position**						
	DBO	(2,908)	(943)	(3,851)	(2,739)	(918)	(3,657)
	Fair Value of Plan Assets	3,072	979	4,051	2,745	937	3,682
	Status {surplus/(deficit)}	164	36	200	6	19	25
	Irrecoverable Surplus (Effect of Asset Celling)	(164)	(36)	(200)	(6)	(19)	(25)
	Net defined benefit asset/(liability) recognised in the Balance Sheet	-	-	-	-	-	-
(iv)	**Reconciliation of Net Balance Sheet Position**						
	Net Defined benefit asset/(Liability) at beginning of the year	-	-	-	-	-	-
	Service cost	(64)	(17)	(81)	(58)	(17)	(75)
	Net Interest on net defined benefit liability/(asset)	-	-	-	-	-	-
	Actuarial gain/loss and return on plan assets recognised in OCI	-	-	-	-	-	-
	Employer's contributions	64	17	81	58	17	75
	Benefit paid directly by the Group	-	-	-	-	-	-
	Acquisition credit/(cost)	-	-	-	-	-	-
	Net Defined benefit asset/(Liability)at the end of the year	-	-	-	-	-	-
(v)	**Change in Irrecoverable Surplus**						
	(Irrecoverable Surplus) at the beginning of the year	(6)	(19)	(25)	(104)	(30)	(134)
	Interest on (Irrecoverable Surplus)	(1)	(1)	(2)	(7)	(2)	(9)
	Change in (Irrecoverable Surplus) in Excess of Interest	(157)	(16)	(173)	105	13	118
	(Irrecoverable Surplus) at the end of the year	**(164)**	**(36)**	**(200)**	**(6)**	**(19)**	**(25)**
(vi)	**Expense recognised during the year**						
	Current Service cost	64	17	81	58	17	75
	Interest cost on DBO	208	67	275	163	60	223
	Interest income on plan assets	(209)	(68)	(277)	(170)	(62)	(232)
	Interest on (Irrecoverable Surplus)	1	1	2	7	2	9
	Net Cost	**64**	**17**	**81**	**58**	**17**	**75**
(vii)	**Other Comprehensive Income(OCI)**						
	Actuarial (Gain)/ Loss due to DBO experience	(128)	1	(127)	519	4	523
	Actuarial (Gain)/ Loss due to DBO assumption changes	(7)	9	2	(15)	(8)	(23)
	Actuarial (Gain)/ Loss arising during the period	(135)	10	(125)	504	(4)	500
	Return on Plan Assets (greater)/less than discount rate	(22)	(26)	(48)	(399)	17	(382)
	Change in Irrecoverable Surplus other than Interest	157	16	173	(105)	(13)	(118)
	Actuarial (Gain)/ Loss recognised in OCI	-	-	-	-	-	-

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Fund I	Fund II	Total	Fund I	Fund II	Total
(viii)	**Defined Benefit Costs**						
	Service Cost	64	17	81	58	17	75
	Net Interest on net defined benefit liability/(asset)	-	-	-	-	-	-
	Actuarial (gain)/loss recognised in OCI	-	-	-	-	-	-
	Defined Benefit Cost	**64**	**17**	**81**	**58**	**17**	**75**
(ix)	**Principal Actuarial Assumptions**						
	Discount rate (based on the market yields available on Government bonds at the accounting date with a term that matches that of the liabilities)	7.25%	7.25%		7.50%	7.50%	
	Expected rate of return of assets	8.40%	8.30%		8.30%	8.60%	
	Expected EPFO Return	8.15%	8.15%		8.15%	8.15%	
	Weighted average duration of the defined benefit obligation	9 years	9 years		9 years	9 years	
(x)	**Non- Current and Current of Employee Benefit Obligations**						
	Current	-	-	-	-	-	-
	Non-current	-	-	-	-	-	-
	Assets/(Liabilites	**-**	**-**	**-**	**-**	**-**	**-**
(xi)	**The Expected Maturity Analysis of Undiscounted Provident fund is as follows:**						
	Within 1 year	218	68	286	152	59	211
	From 1 year to 2 Year	167	66	233	149	36	185
	From 2 year to 3 Year	287	95	382	263	86	349
	From 3 year to 4 Year	365	136	501	323	101	424
	From 4 year to 5 Year	414	129	543	347	123	470
	From 5 year to 10 Year	2,401	819	3,220	2,196	781	2,977
(xii)	**Composition of Plan Assets @ Major categories of Plan Assets are as under:**						
	Govt of India Securities	51.23%	47.16%		54.28%	50.31%	
	Debt Instrument & Related Instrument	28.28%	30.63%		28.47%	28.01%	
	Equity and related investment	13.81%	12.09%		10.44%	8.17%	
	Cash (Including Special deposits)	6.68%	10.12%		6.81%	13.51%	
		100.00%	100.00%		100.00%	100.00%	

@ Investments in plan assets are quoted (excluding cash)

(xiii) Sensitivity analysis

Sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be co-related. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

(₹ Crore)

	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Discount Rate						
Effect on DBO due to 1% increase in discount rate	(4)	(2)	(6)	(5)	(1)	(6)
Effect on DBO due to 1% decrease in discount rate	4	2	6	5	1	6

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Sensitivity Analysis for Discount Rate:		
Pension		
Effect on DBO due to 1% increase in discount rate	(0)	(0)
Effect on DBO due to 1% decrease in discount rate	0	0
Post Retirement Medical		
Effect on DBO due to 1% increase in discount rate	(0)	(0)
Effect on DBO due to 1% decrease in discount rate	0	0

(e) Pension and Post Employment Medical Benefits of Novelis Inc, the Group's overseas subsidiary

Obligations related to the Group's overseas operations, relate to: (1) funded defined benefit pension plans in the U.S., Canada, Switzerland, and the U.K.; (2) unfunded defined benefit pension plans in Germany; (3) unfunded lump sum indemnities payable upon retirement to employees in France, Malaysia and Italy; and (4) partially funded lump sum indemnities in South Korea. These defined benefit plans provide a benefit to eligible employees based on plan provisions, including but not limited to, years of service, compensation, or other vesting criteria. Each of the funded pension plans is governed by an Investment Fiduciary. Other post retirement obligations include unfunded health care and life insurance benefits provided to eligible retired employees in the U.S., Canada, and Brazil. In addition, it provide post employment benefits, including disability, early retirement and continuation of benefits (medical, dental, and life insurance) to eligible former employees.

Notes

forming part of the Consolidated Financial Statements

Pension Plan:

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Funded	Unfunded	Total	Funded	Unfunded	Total
(i)	**Change in obligation over the year**						
	Present Value of defined benefit obligations at the beginning of the year	10,223	3,668	13,891	11,227	4,313	15,540
	Exchange (gain)/loss on translation	113	15	128	724	189	913
	Current Service Cost	161	136	297	146	130	276
	Interest Cost	471	143	614	378	81	459
	Plan Settlements	(13)	-	(13)	-	-	-
	Plan Participants Contribution	47	-	47	42	-	42
	Plan Amendments	(2)	-	(2)	-	-	-
	Net actuarial (gain)/ loss	73	118	191	(1,708)	(789)	(2,497)
	Remeasurement changes in Asset ceiling	(13)	-	(13)	(8)	-	(8)
	Benefits Paid	(662)	(273)	(935)	(578)	(256)	(834)
	Present Value of defined obligations at the end of the year	**10,398**	**3,807**	**14,205**	**10,223**	**3,668**	**13,891**

During the current year, Novelis transferred the liabilities associated with the retirees and beneficiaries of the Novelis ZVO II 2007 - Casthouse and Novelis ZVO II 2007 - Koblenz plans to an insurer through buy-out annuities. The transfer occurred on April 1, 2023, which settled obligations of ₹ (13) Crores ($1.5 million). Novelis remeasured the plan's assets and obligations as of March 31, 2023, which was the nearest calendar month-end to the transfer. As a result of this transaction, a settlement gain of ₹ (13) Crores ($1.6 million) was recorded during the current year.

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Funded	Unfunded	Total	Funded	Unfunded	Total
(ii)	**Change in plan assets**						
	Fair Value of plan assets at the beginning of the year	9,686	-	9,686	10,685	-	10,685
	Exchange gain/ (loss) on translation	105		105	688		688
	Plan Settlements	(26)	-	(26)	-	-	-
	Remeasurement - return on plan assets excluding amount included in interest income	(60)	-	(60)	(1,659)	-	(1,659)
	Interest Income	439	-	439	358	-	358
	Employers' Contributions	469	-	469	406	-	406
	Plan participants contribution	47	-	47	42	-	42
	Benefits Paid	(935)	-	(935)	(834)	-	(834)
	Fair value of assets at the end of the year	**9,725**	**-**	**9,725**	**9,686**	**-**	**9,686**

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Funded	Unfunded	Total	Funded	Unfunded	Total
(iii)	**Reconciliation of fair value of assets & obligations**						
	Present value of defined benefit obligations at the end of the year	10,398	3,807	14,205	10,223	3,668	13,891
	Fair Value of Plan assets at the end of the year	9,725	-	9,725	9,686	-	9,686
	Amount recognized in the consolidated balance sheet	**673**	**3,807**	**4,480**	**537**	**3,668**	**4,205**
	Recognized prepaid pension	116	-	116	170	-	170
	Recognized pension liability	789	3,807	4,596	707	3,668	4,375

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Funded	Unfunded	Total	Funded	Unfunded	Total
(iv)	**Expenses recognized during the year**						
	Current service cost	161	136	297	146	130	276
	Past service cost/ Curtailment (credit)/ Settlement (gain)	11	5	16	-	-	-
	Interest cost (net)	34	141	175	20	81	101
		206	**282**	**488**	**166**	**211**	**377**

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Funded	Unfunded	Total	Funded	Unfunded	Total
(v)	**Remeasurement of net defined benefit liability/(asset) (OCI)**						
	Actuarial (gains)/ losses arising from changes in demographic assumptions	(54)	-	(54)	-	4	4
	Actuarial (gains)/ losses arising from changes in financial assumptions	62	171	233	(1,781)	(1,040)	(2,821)
	Actuarial (gains)/ losses arising from changes in experience adjustments	66	(54)	12	72	249	321
	Remeasurement of net defined benefit liability	74	117	191	(1,709)	(787)	(2,496)
	Remeasurement return on plan assets excluding amount included in interest income	59	-	59	1,659	-	1,659
	Impact of asset ceiling	(13)	-	(13)	(8)	-	(8)
	Exchange Gain/ (Loss)	6	8	14	(19)	(42)	(61)
		126	**125**	**251**	**(77)**	**(829)**	**(906)**

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	As at 31/03/2024	As at 31/03/2023
(vi) Composition of Plan Assets*		
Equity	3,390	2,888
Fixed Income	5,211	5,620
Real Estate	498	470
Cash and cash equivalent	496	512
Other	130	196
	9,725	9,686

* Investment in Plan assets are unquoted.

Post employment medical benefit plan:

(₹ Crore)

	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
(i) Change in obligations over the year						
Present value of defined benefit obligations at the beginning of the year	-	733	733	-	747	747
Exchange (gain) /loss on translation	-	17	17	-	54	54
Current service cost	-	19	19	-	21	21
Interest cost	-	41	41	-	31	31
Net actuarial (gain) /loss	-	(53)	(53)	-	(85)	(85)
Benefits paid	-	(46)	(46)	-	(35)	(35)
Present value of defined benefit obligations	**-**	**711**	**711**	**-**	**733**	**733**
(ii) Reconciliation of fair value of assets & obligations						
Present value of defined benefit obligations at the end of the year	-	711	711	-	733	733
Fair Value of Plan assets at the end of the year	-	-	-	-	-	-
Amount recognized in the consolidated balance sheet	-	711	711	-	733	733
Recognized prepaid pension	-	-	-	-	-	-
Recognized pension liability	-	711	711	-	733	733
(iii) Expenses recognized during the year						
Current service cost	-	19	19	-	21	21
Interest cost (net)	-	41	41	-	31	31
	-	**60**	**60**	**-**	**52**	**52**

(₹ Crore)

	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
(iv) Remeasurement of net defined benefit liability/(asset) (OCI)						
Actuarial (gains)/ losses arising from changes in demographic assumptions	-	-	-	-	-	-
Actuarial (gains)/ losses arising from changes in financial assumptions	-	(43)	(43)	-	(123)	(123)
Actuarial (gains)/ losses arising from changes in experience adjustments	-	(9)	(9)	-	37	37
Remeasurement of net defined benefit liability	-	(52)	(52)	-	(86)	(86)
Remeasurement return on plan assets excluding amount included in interest income	-	-	-	-	-	-
Impact of asset ceiling	-	-	-	-	-	-
Exchange Gain/ (Loss)	-	23	23	-	14	14
	-	**(29)**	**(29)**	**-**	**(72)**	**(72)**

(v) The principal actuarial assumptions at the reporting dates(expressed as weighted averages) are as follows:

a) Defined Benefits obligation (Pension Plan)

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Funded	Unfunded	Funded	Unfunded
Discount Rate	4.05%	2.79%	4.13%	3.50%
Salary growth Rate	2.95%	1.98%	2.92%	2.41%
Expected future lifetimes (in years) for employees				
Pensioners	19.16	16.98	18.85	20.39
Current employees	5.95	7.91	9.07	9.14

b) Post employment medical benefits

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Funded	Unfunded	Funded	Unfunded
Long term increase in healthcare costs	-	4.71%	-	4.71%
Discount rate	-	5.27%	-	5.19%

Notes

forming part of the Consolidated Financial Statements

Sensitivity analysis for each significant actuarial assumption

(₹ Crore)

Impact on provision	Year ended 31/03/2024				Year ended 31/03/2023			
	Approximate (increase)/ decrease				Approximate (increase)/ decrease			
	Defined Benefits obligation		Post Employment Medical Benefits		Defined Benefits obligation		Post Employment Medical Benefits	
	Funded	Unfunded	Funded	Unfunded	Funded	Unfunded	Funded	Unfunded
Discount Rate								
Increase of 1 percentage	1,050	502	-	65	1,036	479	-	66
Decrease of 1 percentage	(1,227)	(586)	-	(76)	(1,216)	(559)	-	(77)
Salary Growth Rate								
Increase of 1 percentage	(207)	(56)	-	-	(160)	(44)	-	-
Decrease of 1 percentage	188	53	-	-	144	40	-	-
Pension Growth Rate			-				-	
Increase of 1 percentage	(48)	(191)	-	-	(106)	(370)	-	-
Decrease of 1 percentage	50	176	-	-	99	323	-	-
Expected future lifetimes(in years) for employees								
Participants assumed to have the mortality rates of individuals who are one year older	(229)	(152)	-	(8)	(222)	(128)	-	(9)
Participants assumed to have the mortality rates of individuals who are one year younger	226	152	-	9	217	132	-	9
Medical cost trend rates								
Increase of 1 percentage	-	-	-	(47)	-	-	-	(127)
Decrease of 1 percentage	-	-	-	41	-	-	-	63

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the prior year.

The most significant assumption used to calculate pension and other postretirement obligations is the discount rate used to determine the present value of benefits. The discount rate is based on spot rate yield curves and individual bond matching models for pension and other postretirement plans in Canada, the United States, United Kingdom, and other euro zone countries, and on published long-term high quality corporate bond indices in other countries with adjustments made to the index rates based on the duration of the plans' obligations for each country, at the end of each fiscal year. This bond matching approach matches the bond yields with the year-to-year cash flow projections from the actuarial valuation to determine a discount rate that more accurately reflects the timing of the expected payments.

(x) Weighted average duration in years are as follows:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Funded	Unfunded	Funded	Unfunded
Defined benefit obligation	9.41	7.96	11.03	10.60
Post employment medical benefit plan	-	9.96	-	10.04

(xi) Expected maturity analysis of undiscounted defined befit plan and post-employment medical benefit plans

(₹ Crore)

	As at 31/03/2024				As at 31/03/2023			
	Within 1 year	Between 1-2 years	Between 2-5 years	5 to 10 years	Within 1 year	Between 1-2 years	Between 2-5 years	5 to 10 years
Defined benefit plan	903	1,840	2,801	4,604	812	1,750	2,643	4,667
Funded	676	1,344	2,149	3,614	600	1,331	2,074	3,706
Unfunded	227	496	652	990	212	419	569	961
Post employment medical benefit plan	46	98	164	343	35	95	159	326
Funded	-	-	-	-	-	-	-	-
Unfunded	46	98	164	343	35	95	159	326

(xii) Expected contributions to the funded defined benefit plans for the year ended March 31, 2025: ₹ 267 Crore.

(ii) Defined Contribution Plans

The Group has certain defined contribution plans such as provident funds (not managed by Trust), superannuation fund and family pension fund for the benefit of the employees. The Contributions are made to registered funds/ organisation administered by the government. The obligation of the Group is limited to the amount contributed and it has no further contractual nor any constructive obligation.

(a) Pension

It is a contributory benefit plan where the Group contributes a certain percentage of salary for all eligible employees in India in the managerial cadre towards Superannuation Funds with option to put certain portion in National Pension Scheme (NPS) and/or in funds managed by Birla Sunlife Insurance Company to be converted to annuity of Life Insurance Corporation of India at retirement. Junior Pension Plan provided to certain employees is in the nature of defined benefit plan which provides an annuity in the form of pension amount at retirement. The amount charged to the Consolidated Statement of Profit and Loss during the year is ₹ 18 Crore (31/03/2023: ₹ 17 Crore).

(b) Provident Fund (Other than Trust)

In respect of certain employees, the Group's contribution towards Provident Fund as specified under the law is paid to the Regional Provident Fund Commissioner and is debited to the Statement of Profit and Loss. The Group also contributes to Coal Mines Provident Fund (CMPF) in respect of employees working in coal mines.

The amount debited to the Consolidated Statement of Profit and Loss during the year was ₹ 34 Crore (31/03/2023: ₹ 34 Crore)

(c) Multiemployer Plan

Certain union employees of Novelis Inc. in the United States are covered by a multi-employer plan based on obligations arising from collective bargaining agreements. This plan provides retirement and other benefits to participants generally based on their service to contributing employers. The benefits are paid from assets held in trust for that purpose. Trustees are appointed in equal number by employers and unions and they are typically responsible for oversight of the investment of the assets and administration of the plan.

Notes

forming part of the Consolidated Financial Statements

Contribution rates and, in some instances, benefit levels are generally deermined through the collective bargaining process between the participating employers and unions. None of the Novelis Inc. collective bargaining agreements require an increase in the Novelis's total pension contributions to meet minimum funding requirements. All plans that are defined benefit plans, on the basis of the terms of the benefits provided, are accounted for as defined contribution plans because, among other things, there is insufficient information available to account for these plans as defined benefit plans.

(II) Other Employee Benefit Plans

(i) Compensated Absences

The Compensated absences cover the Group's liability for earned leave and sick leave. The entire amount of the provision of ₹ 593 Crore (31/03/2023: ₹ 555 Crore) is presented as current, since the Group does not have an unconditional right to defer settlement for these obligations. Expected amount towards settlement of Leave for the next 12 months are ₹ 40 Crore (31/03/2023: ₹ 45 Crore).

(II) Employee share-based payments

Equity settled share-based payments to employees are measured at the fair value of options at the grant date.

The fair value of options at the grant is expensed over the respective vesting period in which all of the specified vesting conditions are to be satisfied with a corresponding increase in equity as "Employee Stock Options Account". In case of forfeiture of unvested option, portion of amount already expensed is reversed. In a situation where the vested options are forfeited or expires unexercised, the related balance standing to the credit of the "Employee Stock Options Account" are transferred to the "Retained Earnings".

When the options are exercised, the Company issues new equity shares of the Company of ₹ 1/- each fully paid-up. The proceeds received and the related balances standing to credit of the Employee Stock Options Account are credited to share capital (nominal value) and Securities Premium Account.

Share appreciation rights which are cash settled, are recognised as employee benefit expense over the relevant service period. The liability is fair valued at each reporting date and are presented as employee benefit obligations in the consolidated balance sheet.
Employee Stock Option Scheme administered by any independent trust is deemed as the extended arm of the Company and is consolidated in the financial statements. When the options are exercised, the trust transfers the appropriate number of shares to the employee. The proceeds received, net of any directly attributable transaction costs, are credited directly to equity.

The Group has formulated employee share-based payment schemes with objective to attract and retain talent and align the interest of employees with the Group as well as to motivate them to contribute to its growth and profitability. The Group views employee stock options as instruments that would enable the employees to share the value they create for the Group in the years to come. At present four employee share-based payment schemes are in operation at Hindalco Industries Limited, the Parent, whereas three employee share-based payment schemes are in operation at Novelis Inc., a subsidiary of the Company. Details of these employee share-based schemes are given below:

(a) Employee share-based payments at Parent

(i) Employee Stock Option Scheme 2013 ("ESOS 2013"):

The shareholders of the Company has approved on 10/09/2013 an Employee Stock Option Scheme 2013 ("ESOS 2013"), under which the Company may grant up to 5,462,000 Options (comprising of Stock Options and/ or Restricted Stock Units (RSU)) to the permanent employees in the management cadre and Managing and Whole time Directors of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2013 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The stock options exercise price would be determined by the Committee, whereas the RSUs exercise price shall be the face value of the equity shares of the Company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of ₹ 1/- each of the Company upon payment of exercise price during exercise period. The stock options will vest in 4 equal annual instalments after completion of one year of the services from the date of grant, whereas RSU will vest upon completion of three years of services from the date of grant. The maximum period of exercise is 5 years from the date of vesting and these stock option/ RSU do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/ expired stock options and RSUs are also available for grant.

In terms of ESOS 2013, till 31/03/2024 the Committee has granted 2,250,754 stock options and 2,252,254 RSUs (31/03/2023: 2,250,754 stock options and 2,252,254 RSUs) to the eligible employees of the Company and some of its subsidiary companies. Further, 301,381 stock options and 213,095 RSUs (31/03/2023: 301,381 stock options and 213,095 RSUs) has been forfeited/ expired and are available for grant as per term of the Scheme.

A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

(₹ Crore)

	Year ended 31/03/2024				Year ended 31/03/2023			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	4,385	167.15	27,553	1.00	26,248	135.39	27,553	1.00
Granted during the year	-	-	-	-	-	-	-	-
Forfeited during the year	-	-	-	-	-	-	-	-
Re-instated during the year	-	-	-	-	-	-	-	-
Exercised during the year	(4,385)	167.15	(17,553)	1.00	(21,861)	129.02	-	-
Expired during the year	-	-	-	-	(2)	119.45	-	-
Outstanding at year end	-	-	10,000	1.00	4,385	167.15	27,553	1.00
Vested and Exercisable at year end	-	-	10,000	1.00	4,385	167.15	27,553	1.00

Under ESOS 2013, the range of exercise prices for stock options outstanding as at 31/03/2024 was ₹ Nil (31/03/2023: ₹ 119.45 to ₹ 167.15) whereas exercise price in case of RSUs was ₹ 1.00 (31/03/2023: ₹ 1.00). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2024 was Nil and 0.72 years, respectively (31/03/2023: 1.72 years and 1.72 years, respectively).

The weighted average share price at the date of exercise of ESOS 2013 was ₹ 423.70 per share (31/03/2023 ₹ 392.76 per share).

(ii) Employee Stock Option Scheme 2018 ("ESOS 2018"):

The shareholders of the Company has approved on 21/09/2018 an Employee Stock Option Scheme 2018 ("ESOS 2018"), formulated by the Company, under which the Company may grant not more than 13,957,302 [Stock Options and Restricted Stock Units('RSU')] to the permanent employees of the Company in management cadre including Managing and the Wholetime Director of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee") and the Hindalco Employees Welfare Trust ("Trust"). The Stock options exercise price would be determined by the Committee whereas the RSU exercise price shall be the face value of the equity shares of the Company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of Re. 1/- each of the Company upon payment of exercise price during the exercise period. The Options and RSUs Granted under the Scheme 2018 shall vest, subject to compliance with the minimum vesting period of one year, within a period of four years for Options and of three years for RSUs from the Grant Date, in the manner set out in the respective vesting letters to be issued by the Company to the Grantees from time to time. The maximum period of exercise is 5 years from the date of vesting and these stock options/RSUs do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/expired stock options and RSUs are also available for grant. The options shall lapse in case of performance linked vesting conditions are not met.

Notes

forming part of the Consolidated Financial Statements

In terms of ESOS 2018, till 31/03/2024 the Committee has granted 9,465,173 stock options and 2,766,817 RSUs (31/03/2023: 9,465,173 stock options and 2,766,817 RSUs) to the eligible employees of the Company and some of its subsidiary companies. Further, 1,249,195 stock options and RSUs 259,370 (31/03/2023: 1,143,828 stock options and RSUs 203,461) has been forfeited/ expired and are available for grant as per term of the Scheme. A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

(₹ Crore)

	Year ended 31/03/2024				Year ended 31/03/2023			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	7,339,063	333.81	1,821,752	1.00	5,324,888	302.51	1,640,675	1.00
Granted during the year	-	-	-	-	2,402,670	395.45	785,278	1.00
Re-instated during the year	-	-	-	-	-	-	-	-
Forfeited during the year	(105,367)	403.66	(55,909)	1.00	(136,902)	384.73	(53,864)	1.00
Exercised during the year	(831,265)	241.83	(548,401)	1.00	(251,593)	232.43	(550,337)	1.00
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at year end	6,402,431	344.60	1,217,442	1.00	7,339,063	333.81	1,821,752	1.00
Vested and Exercisable at year end	4,343,814	313.65	265,604	1.00	3,720,192	261.63	640,908	1.00

Under ESOS 2018, the range of exercise prices for stock options outstanding as at 31/03/2024 was ₹ 159.30 to ₹ 453.95 (31/03/2023 was ₹ 159.30 to ₹ 453.95) whereas exercise price in case of RSUs was ₹ 1 (31/03/2023: ₹ 1). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2024 was 4.19 years and 5.54 years, respectively (31/03/2023 was 5.02 years and 5.90 years respectively).

The weighted average share price at the date of exercise of ESOS 2018 was ₹ 453.97 per share (31/03/2023 was ₹ 416.04 per share).

The fair values at grant date of stock options granted during the year ended 31/03/2024 was Nil (31/03/2023 was ₹ 159.32 to ₹ 215.70) and fair values in case of RSUs was Nil (31/03/2023 was ₹ 350.00 to ₹ 413.12), respectively. The fair valuation has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest for terms of options.

The details of options granted during the previous year, the key assumptions for Fair Value on the date of grant were as under:

(₹ Crore)

	Year ended 31/03/2023					
	Tranche IX		Tranche X		Tranche XI	
	Stock Option	RSU	Stock Option	RSU	Stock Option	RSU
Grant date	22/07/2022	22/07/2022	11/11/2022	11/11/2022	09/02/2023	09/02/2023
Exercise price (₹)	375.95	1.00	415.10	1.00	436.50	1.00
Expected terms of options granted (years)	4.43 to 6.43 years	8 years	4.43 to 6.43 years	8 years	4.43 to 6.43 years	8 years
Share price on grant date (₹)	381.25	381.25	429.85	429.85	444.55	444.55
Expected volatility (%)	42.23%	42.23%	41.51%	41.51%	38.93%	38.93%
Expected dividend (%)	1.05%	1.05%	0.93%	0.93%	0.90%	0.90%
Risk free interest rate (%)	7.09% - 7.26%	7.23%	7.10% - 7.20%	7.23%	7.21% - 7.28%	7.29%

(iii) Employee Stock Option Scheme 2022 ("ESOS 2022"):

The shareholders of the Company has approved on 23/08/2022 an Employee Stock Option Scheme 2022 ("ESOS 2022"), formulated by the Company, under which the Company may grant not more than 16,828,000 [Stock Options and Performance Stock Units('PSU')] to its permanent employees of the Company in management cadre including Managing and the Wholetime Director of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2022 is administered by the Nomination, Remuneration and Compensation Committee of the Board of Directors of the Company ("the Committee") and the Hindalco Employees Welfare Trust ("Trust"). The Stock options exercise price shall be the Market Price of the Share or as may be determined by the Committee whereas the PSU exercise price shall be the face value of the Sharesor as may be determined by the committee. Each stock option and each PSU entitles the holders to apply for and be allotted one fully paid-up equity share of Re. 1/- each of the Company upon payment of exercise price during the exercise period. The Options and PSUs Granted under the Scheme 2022 shall Vest, subject to compliance with the minimum vesting Period of one year, within a period of four years for from the Grant Date, in the manner set out in the respective vesting letters to be issued by the Company to the Grantees from time to time. The maximum period of exercise is 5 years from the date of vesting and these stock options/PSUs do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/expired stock options and RSUs are also available for grant. The options shall lapse in case of performance linked vesting conditions are not met.

In terms of ESOS 2022, till 31/03/2024 the Committee has granted 2,262,753 stock options and 317,023 PSUs (31/03/2023: NIL stock options and NIL PSUs) to the eligible employees of the Company and some of its subsidiary companies. A summary of movement of stock options and PSUs and weighted average exercise price (WAEP) is given below:

(₹ Crore)

	Year ended 31/03/2024			
	Stock Options		RSUs	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	-	-	-	-
Granted during the year	2,262,753	464.85	317,023	1.00
Re-instated during the year	-	-	-	-
Forfeited during the year	(5,770)	464.85	(809)	1.00
Exercised during the year	-	-	-	-
Expired during the year	-	-	-	-
Outstanding at year end	2,256,983	464.85	316,214	1.00
Vested and Exercisable at year end	-	-	-	-

Under ESOS 2022, the range of exercise prices for stock options outstanding as at 31/03/2024 was ₹ 464.85 (31/03/2023 was NIL) whereas exercise price in case of PSUs was ₹ 1 (31/03/2023: NIL). The weighted average remaining contractual life for the stock options and PSUs outstanding as at 31/03/2024 was 6.36 years and 7.36 years, respectively (31/03/2023 was NIL).

There was no exercise of options during the year within this scheme.

The fair values at grant date of stock options granted during the year ended 31/03/2024 was ₹ 143.25 to ₹ 197.85 (31/03/2023 was NIL) and fair values in case of PSUs was ₹ 443.36 (31/03/2023 was NIL) respectively. The fair valuation has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest for terms of options.

Notes

forming part of the Consolidated Financial Statements

The details of options granted, the key assumptions for Fair Value on the date of grant are as under:

(₹ Crore)

	Year ended 31/03/2024	
	Tranche I	
	Stock Options	PSUs
Grant date	08/08/2023	08/08/2023
Exercise price (₹)	464.85	1.00
Expected terms of options granted (years)	2.91 to 4.91 years	3.58 years
Share price on grant date (₹)	454.75	454.75
Expected volatility (%)	38.74% to 43.19%	44.27%
Expected dividend (%)	0.66%	0.66%
Risk free interest rate (%)	6.99% to 7.03%	7.01%

The expected volatility was determined based on the historical share price volatility over the past period depending on life of the options granted which is indicative of future periods and which may not necessarily be the actual outcome.

(iv) **Stock Appreciation Rights 2018 ('SAR 2018'):**

The Company till 31/03/2024, has granted 196,064 Option SAR and 59,816 RSU SAR (31/03/2023: 196,064 Option SAR and 57,150 RSU SAR) under the Share Appreciation Rights Scheme 2018 ("SAR 2018") to its eligible employees. The Options and RSU SAR Granted shall vest, in the manner set out in the respective vesting letters to be issued by the Company to the Grantees from time to time. The SAR 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The SAR 2018 have performance linked vesting conditions which are decided by the committee and are cash settled. The options shall lapse in case of performance linked vesting conditions are not met.

A summary of movement of SAR and weighted average exercise price (WAEP) is given below:

(₹ Crore)

	Year ended 31/03/2024				Year ended 31/03/2023			
	Option SAR		RSU SAR		Option SAR		RSU SAR	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	120,444	270.70	30,736	1.00	97,927	236.82	29,996	1.00
Granted during the year	-	-	2,666	1.00	39,370	351.58	6,485	1.00
Forfeited during the year	-	-	-	-	-	-	-	-
Exercised during the year	(33,952)	212.37	(6,990)	1.00	(16,853)	262.78	(5,745)	1.00
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at year end	86,492	293.59	26,412	1.00	120,444	270.70	30,736	1.00
Vested and Exercisable at year end	67,194	263.21	18,250	1.00	80,141	228.09	22,836	1.00

The range of exercise price of the Option SAR is ₹ 159.30 to ₹ 443.25 and RSU SAR is ₹ 1 (31/03/2023 : Option SAR is ₹ 159.30 to ₹ 443.25 and RSU SAR is ₹ 1). The fair values per Option SAR as at 31/03/2024 was ₹ 165.34 to ₹ 421.79 (31/03/2023 ₹ 102.54 to ₹ 274.24) and for RSU SAR as at 31/03/2024 was ₹ 546.73 to ₹ 556.37 (31/03/2023 ₹ 384.00 to ₹ 397.73). The fair value has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest.

The assumptions used for fair valuation for Option SAR and RSU SAR are given below:

(₹ Crore)

	Year ended 31/03/2024		Year ended 31/03/2023	
	Option SARs	RSU SARs	Option SARs	RSU SARs
Valuation Date	31/03/2024	31/03/2024	31/03/2023	31/03/2023
Exercise price (₹)	159.30 - 443.25	1.00	159.30 - 443.25	1.00
Expected volatility (%)	27.70%	27.70%	39.50%	39.50%
Expected dividend (%)	0.54%	0.54%	0.99%	0.99%
Risk free interest rate (%)	6.91 % - 7.04%	6.92 % - 7.04%	7.04 % - 7.14 %	7.04 % - 7.14 %

The weighted average remaining contractual life for the Option SAR as at 31/03/2024 is 0.86 to 4.31 years (31/03/2023: 1.70 to 5.31 years) and RSU SAR as at 31/03/2024 is 0.98 to 4.31 years (31/03/2023: 1.70 to 5.31 years).

The total intrinsic value at the end of the year of the vested Option SAR and RSU SAR is ₹ 3.78 Crore (31/03/2023 ₹ 2.86 Crore). The liability for outstanding option is of ₹ 4 Crore (31/03/2023: ₹ 3 Crore).

(b) Employee share-based payments schemes at Novelis Inc ("Novelis"), a subsidiary of the Group:

The Novelis' Board of Directors has authorized long-term incentive plans, under which Hindalco stock appreciation rights ('Hindalco SAR'), Hindalco restricted stock units ('Hindalco RSU'), and Novelis performance units ('Novelis PU') are granted to certain executive officers and key employees.

The Hindalco SARs vest at the rate of 33% per year, subject to the achievement of an annual performance target. During the year ended March 31, 2016 SARs expire in May of the seventh year from the original grant date, while the during the year ended March 31, 2017 and onwards SARs expire seven years from their original grant date. The performance criterion for vesting of the Hindalco SARs is based on the actual overall Novelis operating EBITDA compared to the target established and approved each financial year. The minimum threshold for vesting each year is 75% of each annual target operating EBITDA. Given that the performance criterion is based on an earnings target in a future period for each financial year, the grant date of the awards for accounting purposes is generally not established until the performance criterion has been defined.

Each Hindalco SAR is to be settled in cash based on the difference between the market value of one Hindalco share on the date of grant and the market value on the date of exercise. The amount of cash paid to settle Hindalco SARs is limited to three times the target payout, depending on the plan year. The Hindalco SARs do not transfer any shareholder rights in Hindalco or Novelis to a participant. The Hindalco SARs are classified as liability awards and are remeasured at fair value each reporting period until the SARs are settled.

The RSUs are based on Hindalco's stock price. The RSUs vest either in full three years from the grant date or 33% per year over three years, subject to continued employment with the Novelis, but are not subject to performance criteria. Each RSU is to be settled in cash equal to the market value of one Hindalco share. The payout on the RSUs is limited to three times the market value of one Hindalco share measured on the original date of grant. The RSUs are classified as liability awards and expensed over the requisite service period (three years) based on the Hindalco stock price as of each balance sheet date.

Notes

forming part of the Consolidated Financial Statements

(i) **Hindalco Stock Appreciation Rights (Hindalco SARs)**

(₹ Crore)

	Year ended 31/03/2024		Year ended 31/03/2023	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	7,003,371	303	8,285,624	208
Granted during the year	2,620,019	418	2,393,378	411
Forfeited during the year	(63,396)	409	(94,196)	332
Exercised during the year	(2,781,665)	158	(3,581,435)	155
Outstanding at year end	6,778,329	405	7,003,371	303
Vested and Exercisable at year end	1,914,111	391	994,206	316

(ii) **Novelis Stock Appreciation Rights (Novelis SARs)**

(₹ Crore)

	Year ended 31/03/2024		Year ended 31/03/2023	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	-	-	3,572	4,868
Granted during the year	-	-	-	-
Forfeited during the year	-	-	(1,275)	-
Exercised during the year	-	-	(2,297)	-
Outstanding at year end	-	-	-	-
Vested and Exercisable at year end	-	-	-	-

(iii) **Hindalco Restricted Stock Units (Hindalco RSUs)**

(₹ Crore)

	Year ended 31/03/2024		Year ended 31/03/2023	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	6,881,152	347.00	5,413,720	216.00
Granted during the year	1,975,035	418.00	4,426,815	411.00
Forfeited during the year	(220,470)	411.00	(156,546)	338.00
Exercised during the year	(2,574,159)	245.00	(2,802,837)	196.00
Outstanding at year end	6,061,558	411.00	6,881,152	347.00

(iv) **Particulars of share based payment**

(a) Carrying amount and intrinsic value of liabilities given below:

(₹ Crore)

	Year ended 31/03/2024		Year ended 31/03/2023	
	Total carrying amount at the end of the year for liabilities	Total intrinsic value at the end of the year of liabilities (vested portion)	Total carrying amount at the end of the year for liabilities	Total intrinsic value at the end of the year of liabilities (vested portion)
Hindalco SAR	107	37	75	9
Hindalco RSU	221	-	152	-
	328	37	227	9

(b) **Unrecognised compensation expense**

(₹ Crore)

	Year ended 31/03/2024		Year ended 31/03/2023	
	(₹ Crore)	Period over which expense will be recognised (in years)	(₹ Crore)	Period over which expense will be recognised (in years)
Hindalco SAR	35	1	21	2
Hindalco RSU	128	1	126	2

(c) Inputs to the model used to determine fair value are as under:

(₹ Crore)

	Year ended 31/03/2024		Year ended 31/03/2023	
	Hindalco SAR	Novelis SAR	Hindalco SAR	Novelis SAR
Risk free interest rate (%)	6.95% - 7.15%	0.00%	3.11% - 7.24%	0.00%
Dividend yield (%)	0.54%	0.00%	1.03%	0.00%
Volatility (%)	25.96% - 42.60%	0.00%	31.94% - 46.82%	0.00%
Source of historical volatility	Historical Hindalco volatility	Comparable companies	Historical Hindalco volatility	Comparable companies
Model used	Monte Carlo Simulation Model	Monte Carlo Simulation Model	Monte Carlo Simulation Model	Monte Carlo Simulation Model

The weighted average remaining contractual life as at Year ended 31/03/2024 for the Hindalco SAR is 5 years (31/03/2023: 5 years) and Novelis SAR is Nil (31/03/2023: less than one year)

(c) Effect of employee share-based payment transactions on profit or loss for the year and on financial position:

For the year ended 31/03/2024, the Group recognised expenses of ₹ 57 Crore (31/03/2023: expenses of ₹ 48 Crore) related to equity-settled share based transactions, whereas ₹ 254 Crore as expenses (31/03/2023: expenses ₹ 101 Crore) towards cash-settled share based transactions accounted for as part of Employee Benefits Expenses.

During the year ended 31/03/2024, the Group has allotted 21938 fully paid-up equity share of ₹ 1/- each of the Company (31/03/2023: 21861) on exercise of equity settled options for which the Group has realised ₹ 0.08 Crore (31/03/2023: ₹ 0.28 Crore) as exercise prices.

The Group has also allotted 1,379,666 (31/03/2023: 801,930) fully paid-up equity share of ₹ 1/- each of the Company through its ESOP trust on exercise of equity settled options for which the Group has realised ₹ 20 Crore (31/03/2023: ₹ 6 Crore) as exercise prices.

15. Contract liabilities

Contract liability is recognised when a payment is received from the customer before the Group transfers goods or services to the customer.

As these are contracts that the Group expects, and has the ability, to fulfill through delivery of a non-financial item, these are presented as advance from customers and are recognised as revenue as and when control of respective commodities is transferred or service is provided to the customers under the agreements.

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Advance from Customers	366	340
	366	**340**

Notes

forming part of the Consolidated Financial Statements

(a) Reconciliation of contract liabilities for the periods presented:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Balance at beginning of the year	340	375
Amount received during the year against which revenue has not been recognized	274	239
Revenue recognized during the year		
Contract liabilities at the beginning of the year	(249)	(286)
Foreign exchange gains/ (losses), net	1	12
Balance at end of the year	**366**	**340**

16. Other non-current and current liabilities

Liabilities that do not met the criteria of classifying as financial liabilities, not reported in any other categories separately but are relevant to understand Group's financial position are classified as other liabilities.

The details of other financial liabilities are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Customer Refund Liability - (a)	-	331	-	280
Statutory Dues Payables - (b)	24	1,173	64	1,164
Deferred Income - (c)	1,582	399	1,717	251
Other Payables	32	77	32	87
	1,638	**1,980**	**1,813**	**1,782**

(a) Customer refund liability are recognised mainly for discount payable to customers.

(b) Mainly includes payable towards the Indirect taxes such as Goods and Service Tax and withholding taxes etc.

(c) Deferred income mainly consist of:

(i) Grant related to Export Promotion Capital Goods (EPCG) of ₹ 584 Crore (31/03/2023: ₹ 573 Crore) in non-current portion and ₹ 21 Crore (31/03/2023: ₹ 27 Crore) in current portion.

(ii) Government grant related to Carbon Emission of ₹ 876 Crore (31/03/2023: ₹ 1050 Crore) in non-current portion and ₹ 227 Crore (31/03/2023: ₹ 224 Crore) in current portion.

(iii) Grant related to Manufacture and Other Operations in Warehouse Regulations (MOOWR) of ₹ 122 Crore (31/03/2023: ₹ 80 Crore) in non-current portion and Advance Authorisation Scheme amounting to ₹ 151 Crore (31/03/2023: ₹ Nil) in current portion.

17. Revenue from operations

The Group derives revenue principally from sale of hydrate, speciality alumina, aluminium and aluminium value added products, di-ammonium phosphate, copper, precious metals (gold and silver) and other materials.

The Group recognizes revenue when it satisfies a performance obligation in accordance with the contract with the customer. This is achieved when control of the product has been transferred to the customer, which is generally determined when legal title, physical possession, risk of obsolescence, loss and rewards of ownership pass to the customer and the Group has the present right to payment, all of which occurs at a point in time upon shipment or delivery of the product. In case of export of goods the Group considers shipping and handling activities as costs to fulfil the promise to transfer the related products and the customer payments for shipping and handling costs are recorded as a component of revenue.

In situations where revenue is recognized on shipment of goods, shipping and handling services are treated as a distinct separate performance obligation and the Group recognises revenue for such services when the performance obligation is completed and same are presented under the sale of services.

The Group considers the terms of the contract in determining the transaction price. The transaction price is based upon the amount the Group expects to be entitled to in exchange for transferring of promised goods and services to the customer after deducting incentive programs, including but not limited to discounts, volume rebates etc. Transaction price excludes taxes and duties collected on behalf of the government.

No element of significant financing is deemed present as the sales are made with a credit term, which is consistent with market practice. The Group's obligation to repair or replace faulty products under the standard warranty terms is recognised as a cost with a corresponding provision.

For certain customer contracts, final prices are determined based on the underlying market index of commodity prices at a future date, for example prices on the London Metal Exchange Limited (LME) or London Bullion Markets Association (LBMA). In such contracts, the Group records revenue on a provisional basis considering current market price when control is transferred to the customer. At the end of each period, prior to final settlement date, adjustments are made to the provisional sale price based on movements in the underlying market index of commodity prices up to the date of final price determination. Such variable price movement is accounted as other operating revenue.

Revenue from irrevocable bill and hold/ holding certificate contracts is recognised when it is probable that delivery will be made, goods have been identified and kept separately, are ready for delivery in the present condition and the Company does not have the ability to use the product or to direct it to another customer. Under these arrangements, revenue is recognised once legal title has passed and control of the asset sold is transferred to the customer.

Export incentives and subsidies are recognized when there is reasonable assurance that the Group will comply with the conditions and the incentive will be received.

Revenue excludes any taxes and duties collected on behalf of the government.

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Revenue from Contract with Customers		
Sale of Products - (b)	211,541	217,760
Trade Sales - (c)	1,889	2,300
Sale of Services - (d)	1,377	1,877
Total revenue from contract with customers	214,807	221,937
Other Operating Revenues - (b), (e), (g)	1,155	1,265
Total revenue from operations	215,962	223,202

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
a) Reconciliation of revenue recognised with contract price:		
Contract Price	213,570	221,483
Adjustments for:		
Refund Liabilities and Discounts	(823)	(808)
Hedging Gain/ (Loss)	1,965	1,159
Others - Provisionally priced contracts	95	103
Revenue from Contracts with Customers	**214,807**	**221,937**

(b) Sales of Copper products and precious metals are accounted for provisionally, pending finalization of price and quantity. Variations are accounted for in the period of settlement. Final price receivable on sale of above products for which provisional price was not finalized are realigned at year end forward LME/LMBA rate and is being presented as part of other operating revenue. Revenue from subsequent variation in price movement is gain of ₹ 22 Crore (31/03/2023: gain of ₹ 12 Crore)

(c) Includes nutrient based subsidy received from Government of India arising from sale of Di ammonium phosphate (DAP) ₹ 707 Crore (31/03/2023: ₹ 1292 Crore) to farmers.

(d) Sale of Services predominantly includes freight and insurance on certain export contracts, which are identified as separate performance obligation under Ind AS 115.

(e) Includes Government grant in the nature of export related incentives and other benefits of ₹ 335 Crore (31/03/2023: ₹ 423 Crore)

(f) Group's revenue from external customers as analysed by the country, in which customers are located is given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
India		
From Customers	65,316	59,190
From Export Incentive and other benefits	335	423
	65,651	59,613
Outside India		
United States	49,853	56,946
Brazil	17,911	20,081
South Korea	9,792	10,908
United Kingdom	6,829	5,720
Germany	8,717	10,275
China	6,728	5,713
Others	50,481	53,946
	150,311	**163,589**
Total Revenue from Operations	**215,962**	**223,202**

(g) Other operating revenues primarily includes sales related tax benefits in South America and scrap sales.

(h) Applying the practical expedient as given in Ind AS 115, the Group has not disclosed the remaining performance obligations related disclosures for contracts where revenue recognized corresponds directly with value to the customer of the Group's performance completed to date.

(i) Refer Note 30 for related party transactions.

18. Other income

Interest income

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time proportion basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Interest Income	786	559
Dividend Income	34	34
Rent Income	12	9
Income from Government Grants - (b)	259	251
Gains/ (Loss) on Property, Plant and Equipment and Intangibles Assets sold/ discarded (Net)	(85)	(41)
Gains/(Loss) on Investments Measured at FVTPL (Net)		
On sale of Financial Assets	275	205
On change of Fair Value of Financial Assets	(24)	(3)
Other Non-Operating Income (Net) - (a), (c)	239	243
	1,496	**1,257**

(a) Interest income majorily includes Interest received on deposit with Banks and customers.

(b) Grant income includes carbon emission credit allotments of ₹ 237 Crore (31/03/2023: ₹ 230 Crore) for certain operations in Europe, UK and Asia, and income associated with fixed assets investments in North America, South America, Europe and Asia. Further, it also includes grant related to Export Promotion Capital Goods Scheme. There are no unfulfilled conditions or other contigencies attached to these grants.

(c) Includes gain on repayment and modification of borrowings ₹ 146 Crore (31/03/2023: ₹ 48 Crore) resulting from change in Benchmark rate and timing of expected cash flows payments on term loans.

(d) Refer Note 30 for related party transactions.

Notes

forming part of the Consolidated Financial Statements

19. Cost of materials consumed

The details of cost of materials consumed are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Copper Concentrate - (a)	33,014	30,184
Aluminium	79,684	93,756
Bauxite	701	739
Caustic Soda	1,045	1,356
Calcined Petroleum Coke	2,909	3,624
Copper Anode	1,122	1,302
Copper Cathodes	9,865	1,672
Pitch	829	1,060
Others	1,602	2,283
	130,771	135,976
Less: Transfer to Capital work in Progress	(3)	-
	130,768	**135,976**

(a) Purchase of copper concentrate is accounted for provisionally pending finalization of contents in the concentrate and price. Variations are accounted for in the period of settlement. Final price payable on purchase of copper concentrate for which provisional price and quantity were not finalized during the year are realigned based on forward LME and LBMA rate. Impact on cost from subsequent variation in price movement was loss of ₹ 563 Crore (31/03/2023: loss of ₹ 405 Crore).

20. Purchases of stock-in-trade

The details of purchases of stock-in-trade are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Aluminium products	488	474
Fertilizer	1,254	1,073
Others	16	6
	1,758	**1,553**

21. Power and fuel

The details of power and fuel are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Power and Fuel Expenses	14,481	17,351
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(5)	(5)
	14,476	**17,346**

22. Finance cost

The Group amortize financing costs and premiums, and accrete discounts, over the remaining life of the related debt using the effective interest amortization method, unless the impact of utilizing the straight-line method results in an immaterial difference. General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. The Group considers a period of twelve months or more as a substantial period of time. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

Transaction cost in respect of long-term borrowings are amortised over the tenure of respective loans using effective interest method. All other borrowing costs are expensed in the period in which they are incurred.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

The details of finance cost are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Interest Expenses on Financial Liabilities not at FVTPL - (a)	3,986	3,618
Interest Expense for Lease Arrangements	107	89
Loss on Modification and Extinguishment of Debt - (b)	44	-
Other Borrowing Costs - (c)	37	44
	4,174	3,751
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development - (d)	(316)	(105)
Net (A-B)	**3,858**	**3,646**

(a) Includes difference between effective interest rate and contracted interest rate of ₹ 57 Crore (31/03/2023: ₹ 59 Crore) mainly from amortization of debt issuance cost.

(b) Loss on modification and extinguishment of debt for the year ended 31/03/2024 is primarily related to refinancing of 2020 Term loans amounting to ₹ 44 Crore ($ 5 Million) for the year ended March 31, 2024, Refer Note 12A for further details.

(c) Mainly includes unwinding of discount on Enterprise Social Commitment and Asset Retirement Obligations, Refer Note 13 for further details.

(d) The capitalisation rate used to determine the amount of borrowing costs capitalised across the Group ranges between 4.97% to 8.63% (31/03/2023: 4.46% to 6.61%). During the year ended March 31, 2024 ₹ 316 Crore (31/03/2023: ₹ 105 Crore) were transferred to Capital Work-in-Progress.

(e) Includes ₹ 10 Crore (31/03/2023: ₹ 3 Crore) paid to Income Tax Department.

23. Impairment loss/ (reversal) on financial assets (net)

For the accounting policy of Impairment of financial assets refer Note 5.

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Provision for Doubtful Debts, Loans and Other Financial Assets / (written back) (Net)	24	11
Bad Debts Loans and Other Financial Assets/ (written back) (Net)	1	-
	25	**11**

Notes

forming part of the Consolidated Financial Statements

24. Other expenses

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Consumption of Stores and Spares	4,847	4,801
Repairs to Buildings	413	391
Repairs to Machinery	3,970	3,661
Rates and Taxes	270	241
Leases Expenses - (a)	385	461
Insurance Charges	434	425
Payments to Auditors	88	80
Research and Development	848	796
Freight and Forwarding Expenses (Net) - (b)	7,324	7,915
Donation - (c)	101	36
Non Executive Directors' Fees and Commission	15	14
Tolling Expenses	1,639	1,546
(Gain)/ Loss on Change in Fair Value of Derivatives (Net)	(381)	508
(Gain) /Loss on Foreign Currency Transactions and Translation (Net)	138	219
Miscellaneous Expenses	8,532	8,075
	28,623	29,169
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(27)	(31)
	28,596	**29,138**
a) Details of lease expenses not included in the measurement of lease liabilities:		
Short Term Leases	170	277
Variable Lease Payments	197	167
Leases of Low Value Assets	18	17
	385	**461**

(b) Freight and forwarding expenses are net of freight subsidy of ₹ 35 Crore (31/03/2023: ₹ 29 Crore) received on sale of DAP.

(c) Donation includes ₹ 100 Crore (31/03/2023: ₹ 35 Crore) was made through Electoral Bonds Scheme, 2018 notified by the Government of India. On 15 February, 2024, the 5 Judges Constitution Bench of the Hon'ble Supreme Court in an unanimous judgment in Association for Democratic Reforms v. Union of India [2024] INSC 113, has struck down the Electoral Bond Scheme and amendments made vide Finance Act 2017 to several legislations, including Section 182 of the Companies Act, 2013 as unconstitutional. Hon'ble Supreme Court has not specified in the judgment dated 15 February 2024 whether the declaration of unconstitutionality of electoral bonds scheme and the amendments made vide Finance Act 2017 applies prospectively or retrospectively. The Group has received legal advice that the unamended provisions of Section 182 of the Companies Act 2013 as existing prior to promulgation of Finance Act 2017 (pertaining to limits on political contributions and requirement of disclosure of name of political parties to which contributions were made through electoral bonds) cannot be made applicable to the electoral bonds purchased by the Group prior to the date of the judgment (i.e., 15.02.2024), as the same would be violative of Article 20(1) of the Constitution of India.

Notwithstanding the above, the contribution made to different political parties by the Group are Bharatiya Janata Party ₹ 40 Crore (31/03/2023: ₹ 35 Crore) and Biju Janata Dal ₹ 60 Crore (31/03/2023: ₹ Nil).

(d) Refer Note 30 for related party transactions.

25. Exceptional income/ (expenses) (net)

The Group considers certain items of income/ (expenses) as exceptional items are presented separately. These items are considered to be part of ordinary activities, however are of such significance and nature that separate disclosure enables the user of the financial statements to understand the impact in a more meaningful manner. Such items are identified by virtue of their size, nature and incidence so as to facilitate comparison with prior periods and to assess underlying trends in the financial performance of the Group.

Details of Exceptional Income/ (Expenses) are given below:

(₹ Crore)

		Year ended	
		31/03/2024	31/03/2023
(a)	**Exceptional Income:**		
(i)	Reversal of provision made during the previous year towards Cross Subsidy Surcharge (CSS) and Additional Surcharge (ASC) related to FY 2017-18 and FY 2018-19. This reversal was affected pursuant to the undertaking given by MSEDCL (Maharashtra State Electricity Distribution Co. Ltd.) to Maharashtra Electricity Regulatory Commission (MERC) on July 29, 2022, to refund CSS and commencement of ASC refund.	-	41
(ii)	During FY 2022, pursuant to the notifications issued by the Ministry of Environment, Forest and Climate Change (MoEFCC), the Group had recognised provision for expected cost of disposal of legacy ash lying in ash dykes/ponds. During the year ended March 31, 2024, in view of the regulatory approval received on closure of few ash dykes/ponds, the Group has reversed provision which is accounted as an Exceptional Income.	63	-
	Total (A)	**63**	**41**
(b)	**Exceptional Expenses:**		
(i)	Pursuant to the notification by Ministry of Environment, Forest and Climate Change (MoEFCC), the Group has recognised provision for expected cost of disposal of legacy ash lying in ash dykes/ponds. The above provision is estimated based on the plan for disposal of ash and stabilisation of ash dykes/ponds (subject to approval of Pollution Control Board) considering feasibility of extraction of ash from ash dykes/ponds.	(42)	-
	Total (B)	(42)	-
	Net (A-B)	**21**	**41**

26. Other comprehensive income/ (loss)

The disaggregation of changes to other comprehensive income (OCI) by each class is given below:

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Gross	Tax	Net	Gross	Tax	Net
(i)	**Items that will not be reclassified to Statement of Profit and Loss**						
	Remeasurement of Defined Benefit Obligation, Refer Note 14B	(223)	77	(146)	969	(269)	700
	Change in Fair Value of Equity Instruments Designated as FVTOCI	2,800	(319)	2,481	(494)	70	(424)
		2,577	(242)	2,335	475	(199)	276
(ii)	**Items that will be reclassified to Statement of Profit and Loss**						
	Change in Fair Value of Trade Receivables Designated as FVTOCI	(77)	23	(54)	-	-	-
	Change in Fair Value of Debt Instruments Designated as FVTOCI	8	(3)	5	(13)	4	(9)
	Effective Portion of Cash Flow Hedges	(850)	245	(605)	7,773	(2,326)	5,447
	Cost of Hedging Reserve	(36)	13	(23)	64	(22)	42
	Foreign Currency Translation Reserve	272	-	272	1,704	-	1,704
		(683)	278	(405)	9,528	(2,344)	7,184
	Other Comprehensive Income/(Loss) for the year	**1,894**	**36**	**1,930**	**10,003**	**(2,543)**	**7,460**

Notes

forming part of the Consolidated Financial Statements

27. Earnings per share (EPS)

Basic earnings per share is computed by dividing the net profit for the period attributable to the equity shareholders of the Company by the weighted average number of equity shares outstanding during the period. The weighted average number of equity shares outstanding during the period and for all periods presented is adjusted for events, such as bonus shares, other than the conversion of potential equity shares that have changed the number of equity shares outstanding, without a corresponding change in resources. Partly paid-up shares are included as fully paid equivalents according to the fraction paid-up.

Diluted earnings per share adjusts the figures used in the determination of basic earnings per share to take into account the after income tax effect of interest and other financing costs associated with dilutive potential equity shares and the weighted average number of additional equity shares that would have been outstanding assuming the conversion of all dilutive potential equity shares.

Treasury shares are excluded from weighted average numbers of equity shares used as a denominator in the calculation of basic as well as diluted earnings per share.

Earnings per share, earnings and number of shares are used as under:

(₹ in Crores unless otherwise stated)

	Year ended	
	31/03/2024	31/03/2023
Profit/ (Loss) for the year		
As per Consolidated Statement of Profit and Loss	10,155	10,097
Less: Non-Controlling Interests in Profit/ (Loss)	-	-
Profit/ (Loss) attributable to Owners of the Company	10,155	10,097
Weighted average numbers of equity shares for calculation of EPS:		
Weighted average numbers of equity shares for Basic EPS	2,221,621,353	2,222,884,407
Dilutive impact of Employee Stock Options Scheme	2,778,249	2,922,977
Weighted average numbers of equity shares for Diluted EPS	2,224,399,602	2,225,807,384
Face value per Equity Share (₹)	1.00	1.00
Earnings Per Share		
Basic (₹)	45.71	45.42
Diluted (₹)	45.65	45.36

Stock options granted to the employees under various ESOP schemes are considered to be potential equity shares. They have been included in the determination of diluted earnings per share to the extent to which they are dilutive. 469,370 shares (31/03/2023: 833,136 shares) options granted under Employee Stock option scheme but were not included in the calculation of diluted earnings per share because they are antidilutive for the period. Options can potentially dilute basic earnings per share in the future depending on future share price of the Company. The stock options have not been included in the determination of basic earnings per share. The details relating to stock options are under Note 14B (II).

28. Government Grants

Government grants are recognized at fair value when there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants whose primary condition is that the Group should purchase, construct or otherwise acquire Non-Current assets are recognized in the Consolidated Balance Sheet by setting up the grant as deferred income. Grants arising on acquisition of non-current assets are accounted as deferred income and amortization is recognised in 'Other Income' on straight line basis over the expected useful lives of related assets.

Other government grants (grants related to income) are recognized as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of providing immediate financial support with no future related costs are recognized in the Consolidated Statement of Profit and Loss in the period in which they become receivable.

Grants related to income are presented under Other Income or Other Operating Revenue in the consolidated statement of profit and loss depending upon the nature of the underlying grant, except for grants received in the form of rebate or exemptions related to expenditures, which are deducted in reporting the related expense.

The Group is eligible for various Government grants such as Export Promotion Capital Goods (EPCG), Manufacture and other Operations in Warehouse Regulations (MOOWR) Scheme, Advance Authorisation (AA) scheme, Carbon Emission Credit, etc.

Export Promotion Capital Goods (EPCG)

Under the EPCG scheme, the Group imports capital goods without payment of customs duty and in return the group is required to fulfil export obligation within certain years equivalent to certain times of duty that has been saved while importing. Grants are recognised in "Capital Work In Progress/Non-Current Asset" (PPE) at fair value with the corresponding recognition under deferred income.

Manufacture and other Operations in Warehouse Regulations (MOOWR) Scheme

Under the MOOWR Scheme, the Group conducts manufacturing or other operations in a Customs bonded warehouse and imports goods under customs duty deferment. The deferment stands without any time limitation. Grants are recognised in "Capital Work In Progress/Non-Current Asset" (PPE) at fair value with the corresponding recognition under deferred income.

Advance Authorisation

Advance Authorization licenses are issued against import of inputs which are used in manufacturing of an export product and there is obligation to export the finished goods. Thus, we account it in nature of "Income" as "Revenue Approach". Grants are recognised in Inventory at the fair value of grant i.e., the duty saved.

Carbon Emission Credit

The Group recognises carbon emission credit allotments for certain operations in Europe, UK and Asia, and income associated with fixed asset investments in North America, South America, Europe, and Asia. There are no unfulfilled conditions or other contingencies attached to these grants.

Emission allowances are initially recognised as an intangible asset measured at fair value when the Group is granted the allowances and able to exercise control with a corresponding recognition of a grant at the same amount under deferred income. Liability related to Carbon Emission allowances is recognised based on actual emission. The provision is measured at the carrying amount of allowances to the extent that the provision will be settled using allowances on hand with any excess emission being measured at the market value of the allowances at the period end. The group records the expense in the Consolidated Statement of Profit and Loss under other expenses.

Emission allowances are not amortised as their carrying value equals their residual value and therefore the depreciable basis zero, as their value is constant until delivery to the authorities. Emission allowances are subject to impairment test.

When the emission allowances for the carbon dioxide emitted are delivered to the authorities, the intangible asset as well as the corresponding provision are de-recognized from the consolidated balance sheet without any effect on the Consolidated Statement of Profit and Loss.

Carbon emission credits are recognised at fair value upon receipt of government grants for operations in Europe and Asia, which becomes their cost basis. These credits are utlised on a systematic basis over the applicable grant life (Annual basis for Asia and over the seven year period for Europe).

Refer Note 3F - Intangible assets for Balance sheet movement of Carbon emission.

Refer Note 16 - Other liabilities for the details of Capital grant outstanding as "Defered Income".

Refer Note 17 for the details of export related Incentives and other benefits recognised under "Other Operating Revenues".

Refer Note 18 for the details of EPCG grant recognised under "Other Income".

Refer Note 24 for the details of Freight Subsidy recognised as net of Freight and Forwarding Expenses under "Other Expenses".

29. Segment information:

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the Chief Operating Decision Maker ("CODM") to make decisions for which discrete financial information is available. The Group prepares its segment information in conformity with the accounting policies adopted for preparing and presenting the financial statements of the Group as a whole. The CODM assesses the financial performance and position of the Group and makes strategic decisions. Operating segments are reported in a manner consistent with the internal reporting provided to the CODM and there is no change as compared to previous year.

Allocation of common costs

Common allocable costs are allocated to each segment according to the relative contribution of each segment to the total common costs.

Inter-segment transfers

Inter-segment revenue has been accounted for based on the transaction price agreed to between segments which is based on current market prices.

Unallocated items

Item of income, expenses, assets and liabilities which are part of more than one operating segments are not allocated to individual segment as they does not attributable to any specific segment. Such items are presented as separate line item or clubbed under 'corporate/ unallocated income and expenses/ assets / liabilities' as part of reconciliation.

The Group is primarily engaged in the business of manufacture and distribution of aulminium, copper and its products across the globe. The CODM examines the Group performance both from a performance and geographical perspective and accordingly based on the information reviewed by the CODM, the Group has identified following four reportable segments of its business. The CODM, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Company's Board of Directors.

(1) **Novelis segment**: This segment represents Novelis Inc, a wholly owned foreign subsidiary of the Company and it's step down subsidiaries engaged in producing and selling aluminium sheet and light gauge products and operating in four continents viz. North America, South America, Europe, and Asia. This is identified as a separate segment based on its geographical area and regulatory environment.

(2) **Aluminium upstream segment**: This segment represents Aluminium Upstream business namely Bauxite & Coal Mining, Alumina Specials, Refineries, Metal and Power. This is identified as separate segment based on its nature of products and different risks and returns.

(3) **Aluminium downstream segment**: This segment represents aluminium downstream business of the Group which include aluminium value-added products e.g., flat rolled products, extrusion, foils. This is identified as separate segment based on its nature of products and different risks and returns.

(4) **Copper segment:** This segment represents copper business of the Group e.g. copper cathode, copper rods, precious metals and di-ammonium phosphate (DAP). This is identified as separate segment based on its nature of products and different risks and returns.

The CODM primarily uses a measure of adjusted earnings from continuing operations before interest, tax and depreciation and amortization excluding certain items of income amd expenses (Adjusted EBITDA). The CODM also receives information about the segment's revenue, assets and liabilities on a regular basis. The information of Group's reportable segments is given below:

(A) **Segment adjusted EBITDA:**

For Aluminium Upstream, Aluminium Downstream and Copper segment, Adjusted EBITDA is the earnings from Continuing Operations before (a) finance cost, (b) tax, (c) depreciation and amortization, (d) impairment of non-current assets, (e) exceptional items, (f) investment income, (g) fair value gains/ (losses) on financial assets, (h) share in profit/ (loss) in equity accounted investments, (i) metal price lag (the base metal price movement between the procurement at transfer price from the Aluminium Upstream segment and sale price of the Aluminium Downstream segment), (j) corporate income/ expenses, and (k) certain unallocable income/ (expenses) which are not directly related to the performance of any specific segment.

For Novelis segment, Adjusted EBITDA is the earnings from Continuing Operations before (a) depreciation and amortization; (b) finance cost - net; (c) interest income; (d) unrealized gains or losses on change in fair value of derivative instruments, net, except for foreign currency remeasurement hedging activities, which are included in Adjusted EBITDA; (e) impairment loss or reversal on non financial assets, net; (f) gain or loss on extinguishment of debt; (g) restructuring costs; (h) profit or loss on plant property and equipment and intangibles sold or discarded, net; (i) other costs/income, net; (j) litigation settlement, net of insurance recoveries; (k) sale transaction fees; (l) cumulative effect of accounting change, net of tax; (m) metal price lag; (n) exceptional income or cost; (o) business acquisition and other integration related costs; (p) purchase price accounting adjustments; and (q) gains or losses from discontinued operations, net of tax; (r) tax expenses/ (benefits), which is in line with the segment information for Novelis that has been reported in accordance with its US GAAP financial information filed with the Securities Exchange Commission of the United States of America. Recognition and measurement differences between US GAAP and Ind AS accounting policies have been separately presented as part of reconciliation in the segment information. Gains and losses on metal derivative contracts are not recognized in "Adjusted EBITDA" until realized.

(a) Segment Adjusted EBITDA are as follows:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Novelis	15,507	14,543
Aluminium Upstream	9,161	8,402
Aluminium Downstream	573	627
Copper	2,616	2,253
Total Adjusted EBIDTA	27,857	25,825

Notes

forming part of the Consolidated Financial Statements

(b) Reconciliation of adjusted EBITDA to profit/ (loss) before tax is as follows:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Total adjusted EBIDTA	27,857	25,825
Finance cost	(3,858)	(3,646)
Depreciation and amortization expense	(7,521)	(7,086)
Impairment (loss)/ reversal of non-current assets (Net)	(360)	(208)
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)	2	9
Exceptional income / (expenses) (Net)	21	41
Interest income	677	460
Dividend income	34	34
Gains/ (losses) on financial investments measured at FVTPL (Net)	251	202
Adjustment on account of different accounting policies for novelis segment	105	152
Inter-segment profit/ (loss) elimination (Net)	(60)	414
Other unallocated income/ (expenses) (Net)	(3,136)	(2,956)
Profit/ (Loss) before Tax	14,012	13,241

(c) Following amount are either included in the measure of segment's adjusted EBITDA reviewed by the CODM or are regularly provided to the CODM:

(₹ Crore)

	Year ended 31/03/2024					Year ended 31/03/2023				
	Novelis	Aluminium upstream	Aluminium downstream	Copper	Total	Novelis	Aluminium upstream	Aluminium downstream	Copper	Total
Interest income - (i)	-	35	-	74	109	-	27	2	70	99
Depreciation and amortization expense - (ii)	5,140	1,823	276	200	7,439	4,787	1,833	218	179	7,017
Impairment loss/ (reversal) of non-current assets (Net)-(ii)	360	-	-	-	360	155	-	(12)	65	208

(i) Represents interest income from customers/ security deposits etc. which are included in the measure of segment Adjusted EBITDA.

(ii) Not included in the measure of segment Adjusted EBITDA but provided to the CODM.

(B) Segment revenue:

For aluminium upstream, aluminium downstream and copper segment, the segment revenue is measured in the same way as measured in the statement of profit and loss.

In case of novelis segment, CODM reviews its financial performance as those are reported under US GAAP, accordingly Novelis segment revenue is measured as the revenue reported under US GAAP financial reporting. The difference between 'Segment Revenue' reported under USGAAP and 'Revenue' reported under Ind AS together with any adjustment item identified between US GAAP and Ind AS is shown as "'Different accounting policies adjustment".

(a) Sales between operating segments are carried at arm's length and eliminated on consolidation. Segment Revenue and reconciliation of the same with total revenue as follows:

(₹ Crore)

	Year ended 31/03/2024				Year ended 31/03/2023			
	Segment revenue	Inter-segment revenue	Different accounting policies adjustment	Revenue from external customers	Segment revenue	Inter-segment revenue	Different accounting policies adjustment	Revenue from external customers
Novelis	134,175	-	(3,241)	130,934	148,471	-	(3,839)	144,632
Aluminium Upstream	32,382	(6,971)	-	25,411	33,010	(7,038)	-	25,972
Aluminium Downstream	10,531	(215)	-	10,316	11,009	(93)	-	10,916
Copper	49,321	(20)	-	49,301	41,702	(20)	-	41,682
Total	226,409	(7,206)	(3,241)	215,962	234,192	(7,151)	(3,839)	223,202

(b) During the year there was no customer from which the Group has more than 10% of Group's total "Revenue from Operations". But during the previous year the Group had single external customer from which there was more than 10% of Group's total "Revenue from Operations" amounting to ₹ 23,632 Crore, this revenue is attributed to the Novelis segment.

(c) The Group is primarily engaged in the Aluminium and the Copper Business. The Group's revenue from operations by nature of business are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Aluminium Business	166,661	181,520
Copper Business	49,301	41,682
	215,962	223,202

(d) The Group's operations are located in India and outside India. The amount of its revenue from external customers analysed by the country in which customers are located irrespective of origin of the goods or services are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
India *	65,651	59,613
Outside India	150,311	163,589
	215,962	223,202

* Includes Export Incentive and other benefits, Refer Note 17(e).

(C) Segment assets:

For aluminium upstream, aluminium downstream and copper segment, assets are allocated based on the operations of the segment and the physical location of the asset. However, certain assets like investments, equity accounted investments, loans, assets classified as held for sale, current and deferred tax assets are not considered to be segment assets. Further, corporate administrative assets of an entity having operation which are part of more than one reporting segments are not allocated to individual segments as they are generally managed at corporate levels and are not linked to any specific segment.

For Novelis segment, segment assets are measured at the amount of total assets of Novelis Inc. as reported under US GAAP financial reporting. The difference between 'Segment Assets' reported under USGAAP and 'Total Assets' reported under Ind AS together with any adjustment items identified between US GAAP and Ind AS is presented as "Adjustment on account of different accounting policies for Novelis Segment" as part of reconciliation.

Notes

forming part of the Consolidated Financial Statements

(a) Segment assets and reconciliation of the same with total assets are as follows:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Novelis	121,953	118,015
Aluminium upstream	46,183	48,277
Aluminium downstream	8,598	6,405
Copper	18,297	17,892
Total segment assets	195,031	190,589
Investment properties	46	20
Investments (non-current and current)	15,334	14,037
Equity accounted entities	110	79
Adjustment on account of different accounting policies for Novelis Segment	13,522	13,448
Other corporate assets	7,864	6,644
Total assets	231,907	224,817

(b) During the year ended March 31, 2024, capital expenditure relating to Novelis, aluminium upstream, aluminium downstream and copper segments are ₹ 11246 Crore, ₹ 1512 Crore, ₹ 2011 Crore and ₹ 575 Crore, respectively (31/03/2023: ₹ 6313 Crore, ₹ 1746 Crore, ₹ 876 Crore and ₹ 319 Crore, respectively).

(c) Investment in associates and joint ventures accounted for by the equity method are not allocated to any of the reportable segment.

(d) The total of Non-Current assets excluding goodwill, financial assets, equity accounted investments and deferred tax assets analysed by the country in which assets are located are given below.

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
India	46,843	44,602
Outside India - (i)	59,455	52,220
	106,298	96,822

(i) Major geography wise break up of non-current asset located outside India:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
United States	28,926	27,151
Asia and Other Pacific	9,679	7,499
Brazil	7,391	7,324
Canada	537	410
Germany	4,717	4,473
Rest of Europe	8,205	5,363
	59,455	52,220

(D) **Segment liabilities:**

For Aluminium upstream, aluminium downstream and copper segment, liabilities are allocated based on the operations of the segment. Items like borrowings, current and deferred tax liabilities, liabilities associated with disposal group classified as held for sale etc. are not considered to be segment liabilities. Further, corporate administrative liabilities of an entity having operation which are part of more than one reporting segments are not allocated to individual segments as they are generally managed at corporate levels and does not linked to any specific segment.

In case of Novelis segment, segment liabilities are measured at the amount of all the liabilities of Novelis Inc., except borrowings, as reported under US GAAP financial reporting. The difference between 'Segment Liabilities' reported under USGAAP and 'Total Liabilities' reported under Ind AS, together with any adjustment items identified between US GAAP and Ind AS is presented as "Adjustment on account of different accounting policies for Novelis Segment" as part of reconciliation.

(a) Segment liabilities and reconciliation of the same with total liabilities as follows:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Novelis	43,021	43,298
Aluminium upstream	5,412	5,656
Aluminium downstream	1,417	1,062
Copper	12,049	13,376
Total segment liabilities	61,899	63,392
Adjustment on account of different accounting policies for novelis segment	1,161	1,247
Borrowings (non-current and current)	54,501	58,335
Other corporate liabilities	8,189	7,026
Total liabilities	125,750	130,000

30. Related party disclosures

The Group's related parties principally consist of its associates, joint ventures, other related parties and its key managerial personnel. The Group routinely enters into transactions for sale and purchase of products and rendering and receiving services with these related parties which are at arms length and in the ordinary course of business. Transactions and balances between the parent, subsidiaries and fellow subsidiaries and trusts, which are related parties of the Company, have been eliminated on consolidation. List of the related parties required to be given as per Ind AS 24 - Related Party Disclosure, and the details of transactions and balances between the Group and its related parties required to be disclosed are as follows:

(a) **List of related parties with joint control and significant influence:**

Sr.	Name of the related party	Relationship#
1	Aditya Birla Science & Technology Company Private Limited	Associate
2	Aditya Birla Renewables Subsidiary Limited	Associate
3	Aditya Birla Renewables Utkal Limited	Associate
4	Aditya Birla Renewables Solar Limited	Associate
5	Ayana Renewable Power Four Private Limited	Associate
6	Big Blue Technologies Inc.	Associate
7	France Aluminum Recyclage SPA.	Associate
8	Deutsche Aluminum Verpachung Recycling GMBH*	Associate
9	MNH Shakti Limited	Joint Venture
10	Hydromine Global Minerals (GMBH) Limited	Joint Venture

For country of incorporation, principal place of operation and ownership interest, refer Note 1(C).

* Deutsche Aluminium Verpackung Recycling GmbH was dissolved on July 13, 2023.

Notes

forming part of the Consolidated Financial Statements

(b) **Key managerial personnel:**

Sr.	Name of the related party	Relationship
1	Mr. Satish Pai - Managing Director	Executive Director
2	Mr. Praveen Maheshwari - Whole time Director & Chief Financial Officer	Executive Director
3	Mr. Kumar Mangalam Birla	Non Executive Director
4	Smt. Rajashree Birla	Non Executive Director
5	Mr. A.K.Agarwala	Non Executive Director
6	Mr. K.N. Bhandari	Non Executive Director
7	Mr. Y.P. Dandiwala	Non Executive Director
8	Mr. Anant Maheshwari (resigned w.e.f. October 18, 2023)	Non Executive Director
9	Ms. Alka Bharucha	Non Executive Director
10	Dr. Vikas Balia	Non Executive Director
11	Mr. Sudhir Mital	Non Executive Director

(c) **Other related parties with whom there were transactions during the year:**

Sr.	Name of the related party	Relationship
1	Hindalco Employee's Gratuity Fund	Post-employment benefit plan
2	Hindalco Employee's Provident Fund Institution	Post-employment benefit plan
3	Hindalco Superannuation Scheme	Post-employment benefit plan
4	Hindalco Industries Limited Employee's Provident Fund II	Post-employment benefit plan
5	Hindalco Industries Limited Senior Management Staff Pension Fund II	Post-employment benefit plan
6	Aditya Birla Management Corporation Private Limited @	Other related party in which director is interested

@ The Company and its subsidiary, Utkal Alumina International Limited, are members of Aditya Birla Management Corporation Private Limited (ABMCPL), a company limited by guarantee formed for the purpose of its members to mutually avail and share common facilities, expertise and other support charged on cost basis.

(d) **The following transactions were carried out with the related parties:** ** ^

(₹ Crore)

	Nature of Transaction	Relationship	Year ended	
			31/03/2024	31/03/2023
(i)	**Sales of goods**		**1**	**2**
	Aditya Birla Renewables Subsidiary Limited	Associate	-	2
	Aditya Birla Management Corporation Private Limited	Other related party	1	-
(ii)	**Services rendered**		**12**	**11**
	Aditya Birla Management Corporation Private Limited	Other related party	12	11
(iii)	**Interest received**		**2**	**2**
	Aditya Birla Science & Technology Company Private Limited	Associate	2	2
(iv)	**Dividend received**		**1**	**-**
	Aditya Birla Renewables Subsidiary Limited	Associate	1	-
(v)	**Purchase of goods**		**60**	**36**
	Aditya Birla Renewables Subsidiary Limited	Associate	14	13
	Aditya Birla Renewables Solar Limited	Associate	43	20
	Aditya Birla Renewables Utkal Limited	Associate	3	3
(vi)	**Services received**		**892**	**853**
	Aditya Birla Science & Technology Company Private Limited	Associate	23	21
	Aditya Birla Management Corporation Private Limited	Other related party	869	832
(vii)	**Investments made**		**30**	**17**
	Aditya Birla Renewables Solar Limited	Associate	18	17
	Ayana Renewable Power Four Private Limited	Associate	8	-
	Big Blue Technologies Inc.	Associate	4	
(viii)	**Deposits, loans and advances received back from**		**5**	**7**
	Aditya Birla Science & Technology Company Private Limited	Associate	5	7
(ix)	**Reimbursement of expenses from**		**1**	**1**
	Aditya Birla Management Corporation Private Limited	Other related party	1	1
(x)	**Reimbursement of expenses to**		**2**	**1**
	Aditya Birla Management Corporation Private Limited	Other related party	2	-
	Aditya Birla Science & Technology Company Private Limited	Associate	-	1

^ For transactions with funds covered under Post-Employment Benefit Plan, please Refer Note 14B

(e) **Outstanding balances with related parties#** **

(₹ Crore)

	Nature of transaction/relationship	Relationship	Year ended	
			31/03/2024	31/03/2023
(i)	**Receivables**		**1**	**-**
	Aditya Birla Management Corporation Private Limited	Other related party	1	-
(ii)	**Payables**		**19**	**103**
	Aditya Birla Renewables Subsidiary Limited	Associate	1	1
	Aditya Birla Renewables Solar Limited	Associate	7	3
	Aditya Birla Renewables Utkal Limited	Associate	-	1
	Aditya Birla Management Corporation Private Limited	Other related party	11	98

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	Nature of transaction/relationship	Relationship	Year ended 31/03/2024	Year ended 31/03/2023
(iii)	**Loans, deposits and advances given**		**56**	**123**
	Aditya Birla Science & Technology Company Private Limited	Associate	24	29
	Aditya Birla Management Corporation Private Limited	Other related party	32	94
(iv)	**Receivable against reimbursement**		**1**	**1**
	Aditya Birla Management Corporation Private Limited	Other related party	1	1
(v)	**Receivable against reimbursement**		**2**	**-**
	Aditya Birla Management Corporation Private Limited	Other related party	2	-

all outstanding balances are unsecured and are payable/ receivables in cash.

** Related parties having transactions / Balances less than ₹ 0.49 Crore are not disclosed above because of rounding off.

Outstanding trade receivable and payable balances at the year-end are unsecured and interest free and settlement occurs in cash. There have been no guarantees provided or received for any related party receivables or payables. For the year ended 31 March 2024, the Group has not recorded any impairment of receivables relating to amounts owed by related parties (31 March 2023: INR Nil). This assessment is undertaken each financial year through examining the financial position of the related party and the market in which the related party operates.

(f) Compensation of Key Managerial Personnel (KMP) of the Company

(₹ Crore)

	Nature of transaction/relationship	Year ended 31/03/2024	Year ended 31/03/2023
(i)	**Remuneration of executive directors - (i) and (ii)**	**40**	**46**
	Short term employment benefit - (iii)	38	44
	Post employment benefits	2	2
(ii)	**Remuneration to non executive director**		
	Director commission and sitting fees	**6**	**6**
	Mr. Kumar Mangalam Birla	-	-
	Smt. Rajashree Birla	3	3
	Mr. A.K. Agarwala	-	-
	Mr. K.N. Bhandari	1	1
	Mr. Y.P. Dandiwala	1	1
	Ms. Alka Bharucha	-	-
	Dr. Vikas Balia	1	1
	Mr. Sudhir Mital	-	-
	Mr. Anant Maheshwari (resigned w.e.f. October 18, 2023)	-	-

(i) Excludes amortization of fair value of employee share-based payments under Ind AS 102.

(ii) As the liabilities for defined benefit plans and leave entitlements are provided on actuarial basis for the Company as a whole, the amounts pertaining to key management personnel are not included.

(iii) Includes director fees paid by the foreign subsidiary.

31. Contingent liabilities and commitments

Contingent liabilities and assets

A contingent liability is a possible obligation that arises from a past event, with the resolution of the contingency dependent on uncertain future events, or a present obligation where no outflow is probable. Material contingent liabilities are disclosed in the consolidated financial statements unless the possibility of an outflow of economic resources is remote. Contingent assets are not recognized in the consolidated financial statements unless it is virtually certain that the future event will confirm the asset's existence and the asset will be realised.

(A) Contingent liabilities

The Group is party to, and may in the future be involved in, or subject to, disputes, claims and proceedings arising in the ordinary course of business, including some we assert against others, such as environmental, health and safety, product liability, employee, tax, personal injury and other matters. The Group has established a liability with respect to contingencies for which a loss is probable and estimable. While the ultimate resolution of and liability and costs related to these matters cannot be determined with certainty, the Management does not believe any of these pending actions, individually or in the aggregate, will materially impact our operations or materially affect our financial condition or liquidity. The Group's estimates involve significant judgment, and therefore, the estimate will change from time to time and actual losses may differ from the current estimate

Management reviews the status of, and estimated liability related to, pending claims and civil actions on a quarterly. The evaluation model includes all asserted and unasserted claims that can be reasonably identified including claims relating to our responsibility for compliance with environmental, health and safety laws and regulations in the jurisdictions in which the Group operate or formerly operated. The estimated costs in respect of such reported liabilities are not offset by amounts related to insurance or indemnification arrangements unless otherwise noted.

Critical accounting judgement and key sources of estimation uncertainty:

There are various legal, direct and indirect tax matters and other obligations including environmental, mining, local and state levies, income tax holiday, availing input tax credits etc., which may impact the Group. Evaluation of uncertain liabilities and contingent liabilities and assets arising out of above matters require management judgment and assumptions, regarding the probability of outflow or realization of economic resources and the timing and amount, or range of amounts, that may ultimately be determined. Such estimates may vary from the ultimate outcome as a result of differing interpretations of laws and facts, or application of relevant judicial precedents.

The amount for which the Group is contingently liable are given below:

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
(a)	**Claims against the Group not acknowledged as debt**		
	Direct taxes matters - (i)	3	5
	Indirect taxes matters - (ii)	912	1,082
	Legal and other matters - (iii)	288	204
	(i) Direct taxes matters: The Group has ongoing disputes with direct tax authorities in various tax jurisdictions relating to tax treatment of certain items in the Company and some of its subsidiaries. These mainly include claims disallowed, tax treatment of certain items of income/expense, use of certain tax incentives or allowances, etc. in their tax computation.		
	(ii) Indirect taxes matters: There are pending litigations for various matters relating to customs, excise duty and service tax, VAT etc. at across various entities in the Group involving demands, including interest and penalties.		
	(iii) Legal and other matters: In addition to above matters certain Group companies are involved in several other legal claims including revenue matters, environmental matters, civil and Labour matters.		
	It is not practicable for the Group to estimate the timing of cash outflows, if any, in respect of the above matters, pending resolution of the respective proceedings.		
(b)	**Other money for which the Group is contingently liable:**		
	Customs duty on raw materials imported under advance license, against which export obligation is to be fulfilled.	-	14

Notes

forming part of the Consolidated Financial Statements

(B) Commitments

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
The Group's commitments with regard to various items in respect of:			
(a)	Estimated amount of contracts remaining to be executed on capital account and not provided for	4,496	2,588
(b)	Other Commitment for purchase of goods and Services (Net of Advance)	82,865	130,268
(c)	During the year, the Group has entered into an agreement to invest in Ayana Renewable Power Four Private Limited (ARPFPL), a Special Purpose Vehicle (SPV). The Group will subscribe for 26% equity shares in the SPV. During the year, the Group has subscribed to its 8,125,000 equity shares amounting to ₹ 8 Crore and is committed to finance a total of ₹ 169 Crore towards capital investment in the form of debt and equity, as per the arrangement and expected project expense.		
(d)	The Group has subscribed 954,121 shares as its right issue entitlement from Grasim Industries Limited (Grasim) at ₹ 1812 per share (Face value of ₹ 2 per share and Premium of ₹ 1810 per share). Group has already paid ₹ 43 Crore as an application and first call amount on January 09, 2024. Call money amounting to ₹ 130 Crore is to be paid in three instalment as and when the same is demanded by board/ right issue committee of Grasim on or prior to March 2026.		

32. Capital management

The Group's objective to manage its capital is to ensure continuity of business while at the same time provide reasonable returns to its various stakeholders but keep associated costs under control. In order to achieve this, requirement of capital is reviewed periodically with reference to operating and business plans that take into account capital expenditure and strategic investments. Apart from internal accrual, sourcing of capital is done through judicious combination of equity and borrowing, both short term and long term. Net debt (total borrowings + lease liabilities) to equity ratio is used to monitor capital. No changes were made to the objectives, policies or processes for managing capital during the year ended 31/03/2024 and 31/03/2023.

(₹ Crore)

	As at 31/03/2024	As at 31/03/2023
Borrowings	54,501	58,335
Lease liabilities	1,855	1,956
Total debt	56,356	60,291
Owner's equity	106,146	94,806
Debt equity ratio (in times)	0.53	0.64

As at March 31, 2024 and March 31, 2023, the Group is in compliance with all of its debt covenants for borrowings.

The Parent Company is required to maintain the Debt Service Coverage Ratio of 1.25 times. For the the year ended 31/03/2023 the Debt Service Coverage Ratio of the Parent Company is 1.08 times. The Parent Company has repaid its NCDs amounting to ₹ 6,000 Crore in FY 23. Without considering this repayment, the Parent Company's Debt Service Coverage Ratio will be 5.43 times. This does not have any impact on the Consolidated Financial Statements of the Group.

33. Fair value measurements of financial instrument

Critical accounting judgement

The Group applies valuation techniques to determine the fair value of financial instruments (where active market quotes are not available). This involves developing estimates and assumptions consistent with the market participants to price the instrument. The Group's assumptions are based on observable data as far as possible, otherwise on the best information available. Estimated fair values may vary from the actual prices that would be achieved in an arm's length transaction at the reporting date.

(a) Fair value measurements

(i) The following table shows the carrying amount of financial assets and financial liabilities by category:

(₹ Crore)

	Note	As at 31/03/2024			As at 31/03/2023		
		Amortised cost	Fair value through OCI	Fair value through P&L	Amortised cost	Fair value through OCI	Fair value through P&L
Financial assets							
Investments in equity instruments #							
Quoted equity instruments	5A	-	10,562	-	-	7,729	-
Unquoted equity instruments	5A	-	134	-	-	129	-
Investments in preference shares	5A	-	-	10	-	-	24
Investments in debt instruments	5A, 5B						
Mutual funds		-	-	1,581	-	-	5,625
Bonds & debentures		-	1,002	400	-	-	130
Government securities		-	309	-	-	303	-
Commercial paper		-	-	199	-	-	97
Certificate of Deposits		-	-	1,137	-	-	-
Cash & cash equivalents	5G						
Cash & bank		11,810	-	-	12,840	-	-
Liquid mutual funds		-	-	6	-	-	-
Bank balances other than cash & cash equivalents	5H	2,621	-	-	2,243	-	-
Trade receivables *	5F	9,654	6,659	91	9,007	6,816	391
Loans	5C	39	-	-	55	-	-
Derivatives	5D	-	298	424	-	-	1,891
Other financial assets	5E	5,629	-	-	4,806	-	-
Total financial assets		**29,753**	**18,964**	**3,848**	**28,951**	**14,977**	**8,158**

Notes

forming part of the Consolidated Financial Statements

(₹ Crore)

	Note	As at 31/03/2024			As at 31/03/2023		
		Amortised cost	Fair value through OCI	Fair value through P&L	Amortised cost	Fair value through OCI	Fair value through P&L
Financial liabilities							
Borrowings							
Borrowings, non-current	12A	47,395	-	-	51,434	-	-
Borrowings, current	12B	7,106	-	-	6,901	-	-
Lease liabilities	3D	1,855	-	-	1,956	-	-
Supplier's credit	12D	1,308	3,167		1,035	4,600	-
Trade payables	12E	29,992	-	4,452	32,103	-	3,757
Derivatives	5D	-	675	723	-	-	1,313
Other financial liabilities	12C	3,904	-	-	3,120	-	-
Total financial liabilities		**91,560**	**3,842**	**5,175**	**96,549**	**4,600**	**5,070**

* As of March 31, 2024, The Group has determined that ₹ 6,670 crores of outstanding trade receivables should be classified as amortized cost rather than at fair value through other comprehensive income ("FVOCI"). It was determined that ₹ 6,670 crores of trade receivables had been inadvertently classified at FVOCI instead of amortized cost as of March 31, 2023. This did not materially impact the Consolidated Balance Sheet, Consolidated Statement of Profit and Loss, Consolidated Statement of Changes in Equity, or Consolidated Statement of Cash Flows for the year ended March 31, 2023. It was mainly related to a disclosure within the footnotes to the FFC consolidated financial statements and did not materially impact the overall financial position or operations of the Group, since all trade receivables have a short maturity period ("i.e., less than one year").

The Group had acquired certain equity instruments for the purpose of holding for a longer duration and not for the purpose of selling in near term for short term profit. Such instruments have been categorized as FVTOCI.

(ii) The following table shows fair value for financial assets and financial liabilities measured at amortised cost:

(₹ Crore)

	Note	As at 31/03/2024		As at 31/03/2023	
		Carrying value	Fair value	Carrying value	Fair value
Financial assets					
Loans, non-current	5C	7	5	47	45
Other financial assets, non-current	5E	3,737	3,648	3,124	3,114
		3,744	**3,653**	**3,171**	**3,159**

(₹ Crore)

	Note	As at 31/03/2024		As at 31/03/2023	
		Carrying value	Fair value	Carrying value	Fair value
Financial liabilities					
Non convertible debentures (NCDs)	12A	-	-	699	696
Borrowings, non-current #	12A	47,595	45,938	52,082	49,929
Other financial liabilities, non-current	12C	314	314	207	207
		47,909	**46,252**	**52,988**	**50,832**

Fair values for current financial assets and financial liabilities have not been disclosed because their carrying amount are a reasonable approximation of their fair values.

Carrying amount includes current portion of debt shown under short term borrowings (Refer note 12B).

Fair value of borrowings does not include interest accrued but not due.

(b) Fair Value Hierarchy

The following table shows the details of financial assets and financial liabilities, including their levels in the fair value hierarchy:

(i) Financial assets and liabilities measured at fair value - recurring fair value measurements

(₹ Crore)

	Note	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial assets							
Investments in equity instruments							
Quoted equity instruments	5A	10,562	-	-	7,729	-	-
Unquoted equity instruments	5A	-	-	134	-	-	129
Investments in preference shares	5A	-	10	-	-	24	-
Investments in debt instruments	5A, 5B						
Mutual funds		1,563	18	-	5,597	28	-
Bonds & debentures		1,052	225	125	-	100	30
Government securities		49	93	167	202	53	48
Commercial paper		-	-	199	-	-	97
Certificate of Deposits		-	1,137	-	-	-	-
Cash & cash equivalents	5G						
Liquid mutual funds		6	-	-	-	-	-
Trade receivables	5F	-	6,750	-	-	7,207	-
Derivatives	5D	-	722	-	-	1,891	-
Other financial assets	5E	-	-	-	-	-	-
Total financial assets		**13,232**	**8,955**	**625**	**13,528**	**9,303**	**304**

(₹ Crore)

	Note	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial liabilities							
Derivatives	5D	-	1,398	-	-	1,313	-
Supplier's credit	12D	-	3,167	-	-	4,600	-
Trade payables	12E	-	4,452	-	-	3,757	-
Total financial liabilities		**-**	**9,017**	**-**	**-**	**9,670**	**-**

Notes

forming part of the Consolidated Financial Statements

(ii) Fair value disclosure of financial assets and financial liabilities measured at amortised cost:

(₹ Crore)

	Note	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial assets							
Loans and other financial assets	5C, 5E	-	361	3,292	-	353	2,806

(₹ Crore)

	Note	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial liabilities							
Non convertible debentures (NCDs)	5A	-	-	-	-	696	-
Borrowings, non-current #	12B	-	45,936	2	-	49,926	3
Other financial liabilities, non - current	12C	-	314	-	-	207	-

Level 1: Hierarchy includes financial instruments valued using quoted market prices. Listed equity instruments and traded debt instruments which are traded in the stock exchanges are valued using the closing price at the reporting date. Mutual funds are valued using the closing NAV.

Level 2: Hierarchy includes financial instruments that are not traded in active market. This includes over the counter (OTC) derivatives, close ended mutual funds and debt instruments valued including quoted using observable market data such as yield etc. of similar instruments traded in active market. All derivatives are reported at discounted values hence are included in Level 2. Borrowings have been fair valued using credit adjusted interest rate prevailing on the reporting date. Trade Receivables and Payables that are realigned based on forward LME/LBMA price movements have been included in Level 2 hierarchy.

Level 3: If one or more significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity instruments and certain debt instruments including quoted which are valued using assumptions from market participants.

(iii) Disclosure of changes in level 3 items for the period ended 31/03/2024 and 31/03/2023 respectively:

(₹ Crore)

	Unquoted Equity Instruments	Unquoted Debt Instruments	Contingent Consideration	Total
As at 31/03/2022	48	152	380	580
Acquisitions	65	96	-	161
Sale	-	(17)	-	(17)
Convert to notes Receivable	-	-	(380)	(380)
Gain/(losses) recognised in Profit or loss	-	(3)	-	(3)
Gain/(losses) recognised in OCI	14	-	-	14
Mark down to fair value	-	-	-	-
Exchange difference	2	-	-	2
Transfer from Level 1 & 2	-	48	-	48
Transfer to Level 1 & 2	-	(101)	-	(101)
As at 31/03/2023	129	175	-	304

(₹ Crore)

	Unquoted Equity Instruments	Unquoted Debt Instruments	Contingent Consideration	Total
As at 31/03/2023	129	175	-	304
Acquisitions	-	286	-	286
Sale	-	(100)	-	(100)
Convert to notes receivable	-	-	-	-
Gain/(losses) recognised in Profit or loss	-	8	-	8
Gain/(losses) recognised in OCI	13	4	-	17
Mark down to fair value	(8)	-	-	(8)
Exchange difference	-	-	-	-
Transfer from Level 1 & 2	-	167	-	167
Transfer to Level 1 & 2	-	(49)	-	(49)
As at 31/03/2024	134	491	-	625
Unrealised Gain/ (loss) recognised in the consolidated statement of profit and loss relating to assets and liabilities held at the end of reporting period:				
As at 31/03/2024	-	11	-	11
As at 31/03/2023	-	4	-	4

Transfers from level 1 and 2 to level 3 and out of level 3 for unquoted debt instruments is based on unavailability/availability of market observable inputs as on the reporting date. The Group's policy is to recognise transfers into and transfers out of fair value hierarchy levels as at the end of the reporting period.

Valuation process

Some of the Group's assets and liabilities are measured at fair value for financial reporting purposes. The Management of the Group has set up a team in the finance department which performs the valuation of financial assets and liabilities.

In estimating the fair value of an asset or a liability, the Group uses market-observable data to the extent it is available. Where Level 1 inputs are not available, the Group engages third party qualified valuers to perform the valuation. The team works closely with qualified external valuers to establish the appropriate valuation techniques and inputs to the model. The team reports findings to the Management of the Group to explain the cause of fluctuations in the fair value of the assets and liabilities.

Valuation techniques used for valuation of instruments that are categorised as level 3.

For valuation of investments in equity shares that are unquoted, peer comparison has been performed, wherever available. Valuation has been primarily done by considering the net worth of the company and price to book multiple to arrive at the fair value. In cases where the income approach was feasible, valuation has been arrived using the earnings capitalisation method or discounted cashflow method. For inputs that are not observable for these instruments, certain assumptions are made based on available information. The most significant of these assumptions are the discount rate and credit spreads used in the valuation process.

For valuation of investments in debt securities categorised as level 3, market polls which represent indicative yields are used as assumptions by market participants when pricing the asset.

There were no significant inter-relationships between unobservable inputs that materially affect fair values.

Notes

forming part of the Consolidated Financial Statements

34. Financial risk management

Refer Note 5D for accounting policies of Derivative and hedge accounting.

The Group's activities exposes it to various risks such as market risk, liquidity risk and credit risk. This section explains the risks which the Group is exposed to and how it manages the risks.

(a) Market risk

(i) Commodity price risk

Hindalco's India Operations consists of two businesses – Copper and Aluminium. The Copper Business works under a "Custom Smelting" model wherein the focus is to improve the processing margin. The timing mismatch risk between the input and output price, which is linked to the same international pricing benchmark, is eliminated through use of derivatives. This off-set hedge model (through use of derivatives) is used to manage the timing mismatch risk for both commodities (Copper and Precious Metals) and Currency Risk (primarily, USD/INR). The Copper Business also has a portion of View Based exposure for both Commodity and Currency, beyond the above timing mismatch risk. Lower Copper Prices, Stronger USD/INR exchange rate and Higher "Other Input" Prices (eg. Coal, furnace oil, natural gas etc) are the major price risks that adversely impact the business. Here, the Group may use derivative instruments, wherever available, to manage these pricing risks. A variety of factors, including the risk appetite of the business and price view, are considered while taking hedging decisions. Such view based hedges are usually done for the next 1-12 quarters.

The Aluminium Business is a vertically integrated business model wherein the input and output pricing risks are independent of each other, i.e. – are on different pricing benchmarks, if any. Here, the Group may use derivative instruments, wherever available, to manage its pricing risks for both input and output products. Lower Aluminium Prices, weaker USD/INR exchange rate and Higher Input Prices (e.g. Alumina, Furnace Oil, Coal, Electricity, Natural Gas, Diesel Fuel) are the major price risks that adversely impact the business. Hedging decisions are based on a variety of factors, including the risk appetite of the business and price View. Such hedge decisions are usually done for the next 1-12 quarters.

Embedded derivatives (ED)

Copper concentrate is purchased on future pricing model based on month's average LME (in case of copper) / LBMA (in case of gold and silver). Since, the value of the concentrate changes in response to change in commodity pricing indices, embedded derivatives (ED) are identified and segregated in the contract. The ED so segregated, is treated like a commodity derivative and it qualifies for hedge accounting. These derivatives are put into a Fair Value hedge relationship with respect to inventory.

Novelis business model is conducted under a conversion model which allows it to pass through increases or decreases in the price of aluminium to its customers. Derivative instruments are used to preserve conversion margins and manage timing differences associated with metal price lag related to base aluminium price. Novelis also uses several sources of energy such as natural gas, electricity, fuel oil and transport oil in manufacturing and delivery of its products.

1. The table below summarises the gain/(loss) impact on account of increase in the commodity prices on the Group's equity and profit for the period.

(₹ Crore)

Commodity risk	Price index	Increase/ Decrease in rate/price	Year ended 31/03/2024		Year ended 31/03/2023	
			Gain/(Loss) in consolidated statement of profit & loss post tax	Gain/(Loss) in other components of equity post tax	Gain/(Loss) in consolidated statement of profit & loss post tax	Gain/(Loss) in other components of equity post tax
Forwards						
Aluminium	LME	10%	(144)	(1,083)	(219)	(1,146)
Copper	LME	10%	(650)	-	(682)	-
Gold	LBMA/ MCX	10%	(184)	-	(159)	-
Silver	LBMA	10%	(11)	-	-	-
Zinc	LME	10%	3	-	3	-
Options						
Aluminium	LME	10%	(99)	-	-	-
Aluminium	LME	-10%	(7)	108	-	-
Swaps						
Natural Gas	ICE Brent/ Henry NYMEX	10%	1	10	1	12
Furnace Oil	AG Platts	10%	-	-	-	10
Diesel Fuel	EIA Flat Tax On-Highway	10%	11	16	5	3
Local Market Premium	Midwest Premium/ European Duty Paid	10%	(45)	-	-	-

Decrease in prices in all the above mentioned commodities, other than Aluminium Options, by 10% will have an equal and opposite impact in the financial statements. Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the outstanding derivative position as on the reporting date by assuming all other factors constant.

(ii) Foreign currency risk

Exchange rate movements, particularly the United States Dollar (USD) and Euro (EUR) against Indian Rupee (INR) and Euro, the Swiss franc, the Brazilian real and the Korean won against the U.S. dollar have an impact on our operating results.

In India, in addition to the foreign exchange inflow from exports, the commodity prices in the domestic market are derived based on the landed cost of imports where the LME prices and USD/INR exchange rate are the main factors. In case of conversion business, the objective is to match the exchange rate of outflows and related inflows through derivative financial instruments. With respect to the Aluminium business where costs are predominantly in INR, the strengthening of INR against USD adversely affects the profitability of the business and benefits when INR depreciates against USD. The Group enters into various foreign exchange contracts to protect profitability. The Group also enters into various foreign exchange contracts to mitigate the risk arising out of foreign currency exchange rate movement in foreign currency contracts executed with foreign suppliers to procure capital items for its project activities.

Notes

forming part of the Consolidated Financial Statements

In Europe, where the Group has predominantly local currency selling prices and operating costs, it benefits as the Euro strengthens, but is adversely affected as the Euro weakens. For Swiss operations, where operating costs are incurred primarily in the Swiss franc and a large portion of revenues are denominated in the Euro, the Group benefits as the franc weakens but is adversely affected as the franc strengthens. In South Korea, for local currency operating costs and U.S. dollar denominated selling prices for exports, the Group benefits as the Korean won weakens but are adversely affected as the Korean won strengthens. In Brazil, where the Group has predominately U.S. dollar selling prices and local currency manufacturing costs, it benefits as the Brazilian real weakens, but is adversely affected as the Brazilian real strengthens.

1. **The Group's net exposure to foreign currency risk at the end of the financial year 2023-2024 are expressed in ₹ is given below:**

Unhedged foreign currency (payable) / receivable

(₹ Crore)

Particulars	USD	EUR	GBP	JPY	BRL	SEK	CHF	CAD	CNY	NOK
Financial Assets										
Trade receivables	4,971	652	7	17	2,046	-	-	-	842	-
Other financial assets	527	20	26	-	4,826	-	44	-	-	-
Financial Liabilities										
Trade Payables	(7,649)	(1,372)	(300)	(44)	(3,320)	-	(5)	(25)	(35)	-
Other financial liabilities	(148)	(110)	(56)	-	(2,342)	-	-	(121)	-	-
Borrowings*	(513)	(946)	(421)	-	-	-	-	-	-	-
Supplier's Credit*	(4,528)	-	-	-	-	-	-	-	-	-
Less: Net exposure hedged	2497	(1,415)	(687)	(41)	1,211	-	22	(120)	806	-
Unhedged exposure	**(9,837)**	**(341)**	**(57)**	**14**	**-**	**-**	**17**	**(26)**	**1**	**-**

* Includes interest accrued but not due

As on March 31, 2024, the Group has USD, EUR, GBP and JPY foreign currency payables of ₹ 10,214 Crore (March 31, 2023 ₹ 11,563 Crore) which will be offseted by an equal amount of foreign currency receivables in the next financial year. These assets and liabilities that are naturally hedged against future transactions are not excluded for the purpose of above disclosure.

2. **The Group's net exposure to foreign currency risk at the end of the financial year 2022-2023 are expressed in ₹ is given below :**

Unhedged foreign currency (payable) / receivable

(₹ Crore)

Particulars	USD	EUR	GBP	JPY	BRL	SEK	CHF	CAD	CNY	NOK
Financial Assets										
Trade receivables	5,254	954	13	-	842	-	-	-	-	-
Other financial assets	180	1,053	10	-	5,159	-	15	2	-	-
Financial Liabilities										
Trade Payables	(8,919)	(1,619)	(103)	(77)	(2,920)	(1)	(6)	(25)	-	-
Other financial liabilities	(272)	(110)	(351)	-	(2,123)	-	(1)	(119)	-	(1)
Borrowings*	(5,706)	-	-	-	-	-	-	-	-	-
Less: Net exposure hedged	1,927	295	(265)	(69)	958	-	(12)	(119)	-	-
Unhedged exposure	**(11,390)**	**(17)**	**(166)**	**(8)**	**-**	**(1)**	**-**	**(23)**	**-**	**(1)**

* Includes interest accrued but not due

As on March 31, 2023, the Group has USD, EUR and GBP foreign currency payables of ₹ 11,563 Crore (March 31, 2022 ₹ 10,110 Crore) which will be offseted by an equal amount of foreign currency receivables in the next financial year. These assets and liabilities that are naturally hedged against future transactions are not excluded for the purpose of above disclosure.

3. The table below summarises the gain/(loss) impact on account of tha increase in the exchange rates on the Group's equity and profit for the period on total foreign currency receivable and payable as at balance sheet date:

(₹ Crore)

Currency pair	Increase in rate/ price	Year ended 31/03/2024		Year ended 31/03/2023	
		Gain/(Loss) in consolidated statement ofprofit & loss post tax	Gain/(Loss) in other components of equity post tax	Gain/(Loss) in consolidated statement ofprofit & loss post tax	Gain/(Loss) in other components of equity post tax
USD_INR	10%	(701)	(1,161)	(116)	(1,271)
EUR_USD	10%	(221)	(409)	140	211
BRL_USD	10%	(21)	(69)	(25)	(45)
KRW_USD	10%	(73)	(172)	123	209
CAD_USD	10%	(10)	(23)	(13)	(18)
GBP_USD	10%	(27)	-	(377)	-
CHF_USD	10%	(5)	(6)	1	1
CNY_USD	10%	70	-	14	-
GBP_CHF	10%	-	-	(6)	-
EUR_CHF	10%	(268)	(35)	290	53
EUR_GBP	10%	166	-	210	-
EUR_CNY	10%	(1)	-	9	-
EUR_KRW	10%	(2)	-	3	-
CNY_KRW	10%	(91)	-	-	-
EUR_INR	10%	(22)	-	3	-
JPY_INR	10%	1	-	(1)	-
GBP_INR	10%	(4)	-	(11)	-
CAD_INR	10%	(1)	-	(1)	-

Decrease in prices by 10% will have an equal and opposite impact in the financial statements.Sensitivity analysis has been computed by stress testing the market price of the underlying currency index on the outstanding derivative position and unhedged exposure as on the reporting date by assuming all other factors constant.

(iii) Interest rate risk

1. The Group is exposed to interest rate risk on financial liabilities such as borrowings, both short-term and long-term. It maintains a balance of fixed and floating interest rate borrowings and the proportion is determined by current market interest rates, projected debt servicing capability and view on future interest rates. Such interest rate risk is actively evaluated and interest rate swap is taken whenever considered necessary.

   The Group is also exposed to interest rate risk on its financial assets that include fixed deposits, bonds, debentures, commercial paper, mutual funds and liquid investments comprising mainly mutual funds (which are part of cash and cash equivalents). Since, all these are generally for short durations, the Group believes it has manageable and limited interest rate risk.

Notes

forming part of the Consolidated Financial Statements

The table below summarises the (gain)/loss impact on account of increase in the benchmark interest rates on the Group's equity and profit for the period.

(₹ Crore)

Interest Rate Risk	Increase in rate/price	Year ended 31/03/2024		Year ended 31/03/2023	
		Gain/(Loss) in consolidated statement of profit & loss post tax	Gain/(Loss) in other components of equity post tax	Gain/(Loss) in consolidated statement of profit & loss post tax	Gain/(Loss) in other components of equity post tax
Interest rate on floating rate borrowings	100 bps	(226)	-	(191)	-

Decrease in rates by 100 bps will have equal and opposite impact in financial statements.

Sensitivity analysis has been computed by stress testing the interest rates applicable (i.e. USD 6M SOFR, SBI 3M MCLR, Repo Rate and 3M T-bill etc.) on the amount of borrowings during the year by assuming all other factors constant.

2. Interbank offered rates (IBOR) reform

The following table contains details of all financial instruments that are referenced to IBOR which have not yet transitioned to an alternative interest rate benchmark (ARR):

Non-derivative assets and liabilities	IBOR exposure	Carrying value (₹ Crore)	Alternative interest rate benchmark
Long term foreign currency borrowings	USD 1M-6M IBOR	10,087	Secured overnight funding rate (SOFR)
Short term foreign currency borrowings	USD 1M IBOR	4,270	

Derivatives

The Group has interest rate hedges outstanding as on the reporting date, accordingly IBOR related impact on hedge accounting including discounting of other derivatives is not expected to be material.

3. The following table presents the estimated potential change in the fair values of the interest rate derivative financial instruments, given a 10% change in their respective indexes:

(₹ Crore)

Types of derivatives	Change in rate/price	As at 31/03/2024		As at 31/03/2023	
		Gain/(Loss) in consolidated statement of profit & loss post tax	Gain/(Loss) in other components of equity post tax	Gain/(Loss) in consolidated statement of profit & loss post tax	Gain/(Loss) in other components of equity post tax
3M Term SOFR	10%		(34)	-	-

Decrease in prices by 10% will have an equal and opposite impact in the financial statements.

Gain/(loss) is sensitive to interest income/expense from variable rate debt as a result of changes in interest rates.

(iv) Equity securities price risk

The Group's exposure to equity securities price risk arises from movement in the market price of related securities classified either as fair value through OCI or as fair value through profit and loss. The Group manages the price risk through diversified portfolio.

The table below summarises the gain/(loss) impact on account of the increase in the equity share prices on the Group's equity and profit for the period.

(₹ Crore)

Other Price Risk	Increase in rate/price	Year ended 31/03/2024		Year ended 31/03/2023	
		Gain/(Loss) in consolidated statement ofprofit & loss post tax	Gain/(Loss) in other components of equity post tax	Gain/(Loss) in consolidated statement ofprofit & loss post tax	Gain/(Loss) in other components of equity post tax
Investment in equity securities	10%	-	934	-	683

Decrease in prices by 10% will have an equal and opposite impact in the financial statements.Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the investment portfolio as on the reporting date.

(b) Liquidity risk

The Group determines its liquidity requirements in the short, medium and long term. This is done by drawing up cash forecast for short and medium term requirements and strategic financing plans for long term needs.

The Group manages its liquidity risk in a manner so as to meet its normal financial obligations without any significant delay or stress. Such risk is managed through ensuring operational cash flow while at the same time maintaining adequate cash and cash equivalent position. The management has arranged for diversified funding sources and adopted a policy of managing assets with liquidity in mind and monitoring future cash flows and liquidity on a regular basis. Surplus funds not immediately required are invested in certain investments (including mutual fund) which provide flexibility to liquidate at short notice and are included in current investments and cash and cash equivalents. Besides, it generally has certain undrawn credit facilities which can be accessed as and when required; such credit facilities are reviewed periodically.

The Group has developed appropriate internal control systems and contingency plans for managing liquidity risk. This incorporates an assessment of expected cash flows and the availability of alternative sources for additional funding, if required.

(i) Financing arrangement

The Group had access to the following undrawn borrowing facilities at the end of the reporting period:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Bank overdraft and other facilities	10,043	13,285

Undrawn limit has been calculated based on the available drawing power and sanctioned amount at each reporting date.

Notes

forming part of the Consolidated Financial Statements

(ii) Maturity analysis

The table below shows the Group's financial liabilities into relevant maturity groupings based on their contractual maturities for all non-derivative financial liabilities and net settled derivative financial instruments. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

(₹ Crore)

1	Contractual maturities of financial liabilities as at March 31, 2024	Note No	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 Years	Total	Carrying Value
	Non derivatives							
	Borrowings #	12A,12B	9,103	863	26,731	27,519	64,216	54,501
	Lease liabilities*	3D	510	369	598	1,139	2,616	1,855
	Supplier's credit	12D	4,529	-	-	-	4,529	4,475
	Trade payables	12E	34,444	-	-	-	34,444	34,444
	Other financial liabilities	12C	3,248	114	7	191	3,560	3,904
	Total non Derivative liabilities		**51,834**	**1,346**	**27,336**	**28,849**	**109,365**	**99,179**
	Derivatives (net settled)	5D	1,356	26	16	-	1,398	1,398
	Total derivative liabilities		**1,356**	**26**	**16**	**-**	**1,398**	**1,398**

(₹ Crore)

2	Contractual maturities of financial liabilities as at March 31, 2024	Note No	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 Years	Total	Carrying Value
	Non derivatives							
	Borrowings #	12A,12B	9,519	9,751	20,489	28,131	67,890	58,335
	Lease liabilities*	3D	507	331	576	1,244	2,658	1,956
	Supplier's credit	12D	5,701	-	-	-	5,701	5,635
	Trade payables	12E	35,860	-	-	-	35,860	35,860
	Other financial liabilities	12C	2,598	44	16	146	2,804	3,120
	Total non derivative liabilities		**54,185**	**10,126**	**21,081**	**29,521**	**114,913**	**104,906**
	Derivatives (net settled)	5D	1,268	59	1	-	1,328	1,313
	Total Derivative liabilities		**1,268**	**59**	**1**	**-**	**1,328**	**1,313**

Includes principal and interest payments, short term borrowings, current portion of debt and excludes unamortised fees.

*Total cash outflow for leases is ₹ 974 Crore (31/03/2023: is ₹ 1,039 Crore) which includes ROU lease payments, short term leases, variable lease payments and leases of low value assets - (Refer Note 12B(i) and 24(a)).

(c) Credit Risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligation.

Credit risk arises from cash and cash equivalents, contractual cash flows of debt investments, favourable derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers including outstanding receivables.

Credit risk is managed on a group basis. The Group has adopted a policy of dealing only with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating the risk of financial loss from defaults. The Group invests only in those instruments issued by high rated banks/ institutions and government agencies. The Group assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. The Group's investments in debt instruments and certain loans are considered as low credit risk investments. The credit ratings of the investments are monitored for credit deterioration.

For some trade receivables, the Group obtains security in the form of guarantees, deed of undertaking or letters of credit which can be called upon if the counterparty is in default under the terms of the agreement.

The Group periodically monitors the recoverability and credit risks of its other financial assets including security deposits and other receivables. The Group evaluates 12 months expected credit losses for all the financial assets for which credit risk has not increased. In case credit risk has increased significantly, the Group considers life time expected credit losses for the purpose of impairment provisioning.

The Group has used a practical expedient by computing the expected credit loss allowance for trade receivables based on a provision matrix. The provision matrix takes into account historical credit loss experience and adjusted for forward-looking information.

Movement in the allowance for doubtful debts:

(₹ Crore)

Particulars	As at	
	31/03/2024	31/03/2023
Balance at the beginning of the year	(93)	(84)
Impairment losses (recognised)/ reversed on receivables	(24)	(10)
Amounts written off during the period as uncollectible	-	1
Foreign exchange translation gains and losses	18	-
Balance at the end of the year	(99)	(93)

For further details, refer note 5F, trade receivables.

Financial assets at FVTPL and at FVTOCI: The Group is also exposed to credit risks in relation to financial assets that are measured at FVTPL or at FVTOCI. The maximum exposure at the end of the reporting period is the carrying amount of these assets.

Notes

forming part of the Consolidated Financial Statements

35. Offsetting Financial Liabilities and Financial Assets

Financial assets and liabilities are offset and the net amount is reported in the consolidated balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Group or the counterparty.

Financial instruments are subject to offsetting, enforceable master netting arrangement and similar arrangements.

(₹ Crore)

As at 31/03/2024	Effects on balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount presented in the balance sheet	Amounts subject to master netting arrangements	Financial instrument collateral	Net amount
Financial Assets						
Derivatives	912	(191)	721	(264)	-	457
Financial Liabilities						
Derivatives	1,589	(191)	1,398	(264)	(387)	747

(₹ Crore)

As at 31/03/2023	Effects on balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount presented in the balance sheet	Amounts subject to master netting arrangements	Financial instrument collateral	Net amount
Financial Assets						
Derivatives	2,009	(118)	1,891	(592)	-	1,299
Financial Liabilities						
Derivatives	1,431	(118)	1,313	(592)	(362)	359

36. Relationship with struck off companies

Disclosure related to relationship of the Group with a Company which is struck off under Section 248 of the Companies Act, 2013 or Section 530 of Companies Act, 1956:

(₹ Crore)

		Name of struck off company	Nature of transactions with struck-off Company	Balance outstanding as at 31/03/2024	Balance outstanding as at 31/03/2023	Relationship with the Struck off company
a)	**Receivables**					
	1	Daga Nylomet Private Limited	Sale of Goods and Services	1	1	Not a related party
	2	Gapscib Trading P. Ltd	Sale of Goods and Services	2	2	Not a related party
	3	Krs And Sons Construction Private Limited	Sale of Goods and Services	-	-	Not a related party
	4	Maheshwary Metal & Alloys Pvt Ltd	Sale of Goods and Services	-	-	Not a related party
	5	Nilgiris Chemical Stoneware Co (P) Ltd.	Sale of Goods and Services	-	-	Not a related party
b)	**Payables**					
	1	D. Wren Industries Pvt. Ltd.	Purchase of Goods and Services	-	-	Not a related party
	2	Knop Trading Co.Pvt.Ltd.	Purchase of Goods and Services	-	-	Not a related party
	3	Multitech System Industrial Automation Pvt Ltd	Purchase of Goods and Services	-	-	Not a related party
	4	Nuwave Technology Private Limited	Purchase of Goods and Services	-	-	Not a related party
	5	Singhal Bricks Private Limited	Purchase of Goods and Services	-	-	Not a related party
	6	Vikadis Consulting Engineering Private Limited	Purchase of Goods and Services	-	-	Not a related party
	7	Xtend Apt Solutions Private Limited.	Purchase of Goods and Services	-	-	Not a related party
	8	Boc India Limited	Deposit Refundable	-	-	Not a related party
	9	Namruth Construction & Earth Movers Pvt. Ltd.	Purchase of Goods and Services	-	-	Not a related party
	10	Nilima Associates Private Limited	Purchase of Goods and Services	-	-	Not a related party
	11	CRN Infrastructures Private Limited	Purchase of Goods and Services	-	-	Not a related party

Notes

forming part of the Consolidated Financial Statements

37. Additional regulatory information

(i) No proceedings have been initiated on or are pending against the Group for holding benami property under the Benami Transactions (Prohibition) Act, 1988 (45 of 1988) and Rules made thereunder.

(ii) None of the entities in the Group have been declared wilful defaulter by any bank or financial institution or government or any government authority.

(iii) The Group has complied with the number of layers prescribed under the Companies Act, 2013.

(iv) There is no undisclosed income under the tax assessments under the Income Tax Act, 1961 for the year ended March 31, 2024 and March 31, 2023 which needs to be recorded in the books of account of any of the entities consolidated in the Group.

(v) The Group has not traded or invested in crypto currency or virtual currency during the current or previous year.

(vi) Utilisation of borrowed funds and share premium

The Group has not advanced or loaned or invested funds to any other person(s) or entity(ies), including foreign entities (intermediaries) with the understanding that the Intermediary shall:

a. directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the group (ultimate beneficiaries) or

b. provide any guarantee, security or the like to or on behalf of the ultimate beneficiaries

(vii) The Group has not received any fund from any person(s) or entity(ies), including foreign entities (Funding Party) with the understanding (whether recorded in writing or otherwise) that the Group shall:

a. directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the funding party (ultimate beneficiaries) or

b. provide any guarantee, security or the like on behalf of the ultimate beneficiaries

(viii) Borrowings obtained by the Group from banks and financial institutions have been applied for the purposes for which such loans were taken.

38. Subsequent events

The Management has evaluated all the activities of the Group till May 24, 2024 and below one subsequent non adjusting event has been noted:

Novelis Inc., a fully owned subsidiary of the Company on May 13, 2024 has filed the registration statement in Form F-1 with the Securities and Exchange Commission (the "SEC") relating to the proposed Initial Public Offering of its common shares. Novelis Inc. intends to list its common shares on the New York Stock Exchange ("NYSE"). The number of shares to be offered and the price range for the proposed offering have not yet been determined. The Group expects to complete the public offering after the SEC completes its review process, subject to market and other conditions. There can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering.

39. During the financial year ended 31/03/2024, the Group has reclassified the following comparatives which are primarily to conform to the current years classification. This reclassifications do not have material impact on the Consolidated Financial Statements.

(₹ Crore)

	Note	Note description	Previously reported amount	Revised amount	Change in amount
A.	**Consolidated Balance Sheet**				
	5E	Other Current Financial Assets	1,397	1,682	285
	5H	Bank Balances other than Cash and Cash Equivalents	2,528	2,243	(285)
	5E	Other Non Current Financial Assets	3,069	3,124	55
	7	Other Non current assets	4,288	4,233	(55)
	16	Other Non-current liabilities	1,814	1,813	(1)
	6B	Current tax liabilities (net)	2,187	2,099	(88)
	16	Other current liabilities	1,693	1,782	89
			16,976	16,976	-

Above amounts have been reclassified by subsidiaries for better presentation and does not have any impact on profit or total equity of the Group.

As per our report annexed.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place: Mumbai
Dated: May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN-00026078

Standalone Financial Statements Index

Particulars	Note No.	Page No.
Independent Auditor's Report		**572**
Standalone Balance Sheet		**590**
Standalone Statement of Profit and Loss		**592**
Standalone Statement of Changes in Equity		**594**
Standalone Statement of Cash Flows		**596**
Standalone Notes to the Financial Statements		**598**
Company Information	1	598
Basis of Preparation and Accounting Policy Information	2	599
Property, Plant and Equipment	3A	601
Capital Work-in-Progress	3B	603
Right of Use Assets	3C	605
Lease Liabilities	3D	606
Investment Properties	3E	607
Other Intangible Assets and Intangible Assets under Development	3F	609
Depreciation and Amortization Expenses	3G	612
Impairment Loss/ (Reversal) on Non- Current Assets (Net)	3H	613
Title deeds of the Immovable Properties pending for transfer	3I	614
Goodwill	4	616
Financial Assets	5	616
Investment in Subsidiaries	5A	619
Investment in Associates and Joint Ventures	5B	620
Other Investments, Non-Current	5C	621
Other Investments, Current	5D	622
Loans	5E	622
Derivatives and Hedge Accounting	5F	623
Other Financial Assets	5G	632
Trade Receivables	5H	632
Cash and Cash Equivalents	5I	634
Bank Balances other than Cash and Cash Equivalents	5J	634
Income Taxes	6	634
Tax Expenses	6A	636
Income Tax Assets and Liabilities with Tax Authorities	6B	637
Deferred tax Assets and Liabilities (Net)	6C	638
Other Non-Current and Current Assets	7	640
Inventories	8A	641
Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade	8B	642
Non-Current Assets classified as Held for Sale	9	643
Equity Share Capital	10	644

Particulars	Note No.	Page No.
Other Equity	11	646
Financial Liabilities	12	649
Borrowings, Non-Current	12A	649
Borrowings, Current	12B	651
Other Financial Liabilities	12C	653
Supplier's Credit	12D	653
Trade Payables	12E	654
Provisions	13	655
Employee Benefits Expense	14A	658
Employee Benefit Obligations	14B	658
Contract Liabilities	15	676
Other Non-Current and Current Liabilities	16	676
Revenue from Operations	17	677
Other Income	18	679
Cost of Materials Consumed	19	680
Purchases of Stock-in-Trade	20	680
Power and Fuel	21	681
Finance Cost	22	681
Impairment Loss/ (Reversal) on Financial Assets (Net)	23	682
Other Expenses	24	682
Exceptional Income/ (Expenses) (Net)	25	683
Other Comprehensive Income/ (Loss)	26	684
Earnings per Share (EPS)	27	685
Government Grants	28	686
Segment Information	29	687
Related Party Disclosures	30	687
Contingent Liabilities and Commitments	31	695
Capital Management	32	698
Fair Value Measurement of Financial Instruments	33	698
Financial Risk Management	34	705
Offsetting Financial Liabilities and Financial Assets	35	712
Relationship with struck off-companies	36	713
Financials Ratio Analysis	37	714
Other Regulatory Information	38	715
Subsequent events	39	717

Independent Auditor's Report

To the Members of Hindalco Industries Limited

Report on the Audit of the Standalone Financial Statements

Opinion

1. We have audited the accompanying Standalone Financial Statements of Hindalco Industries Limited ("the Company"), which comprise the Standalone Balance Sheet as at March 31, 2024, and the Standalone Statement of Profit and Loss (including Other Comprehensive Income), the Standalone Statement of Changes in Equity and the Standalone Statement of Cash Flows for the year then ended, and notes to the standalone financial statements, including material accounting policy information and other explanatory information in which are included the financial statements for its interest in joint operations and trusts (Refer note 1 to the standalone financial statements) for the year ended on that date audited by the other auditors (hereinafter referred to as "standalone financial statements").

2. In our opinion and to the best of our information and according to the explanations given to us and based on the consideration of reports of other auditors on the audited financial statements of the joint operations and trusts, the aforesaid standalone financial statements give the information required by the Companies Act, 2013 ("the Act") in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company, its joint operations and trusts, as at March 31, 2024, and total comprehensive income (comprising of profit and other comprehensive income), changes in equity and its cash flows for the year then ended.

Basis for Opinion

3. We conducted our audit in accordance with the Standards on Auditing (SAs) specified under Section 143(10) of the Act. Our responsibilities under those Standards are further described in the "Auditor's responsibilities for the audit of the standalone financial statements" section of our report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to our audit of the standalone financial statements under the provisions of the Act and the Rules thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors in terms of their reports referred to in sub-paragraph 13 and 14 of the Other Matter section below is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

4. Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the standalone financial statements of the current period. These matters were addressed in the context of our audit of the standalone financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Provisions recognised and contingencies disclosed with regards to certain legal and tax matters including uncertain tax positions Refer Notes 6, 7, 13, and 31 to the standalone financial statements. The Company operates in a complex tax jurisdiction with certain tax exemption/ deduction that may be subject to challenge and audit by the tax authorities. Further, there are open tax matters under litigation with the tax authorities. As at March 31, 2024, the Company has, recognised provisions and disclosed contingent liabilities towards various legal and tax matters, including environmental, mining, local and state levies, income tax holidays, availing of input tax credits and such other matters. This is a key audit matter, as evaluation of these matters requires management judgement and estimation, related legal advice including those leading to interpretation of laws and regulations and application of relevant judicial precedents to determine the probability of the outflow of economic resources due to associated uncertainty related to the outcome of these tax and litigation matters for recognising provisions, disclosing contingent liabilities and making related disclosures in the standalone financial statements.	Our audit procedures relating to provisions recognised and contingencies disclosed with regard to certain legal and tax matters included the following: • Understanding and evaluating the design and testing the operating effectiveness of controls over the recognition, measurement, presentation and disclosures made in the standalone financial statements in respect of these matters; • Obtaining details of legal and tax matters, inspecting the supporting documents to evaluate management's assessment of probability of outcome and the magnitude of potential loss as well as testing related to provisions and disclosures in the standalone financial statements through inquiries with the management and legal counsel; • Assessing on test basis on the underlying calculation supporting the contingent liabilities and other litigation disclosures in the standalone financial statements; • Reviewing orders and other communication from tax and regulatory authorities and management responses thereto; • Assessing the management expert's legal advice and opinion, as applicable, obtained by the Company's management to corroborate management assessment and evaluating competence and capabilities of the experts; and • Using auditor's specialist for technical assistance in evaluating certain significant and judgemental complex direct and indirect tax litigation and positions in tax returns and their possible outcome. Based on the above procedures performed, we did not identify any material exceptions in the provisions recognised and contingent liabilities disclosed in the standalone financial statements with regard to such legal and tax matters.

Independent Auditor's Report

Other Information

5. The Company's Board of Directors is responsible for the other information. The other information comprises the information included in the integrated annual report, but does not include the financial statements and our auditor's report thereon. The integrated annual report is expected to be made available to us after the date of this auditor's report.

   Our opinion on the standalone financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

   In connection with our audit of the standalone financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the standalone financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

   When we read the integrated annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate action as applicable under the relevant laws and regulations.

Responsibilities of management and those charged with governance for the standalone financial statements

6. The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Act with respect to the preparation of these standalone financial statements that give a true and fair view of the financial position, financial performance, changes in equity and cash flows of the Company in accordance with the accounting principles generally accepted in India, including the Accounting Standards specified under Section 133 of the Act. The respective Board of Directors of the Company, its joint operations and trustees of the trusts are responsible for the maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding of the assets of the Company, its joint operations and trusts and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error, which have been used for the purpose of preparation of the standalone financial statements by the Directors of the Company, as aforesaid.

7. In preparing the standalone financial statements, the respective Board of Directors of the Company, its joint operations and trustees of the trusts are responsible for assessing the ability of the Company, its joint operations and trusts to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the respective management either intends to liquidate the Company, its joint operations and trusts, or to cease operations, or has no realistic alternative but to do so. The respective Board of Directors of the Company, its joint operations and trustees of the trusts are also responsible for overseeing the financial reporting process of the Company, its joint operations and trusts.

Auditor's responsibilities for the audit of the standalone financial statements

8. Our objectives are to obtain reasonable assurance about whether the standalone financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these standalone financial statements.

9. As part of an audit in accordance with SAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

   - Identify and assess the risks of material mis-statement of the standalone financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

   - Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under Section 143(3)(i) of the Act, we are also responsible for expressing our opinion on whether the Company has adequate internal financial controls with reference to standalone financial statements in place and the operating effectiveness of such controls. (Refer paragraph 13 below).

   - Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

   - Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Company, its joint operations and trusts to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the standalone financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company, its joint operations and trusts to cease to continue as a going concern.

   - Evaluate the overall presentation, structure and content of the standalone financial statements, including the disclosures, and whether the standalone financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

   - Obtain sufficient appropriate audit evidence regarding the financial statements of the joint operations and trusts which are included in the Company to express an opinion on the standalone financial statements. We are responsible for the direction, supervision and performance of the audit of the financial statements of such entities included in the standalone financial statements of which we are the independent auditors. For the other entities included in the standalone financial statements, which have been audited by other auditors, such other auditors remain responsible for the direction, supervision and performance of the audits carried out by them. We remain solely responsible for our audit opinion.

10. We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

11. We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

12. From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the standalone financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Independent Auditor's Report

Other Matter

13. We did not audit the standalone financial statements of two joint operations included in the standalone financial statements of the Company, which constitute total assets of ₹ 13 crores and net assets of ₹ 13 crores as at March 31, 2024, total revenue of ₹ Nil, total comprehensive income (comprising of profit and other comprehensive income) of ₹ * crore and net cash in flows amounting to ₹ * crore for the year then ended. These financial statements and other financial information have been audited by other auditors whose reports have been furnished to us by the management, and our opinion on the standalone financial statements (including other information) in so far as it relates to the amounts and disclosures included in respect of these joint operations and our report in terms of sub-section (3) of section 143 of the Act including rule 11 of Companies (Audit and Auditors) Rule, 2014 of the Act including report on Other Information insofar as it relates to the aforesaid joint operations, is based solely on the reports of such other auditors. In respect of one joint operation an emphasis of matter paragraph with regard to going concern and in respect of one joint operation, a material uncertainty related to going concern has been reported by the auditors of the respective joint operations vide their audit reports which is not considered to be material to the standalone financial statements of the Company.

    **Amounts are below the rounding convention used in this report*

14. The standalone financial statements of two trusts included in the standalone financial statements of the Company, which constitute total assets of ₹ 420 crores and net assets of ₹ 40 crores as at March 31, 2024, total revenue of ₹ Nil, total comprehensive income (comprising of profit and other comprehensive income) of ₹ 6 crores and net cash in flows amounting to ₹ 10 crores for the year then ended, have been prepared in accordance with generally accepted accounting principles applicable to trusts in India. The Company's management has converted the financial statements of such trusts from the accounting principles generally accepted in India to Accounting Standards specified under Section 133 of the Act. We have audited these conversion adjustments made by the Company's management. Our opinion in so far as it relates to the balances and affairs of such trusts, including other information, is based on the report of other auditors and the conversion adjustments prepared by the management of the Company and audited by us.

    Our opinion on the standalone financial statements, and our report on other legal and regulatory requirements is not modified in respect of above matters with respect to our reliance on the work done and the reports of the other auditors.

Report on other legal and regulatory requirements

15. As required by the Companies (Auditor's Report) Order, 2020 ("the Order"), issued by the Central Government of India in terms of sub-section (11) of Section 143 of the Act, we give in the "Annexure B" a statement on the matters specified in paragraphs 3 and 4 of the Order, to the extent applicable.

16. As required by Section 143(3) of the Act, we report that:

    (a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.

    (b) In our opinion, proper books of account as required by law have been kept by the Company and its joint operation so far as it appears from our examination of those books and those performed by the auditors of joint operations whose financial statements have been audited under the Act, except that: (i) in the absence of sufficient appropriate audit evidence for five software applications of the Company, we are unable to verify whether the backup of books of account and other books and papers maintained in electronic mode has been maintained on a daily basis on servers physically located in India during the year; (ii) the back-up of two software applications, of the Company, for the books of account and other books and papers maintained in electronic mode has been kept on servers physically located in India on a daily basis, but maintained on every working day other than holidays; and (iii) the matters stated in paragraph 16(h)(vi) below on reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014 (as amended) ("the Rules").

    (c) The Standalone Balance Sheet, the Standalone Statement of Profit and Loss (including other comprehensive income), the Standalone Statement of Changes in Equity and the Standalone Statement of Cash Flows dealt with by this Report are in agreement with the relevant books of account and the financial statements received from joint operations and trusts.

    (d) In our opinion, the aforesaid standalone financial statements comply with the Accounting Standards specified under Section 133 of the Act.

    (e) On the basis of the written representations received from the directors as on April 01, 2024, taken on record by the Board of Directors and the reports of the statutory auditors of joint operations, none of the directors is disqualified as on March 31, 2024, from being appointed as a director in terms of Section 164(2) of the Act.

    (f) With respect to the maintenance of accounts and other matters connected therewith, reference is made to our remarks in paragraph 16(b) above on reporting under Section 143(3)(b) of the Act.

    (g) With respect to the adequacy of the internal financial controls with reference to financial statements of the Company and its joint operations, and the operating effectiveness of such controls, refer to our separate Report in "Annexure A".

    (h) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:

        i. The standalone financial statements disclose the impact of pending litigations on the standalone financial position of the Company, its joint operations and trusts – Refer Notes 6, 7, 13, and 31 to the standalone financial statements;

        ii. Provision has been made in the standalone financial statements, as required under the applicable law or accounting standards, for material foreseeable losses, if any, on long-term contracts, including derivative contracts, as at March 31, 2024 – Refer Notes 5F, 7 and 13 to the standalone financial statements in respect of such items as it relates to the Company, its joint operations and trusts;

        iii. Except as referred to in Note 12C to the standalone financial statements, there has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Company and its joint operations during the year.

        iv. (a) The respective managements of the Company and its joint operations whose financial statements have been audited under the Act, have represented to us and the other auditors of such joint operations, respectively that, to the best of its knowledge and belief, as disclosed in the notes to the standalone financial statements, no funds have been advanced or loaned or invested (either from borrowed funds or share premium or any other sources or kind of funds) by the Company or any of such joint operations to or in any other persons or entities, including foreign entities ("Intermediaries"), with the understanding, whether recorded in writing or otherwise, that the Intermediary shall, whether, directly or indirectly, lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Company or any of such joint operations ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries (Refer Note 38(c)(viii) to the standalone financial statements);

            (b) The respective managements of the Company and its joint operations whose financial statements have been audited under the Act, have represented to us and the other auditors of such joint operations, respectively that, to the best of its knowledge and belief, as disclosed in the notes to the standalone financial statements, no funds have been received by the Company or any of such joint operations from any persons or entities, including foreign entities ("Funding Parties"), with the understanding, whether recorded in writing or otherwise, that the Company or any of such joint operations shall, whether, directly or indirectly, lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Funding Party ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries (Refer Note 38(c)(viii) to the standalone financial statements); and

Independent Auditor's Report

(c) Based on such audit procedures that we considered reasonable and appropriate in the circumstances, performed by us and those performed by the auditors of joint operations whose financial statements have been audited under the Act, nothing has come to our or other auditors' notice that has caused us to believe that the representations under sub-clause (a) and (b) contain any material misstatement.

v. The dividend declared and paid during the year by the Company is in compliance with Section 123 of the Act. The joint operations have not declared or paid any dividend during the year.

vi. Based on our examination, which included test checks, and that performed by the respective auditors of the joint operations, the Company and its joint operations have used multiple accounting software for maintaining their books of account which have a feature of recording audit trail (edit log) facility which operated throughout the year, except that:

(a) at the application level, the audit trail feature for one accounting software operated throughout the year for certain transactions; for fourteen accounting software, the audit trail feature operated for the later part of the financial year; for six accounting software, the audit trail feature did not operate throughout the year; for one accounting software, the audit log does not record the modification; and for one accounting software, the service auditors' report on the software provided by the software service provider does not cover reporting on audit trail at the application level;

(b) at the database level, the audit trail feature for one accounting software operated only for certain transactions throughout the year; for thirteen accounting software, the audit trail feature operated for the later part of the financial year; for seven accounting software, the audit trail feature did not operate throughout the year; for one accounting software, the audit log does not record the pre-modified values; and for four accounting software, the service auditors' report on the software provided by the software service provider does not cover reporting on audit trail at the database level; and

(c) In case of one joint operation, the other auditor has observed that the said joint operation has failed to maintain books of accounts in software which has a feature of recording audit trail (edit log) facility and accordingly, the same has not operated throughout the year for all relevant transactions recorded in the software. In case of another joint operation, the other auditors have not commented on the feature of recording audit trail (edit log) for the books of accounts maintained by that joint operation.

During the course of performing our procedures and those performed by the auditors of joint operations whose financial statements have been audited under the Act, except for the aforesaid instances at the application and the database levels, where the question of our commenting on whether the audit trail has been tampered with does not arise, we did not notice any instance of the audit trail feature being tampered with.

17. The Company has paid/ provided for managerial remuneration in accordance with the requisite approvals mandated by the provisions of Section 197 read with Schedule V to the Act. The joint operations have not paid/ provided for managerial remuneration during the year.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/E-300009

Sarah George
Partner
Membership Number: 045255
UDIN: 24045255BKGUFE5017

Place : Mumbai
Date : May 24, 2024

Annexure A to Independent Auditor's Report

Referred to in paragraph 16(g) of the Independent Auditor's Report of even date to the members of Hindalco Industries Limited on the standalone financial statements as of and for the year ended March 31, 2024

Report on the Internal Financial Controls with reference to Standalone Financial Statements under clause (i) of sub-section 3 of Section 143 of the Act

1. We have audited the internal financial controls with reference to the standalone financial statements of Hindalco Industries Limited ("the Company") as of March 31, 2024 in conjunction with our audit of the standalone financial statements of the Company for the year ended on that date, which includes internal financial controls with reference to financial statements of the Company's two joint operations, as of that date.

Management's Responsibility for Internal Financial Controls

2. The respective Board of Directors of the Company and its joint operations, to whom reporting under clause (i) of sub section 3 of Section 143 of the Act in respect of the adequacy of the internal financial controls with reference to financial statements is applicable, are responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Company and its joint operations considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting ("the Guidance Note") issued by the Institute of Chartered Accountants of India ("ICAI"). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to Company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Act.

Auditor's Responsibility

3. Our responsibility is to express an opinion on the Company's internal financial controls with reference to financial statements based on our audit. We conducted our audit in accordance with the Guidance Note and the Standards on Auditing deemed to be prescribed under Section 143(10) of the Act to the extent applicable to an audit of internal financial controls, both applicable to an audit of internal financial controls and both issued by the ICAI. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to financial statements was established and maintained and if such controls operated effectively in all material respects.

4. Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system with reference to financial statements and their operating effectiveness. Our audit of internal financial controls with reference to financial statements included obtaining an understanding of internal financial controls with reference to financial statements, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

5. We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors in terms of their reports referred to in the Other matter paragraph below is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system with reference to financial statements.

Annexure A to Independent Auditor's Report

Meaning of Internal Financial Controls with reference to financial statements

6. A Company's internal financial controls with reference to financial statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A Company's internal financial controls with reference to financial statements includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorisations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial Controls with reference to financial statements

7. Because of the inherent limitations of internal financial controls with reference to financial statements, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to financial statements to future periods are subject to the risk that the internal financial controls with reference to financial statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

8. In our opinion, the Company and its joint operations, has in all material respects, an adequate internal financial controls system with reference to financial statements and such internal financial controls with reference to financial statements were operating effectively as at March 31, 2024, based on the internal control over financial reporting criteria established by the Company and its joint operations considering the essential components of internal control stated in the Guidance Note issued by ICAI.

Other Matter

9. Our aforesaid report under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls with reference to financial statements insofar as it relates to two joint operations, is based on the corresponding reports of the auditors of such joint operations. Our opinion is not modified in respect of this matter.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/E-300009

Sarah George
Partner
Membership Number: 045255
UDIN: 24045255BKGUFE5017

Place : Mumbai
Date : May 24, 2024

Annexure B to Independent Auditor's Report

Referred to in paragraph 15 of the Independent Auditors' Report of even date to the members of Hindalco Industries Limited on the standalone financial statements as of and for the year ended March 31, 2024

In terms of the information and explanations sought by us and furnished by the Company, and the books of account and records examined by us during the course of our audit, and to the best of our knowledge and belief, we report that:

i. (a) (A) The Company is maintaining proper records showing full particulars, including quantitative details and situation, of Property, Plant and Equipment.

(B) The Company is maintaining proper records showing full particulars of Intangible Assets.

(b) The Property, Plant and Equipment are physically verified by the Management according to a phased programme designed to cover all the items over a period of 3 years which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. Pursuant to the programme, a portion of the Property, Plant and Equipment has been physically verified by the Management during the year and no material discrepancies have been noticed on such verification.

(c) The title deeds of all the immovable properties (other than properties where the Company is the lessee and the lease agreements are duly executed in favour of the lessee), as disclosed in Note 3A on 'Property, Plant and Equipment', Note 3C 'Right of Use Assets', Note 3E on 'Investment Properties' and Note 9 on 'Non-Current Assets Held for Sale' to the standalone financial statements, are held in the name of the Company, except for the following (Also refer Note 3I on 'Title deeds of the Immovable Properties pending for transfer as at 31/03/2024'):

Description of property	Gross carrying value (₹ Crore)	Held in the name of	Whether promoter, director or their relative or employee	Period held - indicate range, where appropriate (Financial year-FY)	Reason for not being held in the name of the Company
Freehold Land (Property, Plant and Equipment and Investment Property) at Bharuch and Dahej;	8	Indogulf Fertilizer and Chemicals Corporation Limited	No	Since FY 2002-2003	The title deeds are held in the name of Indogulf Fertilizer and Chemicals Corporation Limited which has subsequently been amalgamated with the Company.
Freehold Land (Property, Plant and Equipment and Rights of Use Assets) / Buildings (Property, Plant and Equipment) at various locations	5	Indian Aluminium Company Limited	No	Since FY 2004-2005	The title deeds are held in the name of Indian Aluminium Company Limited which has subsequently been amalgamated with the Company.
Freehold Land (Property,Plant and Equipment) at Kuppam	1	SAPA Extrusion India Private Limited	No	Since FY 2021-2022	The title deeds are held in the name of the SAPA Extrusion India Private Limited which has subsequently been acquired by the Company.

Annexure B to Independent Auditor's Report

Description of property	Gross carrying value (₹ Crore)	Held in the name of	Whether promoter, director or their relative or employee	Period held - indicate range, where appropriate (Financial year-FY)	Reason for not being held in the name of the Company
Freehold Land (Property, Plant and Equipment) at Mahan unit	4	Various individual landowners	No	Since FY 2013 -2014	Certain original land-related documents held in the name of original landowners were submitted to the bank that had provided borrowing for the Mahan project. These original documents are required to be submitted to the land department in order to get the title deed registered in the name of the Company. The Company is awaiting receipt of these original land-related documents from the bank to initiate the process of transfer of the title of the land in favour of the Company.
Freehold Land (Property, Plant and Equipment) at Kathautia mine	27	Various individual landowners	No	Since FY 2018 -2019	Approval of the District collector is awaited which is a prerequisite as per the Chota Nagpur Tenancy Act, 1908 to transfer the title deed in the name of the company. The company is in the process of obtaining these approvals.

(d) The Company has not revalued its Property, Plant and Equipment (including Right of Use assets) or intangible assets or both during the year. Consequently, the question of our commenting on whether the revaluation is based on the valuation by a Registered Valuer, or specifying the amount of change, if the change is 10% or more in the aggregate of the net carrying value of each class of Property, Plant and Equipment (including Right of Use assets) or intangible assets does not arise.

(e) Based on the information and explanations furnished to us, no proceedings have been initiated on or are pending against the Company for holding benami property under the Prohibition of Benami Property Transactions Act, 1988 (as amended in 2016) (formerly the Benami Transactions (Prohibition) Act, 1988 (45 of 1988)) and Rules made thereunder, and therefore the question of our commenting on whether the Company has appropriately disclosed the details in the financial statements does not arise.

ii. (a) The physical verification of inventory excluding stocks with third parties has been conducted at reasonable intervals by the Management during the year and, in our opinion, the coverage and procedure of such verification by Management is appropriate. In respect of inventory lying with third parties, these have substantially been confirmed by them. The discrepancies noticed on physical verification of inventory as compared to book records were not 10% or more in aggregate for each class of inventory.

(b) During the year, the Company has been sanctioned working capital limits in excess of ₹ 5 crores, in aggregate, from banks on the basis of security of current assets. The Company has filed quarterly returns or statements with such banks, which are in agreement with the unaudited books of account.

The Company has filed provisional statement with the bank for the quarter ended March 31, 2024, with respect to Company's Aluminium division and the final statement will be submitted to the bank upon finalization of the audited financial statements.

(Also, refer Note 38(c)(x) to the standalone financial statements).

iii. (a) During the year, the Company has made investments in 5 companies, 72 mutual fund schemes, 5 Commercial papers, 2 Certificate of deposits, 7 Bonds/Debentures, granted unsecured loans to three companies and its 360 employees. The aggregate amount during the year, and balance outstanding at the balance sheet date with respect to such loan to its subsidiaries and to its employees are as per the table given below:

Particulars	Aggregate amount of loan granted / provided during the year * (₹ Crore)	Balance outstanding as at balance sheet date in respect of these cases* (₹ Crore)
Subsidiaries	76	Nil
Others	3	3

*excludes amount granted to Hindalco Employee Welfare Trust for administering share based awards to employees of the Company.
(Also, refer Note 5E and Note 30 to the standalone financial statements)

(b) In respect of the aforesaid investments/loans, the terms and conditions under which such loans were granted/ investments were made are not prejudicial to the Company's interest.

(c) In respect of the loans, the schedule of repayment of principal and payment of interest has been stipulated, and the parties are repaying the principal amounts, as stipulated, and are also regular in payment of interest as applicable.

(d) In respect of the loans, there is no amount which is overdue for more than ninety days.

(e) There were no loans /advances in nature of loans which have fallen due during the year and were renewed/extended. Further, no fresh loans were granted to same parties to settle the existing overdue loans/advances in nature of loan.

(f) The loans granted during the year, including to related parties had stipulated the scheduled repayment of principal and payment of interest and the same were not repayable on demand.

iv. In our opinion, the Company has complied with the provisions of Sections 186 of the Companies Act, 2013 (the "Act") in respect of the loans and investments made, and guarantees and security provided by it. The Company has not granted any loans or made any investments or provided any guarantees or security to the parties covered under Sections 185 of the Act. Therefore, the reporting under clause 3(iv) of the Order to that extent are not applicable to the Company.

Annexure B to Independent Auditor's Report

v. The Company has not accepted any deposits or amounts which are deemed to be deposits referred in Sections 73, 74, 75 and 76 of the Act and the Rules framed there under.

vi. Pursuant to the rules made by the Central Government of India, the Company is required to maintain cost records as specified under Section 148(1) of the Act in respect of its products. We have broadly reviewed the same and are of the opinion that, prima facie, the prescribed accounts and records have been made and maintained. We have not, however, made a detailed examination of the records with a view to determine whether they are accurate or complete.

vii. (a) In our opinion, the Company is generally regular in depositing undisputed statutory dues in respect of income tax and provident fund, though there has been a slight delay in a few cases, and is regular in depositing undisputed statutory dues, including profession tax, goods and services tax, employees' state insurance, sales tax, service tax, duty of customs, duty of excise, value added tax, cess and other material statutory dues, as applicable, with the appropriate authorities. Also, refer Note 14A(ii) to the standalone financial statements regarding management's assessment on certain matters relating to provident fund.

(b) There are no statutory dues of provident fund and profession tax as referred to in sub-clause (a) which have not been deposited on account of any dispute. The particulars of other statutory dues referred to in sub-clause (a) as at March 31, 2024, which have not been deposited on account of a dispute, are as follows:

Name of the statute	Nature of dues	Amount (₹ in crore) #	Forum where the disputes are pending	Period to which the amount relates
Central Sales Tax Act and Local Sales Tax (including VAT) Act	Sales Tax	6	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)	1995-2017
		5	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)	1996-1997 and 2002-2007
		15	High Court	1999-2007 and 2012-13
		*	Tribunal	2005-11
The Central Excise Act, 1944	Excise Duty	8	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)	1995-2018
		860	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)	1999-2019
		207	High Court	2001-18
		14	Supreme Court	2003-2007, 2014-15 and 2015-16
	Clean environment cess	16	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)	2017-18
The Customs Act, 1962	Custom Duty	31	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)	2004-2021
		6	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)	2004-2018
		9	High Court	2014-15
The Service Tax under the Finance Act, 1994	Service Tax	3	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)	1996-1997, 2005-2006 and 2007-2018
		494	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)	2001-2018
		20	High Court	2013-17
The Central Goods and Service Tax Act, 2017	Goods and service tax	273	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)	2016-17 to 2023-24
		81	High Court	2017-22
Income Tax Act, 1961	Income Tax	29	Commissioner of Income tax (Appeals)	2006-2007, 2015-2017 and 2019-2020
Building and Other Construction Workers Welfare Cess Act, 1996	BOCW Cess	191	State Labour Commissioner	2008-18
Mines and Minerals (Development and Regulation) Act, 1957	Royalty	62	Certificate Officer/Commissioner cum revisional authority	1991-2011, 2008-2020
Orissa Entry Tax, 1999	Entry Tax	*	High Court	2003-18
		27	Supreme Court	2007-18
		24	Tribunal	2007-12
Uttar Pradesh Tax on Entry of Goods into Local Areas Act, 2007	Entry Tax	298	High Court	2000-12
Uttar Pradesh Stamp Act	Stamp Duty	253	High Court	2006-07

Annexure B to Independent Auditor's Report

Name of the statute	Nature of dues	Amount (₹ in crore) #	Forum where the disputes are pending	Period to which the amount relates
Uttar Pradesh Kshetra Panchayat and Zila Panchayat Adhiniyam, 1961	Toll Tax	54	High Court	2003-17
Gujarat Sales Tax Act, 1969	Sales Tax	5	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)	1998-1999, 2002-2003
Madhya Pradesh VAT Act, 2002	Sales Tax	*	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)	2008-2009
Procurement of Energy from Renewable Resources, 2010 (Regulations)	Renewable Power Obligation	5	High Court	2010-11

The above amounts does not include the matters where the Company has favourable orders at various forums without an outstanding demand as at year end and the Revenue authorities have preferred an appeal.

above amounts are net of payments made under protest.

* Represents amounts below the rounding off convention used in this report.

viii. There are no transactions previously unrecorded in the books of account that have been surrendered or disclosed as income during the year in the tax assessments under the Income Tax Act, 1961.

ix. (a) The Company has not defaulted in repayment of loans or other borrowings or in the payment of interest to any lender during the year.

(b) On the basis of our audit procedures, we report that the Company has not been declared Wilful Defaulter by any bank or financial institution or government or any government authority.

(c) The Company has not obtained any term loans during the year ended March 31, 2024 and there was no unutilized balance of term loan obtained in earlier years as on April 1, 2023. Accordingly, reporting under clause 3(ix)(c) of the Order is not applicable to the Company.

(d) According to the information and explanations given to us, and the procedures performed by us, and on an overall examination of the standalone financial statements of the Company, we report that no funds raised on short-term basis have been utilised for long-term purposes by the Company.

(e) On an overall examination of the standalone financial statements of the Company, we report that during the year, the Company has not taken any funds from any entity or person on account of or to meet the obligations of its subsidiaries, associates or joint ventures.

(f) According to the information and explanations given to us and procedures performed by us, we report that the Company has not raised loans during the year on the pledge of securities held in its subsidiaries, joint ventures or associate companies.

x. (a) The Company has not raised any money by way of initial public offer or further public offer (including debt instruments) during the year. Accordingly, the reporting under clause 3(x)(a) of the Order is not applicable to the Company.

(b) The Company has not made any preferential allotment or private placement of shares or fully or partially or optionally convertible debentures during the year. Accordingly, the reporting under clause 3(x)(b) of the Order is not applicable to the Company.

xi. (a) During the course of our examination of the books and records of the Company, carried out in accordance with the generally accepted auditing practices in India, except for an instance aggregating ₹ 2 crores identified by management and for which the management has taken appropriate steps including implementation of additional controls, we have neither come across any instance of material fraud by the Company or on the Company, noticed or reported during the year, nor have we been informed of such case by the Management.

(b) During the course of our examination of the books and records of the Company, carried out in accordance with the generally accepted auditing practices in India, a report under Section 143(12) of the Act, in Form ADT-4, as prescribed under rule 13 of Companies (Audit and Auditors) Rules, 2014 is required to be filed with the Central Government in relation to the matter explained in clause (xi)(a) above, and in connection with that filing we are taking appropriate steps.

(c) During the course of our examination of the books and records of the Company carried out in accordance with the generally accepted auditing practices in India, the Company has received whistle-blower complaints during the year, which have been considered by us for any bearing on our audit and reporting under this clause. In respect of two complaints, for which preliminary findings of the investigations have been provided to us by management, our consideration of the complaint having any bearing on our audit is limited to such preliminary findings.

xii. As the Company is not a Nidhi Company and the Nidhi Rules, 2014 are not applicable to it, the reporting under clause 3(xii) of the Order is not applicable to the Company.

xiii. The Company has entered into transactions with related parties in compliance with the provisions of Sections 177 and 188 of the Act. The details of related party transactions have been disclosed in the standalone financial statements as required under Indian Accounting Standard 24 "Related Party Disclosures" specified under Section 133 of the Act.

xiv. (a) In our opinion, the Company has an internal audit system commensurate with the size and nature of its business.

(b) Some of the Internal Audit Reports of the Company are in progress and accordingly, we have considered the Internal Audit Reports completed and made available to us for the purpose of our audit.

xv. In our opinion, the Company has not entered into any non-cash transactions with its directors or persons connected with him. Accordingly, the reporting on compliance with the provisions of Section 192 of the Act under clause 3(xv) of the Order is not applicable to the Company.

xvi. (a) The Company is not required to be registered under Section 45-IA of the Reserve Bank of India Act, 1934. Accordingly, the reporting under clause 3(xvi)(a) of the Order is not applicable to the Company.

(b) The Company has not conducted non-banking financial / housing finance activities during the year. Accordingly, the reporting under clause 3(xvi)(b) of the Order is not applicable to the Company.

(c) The Company is not a Core Investment Company (CIC) as defined in the regulations made by the Reserve Bank of India. Accordingly, the reporting under clause(xvi)(c) of the Order is not applicable to the Company.

Annexure B to Independent Auditor's Report

(d) Based on the information and explanations provided by the management of the Company, the Group, as defined in the Core Investment Companies (Reserve Bank) Directions, 2016, has five CICs as part of the Group. We have not, however, separately evaluated whether the information provided by the management is accurate and complete.

xvii. The Company has not incurred any cash losses in the financial year or in the immediately preceding financial year.

xviii. There has been no resignation of the statutory auditors during the year and accordingly the reporting under clause 3(xviii) of the Order is not applicable.

xix. On the basis of the financial ratios (Also refer Note 37 to the standalone financial statements), ageing and expected dates of realisation of financial assets and payment of financial liabilities, other information accompanying the standalone financial statements, our knowledge of the Board of Directors and management plans and based on our examination of the evidence supporting the assumptions, nothing has come to our attention, which causes us to believe that any material uncertainty exists as on the date of the audit report that the Company is not capable of meeting its liabilities existing at the date of balance sheet as and when they fall due within a period of one year from the balance sheet date. We, however, state that this is not an assurance as to the future viability of the Company. We further state that our reporting is based on the facts up to the date of the audit report and we neither give any guarantee nor any assurance that all liabilities falling due within a period of one year from the balance sheet date will get discharged by the Company as and when they fall due.

xx. (a) In respect of other than ongoing projects, as at balance sheet date, the Company does not have any amount remaining unspent under Section 135(5) of the Act. Accordingly, reporting under clause 3(xx)(a) of the Order is not applicable.

(b) The Company has transferred the amount of Corporate Social Responsibility remaining unspent under sub-section (5) of Section 135 of the Act pursuant to ongoing project/(s) to a special account in compliance with the provision of sub-section (6) of Section 135 of the Act. (Also, refer Note 38(a) to the standalone financial statements)

xxi. As required by paragraph 3(xxi) of the CARO 2020, we report that the auditors of the following joint operation companies, which are companies incorporated in India, have given qualification or adverse remarks in their CARO report on the standalone financial statements of the respective joint operation companies which are consolidated in standalone financial statements of the Company:

Sr. No.	Name of the Company	CIN	Relationship with the Holding Company	Date of the respective auditors' report	Paragraph number and comment in the respective CARO report reproduced below
1	Mahan Coal Limited	U01010MP2006PLC018586	Joint Operation	May 16, 2024	xiv. The Company did not have an internal audit system for the year under Audit. xvii. The Company has incurred cash losses during the current financial year as well as in the immediately preceding financial year. The amount of cash loss during the current year is ₹ 1,198.49 and ₹ 2,065.01 (₹ In hundreds) in the immediately preceding financial year.
2	Tubed Coal Mines Limited	U10100MH2007PLC174466	Joint Operation	April 24, 2024	vii. (b) According to the information and explanations provided by management and the records examined by us, the Company is yet to pay Professional Tax of ₹ 4,600/- for FY 18-19, ₹ 4,600/- for FY 19-20, ₹ 4,600/- for FY 20-21, ₹ 3,700/- for FY 21-22, ₹ 2,500/- for FY 22-23 and ₹ 10,368/- for FY 23-24.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/E-300009

Sarah George
Partner
Membership Number: 045255
UDIN: 24045255BKGUFE5017

Place : Mumbai
Date : May 24, 2024

Standalone Balance Sheet

as at March 31, 2024

(₹ Crore)

	Note	As At 31/03/2024	As At 31/03/2023
ASSETS			
Non-Current Assets			
Property, Plant and Equipment	3A	31,449	30,304
Capital Work-in-Progress	3B	4,031	2,968
Right of Use Assets	3C	1,209	1,272
Investment Properties	3E	33	7
Goodwill	4	4	4
Other Intangible Assets	3F	519	516
Intangible Assets Under Development	3F	9	19
Financial Assets	5		
Investment in Subsidiaries	5A	15,809	15,805
Investment in Associates and Joint Ventures	5B	148	190
Other Investments	5C	10,830	8,009
Loans	5E	107	174
Derivatives	5F	81	120
Other Financial Assets	5G	972	1,438
Non-Current Tax Assets (Net)	6B	-	-
Other Non-Current Assets	7	1,231	1,036
Total Non-Current Assets		**66,432**	**61,862**
Current Assets			
Inventories	8A	19,505	20,186
Financial Assets	5		
Investments	5D	2,948	5,762
Trade Receivables	5H	2,478	2,610
Cash and Cash Equivalents	5I	864	472
Bank Balances other than Cash and Cash Equivalents	5J	716	1,317
Loans	5E	30	5
Derivatives	5F	254	516
Other Financial Assets	5G	1,056	524
Other Current Assets	7	2,721	3,647
		30,572	35,039
Non-Current Assets Held for Sale	9	32	21
Total Current Assets		30,604	35,060
Total Assets		**97,036**	**96,922**

(₹ Crore)

	Note	As At 31/03/2024	As At 31/03/2023
EQUITY AND LIABILITIES			
Equity			
Equity Share Capital	10	222	222
Other Equity	11	63,485	58,267
Total Equity		**63,707**	**58,489**
Liabilities			
Non-Current Liabilities			
Financial Liabilities	12		
Borrowings	12A	7,123	11,559
Lease Liabilities	3D	606	649
Derivatives	5F	-	4
Other Financial Liabilities	12C	125	61
Provisions	13	314	276
Employee Benefit Obligations	14B	161	145
Deferred Tax Liabilities (Net)	6C	5,315	4,704
Other Non-Current Liabilities	16	680	654
Total Non-Current Liabilities		14,324	18,052
Current Liabilities			
Financial Liabilities	12		
Borrowings	12B	517	749
Lease Liabilities	3D	130	114
Supplier's Credit	12D	4,475	5,635
Trade Payables	12E		
(I) Outstanding dues of Micro and Small Enterprises		149	161
(II) Outstanding dues of creditors other than Micro and Small Enterprises		9,060	9,582
Derivatives	5F	153	190
Other Financial Liabilities	12C	1,062	747
Provisions	13	831	914
Employee Benefit Obligations	14B	317	282
Contract Liabilities	15	217	193
Current Tax Liabilities (Net)	6B	1,320	1,244
Other Current Liabilities	16	774	570
Total Current Liabilities		19,005	20,381
Total Liabilities		33,329	38,433
Total Equity and Liabilities		**97,036**	**96,922**
Notes forming part of standalone financial statements	1-39		

This is the Standalone Balance Sheet referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place : Mumbai
Dated : May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN- 00026078

Standalone Statement of Profit and Loss

for the year ended March 31, 2024

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
INCOME			
Revenue from Operations	17	83,009	76,878
Other Income	18	703	586
Total Income		**83,712**	**77,464**
EXPENSES			
Cost of Materials Consumed	19	54,963	45,793
Purchases of stock-in-trade	20	1,759	1,553
Changes in inventories of Finished Goods, Work-in-Progress and Stock-in-Trade	8B	(79)	1,062
Employee Benefits Expense	14A	2,450	2,218
Power and Fuel	21	9,087	11,318
Finance Cost	22	1,268	1,300
Depreciation and Amortization Expense	3G	1,961	1,874
Impairment Loss/ (Reversal) on Non-Current Assets (Net)	3H	-	53
Impairment Loss/ (Reversal) on Financial Assets (Net)	23	11	12
Other Expenses	24	7,318	7,447
Total Expenses		**78,738**	**72,630**
Profit/(Loss) before Exceptional Items and Tax		4,974	4,834
Exceptional Income/ (Expenses) (Net)	25	21	41
Profit/(Loss) before Tax		**4,995**	**4,875**
Tax Expenses	6A		
Current Tax Expense		893	917
Deferred Tax Expense		405	632
Profit/(Loss) for the year		**3,697**	**3,326**

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
Other Comprehensive Income/ (Loss)	26		
Items that will not be reclassified to Statement of Profit and Loss			
Remeasurement of Defined Benefit Obligation		-	(10)
Change in Fair Value of Equity Instruments Designated as FVTOCI		2,704	(485)
Income Tax effect		(299)	37
Items that will be reclassified to Statement of Profit and Loss			
Change in Fair Value of Debt Instruments Designated as FVTOCI		6	(13)
Effective Portion of Cash flow Hedges		(216)	3,269
Cost of Hedging Reserve		(36)	64
Income Tax effect		86	(1,160)
Other Comprehensive Income/ (Loss) for the year		**2,245**	**1,702**
Total Comprehensive Income/ (Loss) for the year		**5,942**	**5,028**
Earnings Per Share	27		
Basic (₹)		16.64	14.96
Diluted (₹)		16.62	14.94
Notes forming part of standalone financial statements	1-39		

This is the Standalone Statement of Profit and Loss referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place : Mumbai
Dated : May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Geetika Anand
Company Secretary

Satish Pai
Managing Director
DIN-06646758

K N Bhandari
Director
DIN- 00026078

Standalone Statement of Changes in Equity

for the year ended March 31, 2024

A Equity Share Capital

(₹ crore)

Particulars	Note	Amount
Balance as at 01/04/2022	10	222
Changes in Equity Share Capital		-
Balance as at 31/03/2023	10	222
Changes in Equity Share Capital		-
Balance as at 31/03/2024	10	222

B Other Equity

(₹ Crore)

Particulars	Note	Share Application Money Pending Allotment	Reserves and Surplus									Other Reserves				Total Other Equity
			Capital Reserve	Capital Redemption Reserve	Business Recons-truction Reserve	Securities Premium	Debenture Redem-ption Reserve	Employee Stock Options	Treasury Shares held by ESOP Trust	General Reserve	Retained Earnings	Gain/ (Loss) on Equity Instruments FVTOCI	Gain/ (Loss) on Debt Instruments FVTOCI	Effective portion of Cash Flow Hedge	Cost of Hedging Reserve	
Balance as at 01/04/2022		-	145	102	7,715	8,233	1,500	76	(199)	21,354	10,252	6,923	(5)	(1,851)	(39)	54,206
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	3,326	-	-	-	-	3,326
Other Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	(7)	(451)	(9)	2,127	42	1,702
Total Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	3,319	(451)	(9)	2,127	42	5,028
Hedging (Gain)/ Loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Debenture Redemption Reserve		-	-	-	-	-	(1,500)	-	-	-	1,500	-	-	-	-	-
Transactions with owners in their capacity as owners																
Shares Acquired by the Trust		-	-	-	-	-	-	-	(131)	-	-	-				(131)
Shares Issued by the Trust		-	-	-	-	1	-	(15)	24	-	(3)	-	-	-	-	7
Employee Share Options Expenses		-	-	-	-	-	-	47	-	-	-	-	-	-	-	47
Employee Share Options Lapsed/Forfeited		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dividends Paid		-	-	-	-	-	-	-	-	-	(890)	-	-	-	-	(890)
Balance as at 31/03/2023	11	-	145	102	7,715	8,234	-	108	(306)	21,354	14,178	6,472	(14)	276	3	58,267

(₹ Crore)

Particulars	Note	Share Application Money Pending Allotment	Reserves and Surplus									Other Reserves				Total Other Equity
			Capital Reserve	Capital Redemption Reserve	Business Recons-truction Reserve	Securities Premium	Debenture Redem-ption Reserve	Employee Stock Options	Treasury Shares held by ESOP Trust	General Reserve	Retained Earnings	Gain/ (Loss) on Equity Instruments FVTOCI	Gain/ (Loss) on Debt Instruments FVTOCI	Effective portion of Cash Flow Hedge	Cost of Hedging Reserve	
Balance as at 31/03/2023	11	-	145	102	7,715	8,234	-	108	(306)	21,354	14,178	6,472	(14)	276	3	58,267
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	3,697	-	-	-	-	3,697
Other Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	-	2,405	4	(141)	(23)	**2,245**
Total Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	3,697	2,405	4	(141)	(23)	5,942
Hedging (Gain)/ Loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	(15)	-	(15)
Transfer to Retained Earnings from Debenture Redemption Reserve		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transactions with owners in their capacity as owners																
Shares Acquired by the Trust		-	-	-	-	-	-	-	(119)	-	-	-	-	-	-	(119)
Shares Issued by the Trust		-	-	-	-	1	-	(27)	48	-	(2)	-	-	-	-	20
Employee Share Options Expenses		-	-	-	-	-	-	57	-	-	-	-	-	-	-	57
Employee Share Options Lapsed/Forfeited		-	-	-	-	-	-	(1)	-	-	1	-	-	-	-	-
Dividends Paid		-	-	-	-	-	-	-	-	-	(667)	-	-	-	-	(667)
Balance as at 31/03/2024	11	-	145	102	7,715	8,235	-	137	(377)	21,354	17,207	8,877	(10)	120	(20)	63,485
Notes forming part of standalone financial statements	1-39															

This is the Standalone Statement of Changes in Equity referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place : Mumbai
Dated : May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Geetika Anand
Company Secretary

Satish Pai
Managing Director
DIN-06646758

K N Bhandari
Director
DIN- 00026078

Standalone Statement of Cash Flows

for the year ended March 31, 2024

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit/ (Loss) before Tax		4,995	4,875
Adjustment for :			
Finance Cost	22	1,268	1,300
Depreciation and Amortization Expense	3G	1,961	1,874
Impairment Loss/ (Reversal) on Non-Current Assets	3H	-	53
Impairment Loss/ (Reversal) on Financial Assets (Net)	23	11	12
Equity settled share-based payment	14A	56	47
Other Non-Operating (Income)/Expenses (Net)		(8)	(180)
Unrealised Foreign Exchange (Gain)/ Loss (Net)		(1)	(59)
Unrealised (Gain)/ Loss on Derivative Transactions (Net)		32	(445)
Fair Value (Gain)/ Loss on modification of Borrowings (Net)		(48)	(48)
(Gain)/ Loss on Assets held for Sale (Net)		-	-
(Gain)/ Loss on Property, Plant and Equipment and Intangible Assets Sold/ Discarded (Net)	18	28	31
Interest Income	18	(354)	(290)
Dividend Income	18	(34)	(33)
Exceptional (Income)/ Expense (Net)	25	(21)	(41)
Changes in Cash Flow Hedges net of reclassification from OCI		15	1
(Gain)/ Loss on Investments measured at FVTPL (Net)	18	(235)	(163)
Operating Profit before Working Capital Changes		**7,665**	**6,934**
Changes in Working Capital:			
(Increase)/ Decrease in Inventories (Net)		816	846
(Increase)/ Decrease in Trade Receivables		121	51
(Increase)/ Decrease in Other Financial Assets		(104)	19
(Increase)/ Decrease in Other Non-Financial Assets		938	(1,148)
Increase/ (Decrease) in Trade Payables		(715)	(1,092)
Increase/ (Decrease) in Other Financial Liabilities		-	(6)
Increase/ (Decrease) in Non-Financial Liabilities (including Contract Liabilities)		216	26
Cash Generated from Operation before Tax		**8,937**	**5,630**
Refund/ (Payment) of Income Tax (Net)		(825)	(794)
Net Cash Generated/ (Used) - Operating Activities		**8,112**	**4,836**
B. CASH FLOW FROM INVESTING ACTIVITIES			
Payments to acquire Property Plant and Equipment, Intangible Assets and Investment Property		(3,776)	(2,678)
Proceeds from disposal of Property Plant and Equipment, Intangible Assets and Investment Property		45	52
Investment in Subsidiaries		(4)	(4)
Return of Capital from Subsidiary		-	793
Investment in Associates and Joint Ventures		(26)	(17)
(Purchase)/ Sale of Investment in Equity Shares at FVTOCI (Net)		(43)	-
(Purchase)/ Sale of Other Investments (Net)		3,049	(1,047)
Loans and Deposits given		(1,707)	(3,022)
Receipt of Loans and Deposits given		2,479	4,224
Interest Received		261	233
Dividend Received		34	33
Net Cash Generated/ (Used) - Investing Activities		**312**	**(1,433)**

(₹ Crore)

	Note	Year ended 31/03/2024	Year ended 31/03/2023
C. CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from issue of Equity Shares (Including Share Application Money)		-	-
Treasury Shares acquired by ESOP Trust		(119)	(131)
Proceeds from Shares issued by ESOP Trust		20	6
Proceeds from Non-Current Borrowings	12A	-	700
Pre-payment of Non-Current Borrowings	12A	(4,495)	(74)
Repayment of Non-Current Borrowings	12A	(700)	(6,002)
Increase/ (Decrease) in Supplier's Credit (Net)	12D	(1,166)	3,214
Principal Payments of Leases Liabilities	12B	(93)	(132)
Proceeds from/ (Repayment of) Current Borrowings (Net)	12B	513	(1,378)
Finance Cost Paid		(1,329)	(1,651)
Dividend Paid		(667)	(890)
Net Cash Generated/ (Used) - Financing Activities		**(8,036)**	**(6,338)**
Net Increase/(Decrease) in Cash and Cash Equivalents		**388**	**(2,935)**
Add: Opening Cash and Cash Equivalents		470	3,405
Closing Cash and Cash Equivalents		**858**	**470**
Reconciliation of Closing Cash and Cash Equivalents with Balance Sheet:			
Cash and Cash Equivalents as per Balance Sheet	5I	**864**	**472**
Less: Temporary Overdraft Balance in Current Accounts	12C	(6)	(2)
Cash and Cash Equivalents as per Cash Flow Statement		**858**	**470**
Supplemental Information			
Non Cash Transactions from Investing and Financing Activities:			
Acquisition of Right of Use Assets	3C	**65**	**555**

Above Statement of Cash flows has been prepared using the indirect method, whereby the profit before tax is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments and item of income or expenses associated with investing or financing cash flows. The cash flows from operating, investing and financing activities of the Company are segregated.

For the purposes of the statement of cash flow, cash and cash equivalents is net of outstanding bank overdrafts which are an integral part of cash management activities. In the standalone balance sheet, bank overdrafts are shown within borrowings in current liabilities.

Notes forming part of standalone financial statements **1-39**

This is the Standalone Statement of Cash Flows referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place : Mumbai
Dated : May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN- 00026078

Notes

forming part of the Standalone Financial Statements

1. Company Information:

Hindalco Industries Limited ("the Company"), bearing Corporate Identity Number L27020MH1958PLC011238, is a public limited company incorporated in India in the year 1958. The Company is domiciled in India and its registered office is at 21st Floor, One Unity Center, Senapati Bapat Marg, Prabhadevi, Mumbai 400013. The equity shares of the Company are listed on the National Stock Exchange of India Limited (NSE) and BSE Limited (BSE) and its Global Depositary Receipts (GDR) are listed on the Luxembourg Stock Exchange.

The Company along with its subsidiaries has manufacturing operations in eleven countries including India spread over four continents viz North America, South America, Asia and Europe. The Company is primarily engaged in two main streams of business namely Aluminium and Copper.

In the Aluminium business, the Company has presence across the entire value chain starting from mining of bauxite and coal through production of primary Aluminium (Upstream Segment) and value added products (Downstream Segment) like flat rolled product, extrusion and light gauge products for use in various applications like packaging, can, foil, food and beverage as well as products for use in aerospace, automotive, electronic, transportation, building and construction and other industrial products.

In the Copper business, the Company has one of the largest single location Copper smelting facility in India. The Company produces copper cathode, copper rods and precious metals.

The standalone financial statements ("the financial statements") which have been approved for issue by the Board of Directors of the Company in their meeting held on May 24, 2024 presents the financial position of the Company as well as its interest in the Joint Operations and trusts controlled by the Company.

1A. Joint operations:

The Company is one of the parties to the following joint operations. The parties have rights to the assets, and obligations for the liabilities, relating to these joint operations. By virtue of contractual arrangements, decisions about the relevant activities require unanimous consent of the parties sharing control.

Following joint arrangements has been identified as joint operations:

Sr. No.	Name of the Joint Operations	% of Holding	Country of Incorporation
1	Mahan Coal Limited (i)	50%	India
2	Tubed Coal Mines Limited (ii)	60%	India

Proportionate share of total assets, liabilities and total comprehensive income in joint operations are included in the standalone financial statements.

i. The Company and Essar Power M.P. Limited ('EPMPL') has joint control over Mahan Coal Limited ('MCL'), a coal mining company. The coal blocks of MCL had been deallocated.

ii. The Company and Tata Power Company Limited ('TPL') has joint control over Tubed Coal Mines Limited ('TCML'), a coal mining company. The coal blocks of TCML had been deallocated.

1B. Interest in Trusts controlled by the Company accounted as Treasury Shares:

The following trusts have been considered as an extension of the Company and are included in these standalone financial statements:

Sr. No.	Name of the Trusts	% of Holding	Country of Incorporation
1	Trident Trust	#	India
2	Hindalco Employee Welfare Trust	#	India

Treasury Shares are held in Trusts whose sole beneficiary is Hindalco Industries Limited, Refer Note 10(b) (i) and (ii) for further details.

2. Basis of Preparation and Accounting Policy Information

The basis of preparation and the material accounting policies have been applied consistently to all the periods presented in the standalone financial statements, except where newly issued accounting standard are initially adopted or a revision to an existing accounting standard requires change in accounting policy hitherto in use.

Compliance of Ind AS

The standalone financial statements comply in all material aspects with the Indian Accounting Standards ("Ind-AS") as prescribed under section 133 of the Companies Act 2013 ("the Act"), other relevant provisions of the Act as notified under the Companies (Indian Accounting Standards) Rules, 2015, (including subsequent amendments) and other accounting principles generally accepted in India.

2A. Basis of preparation

The standalone financial statements have been prepared and presented on the going concern basis using accrual basis of accounting and under the historical cost convention except for following assets and liabilities which are measured at fair value:

- Derivative financial instruments; see Note 5F for accounting policy
- Certain financial assets and liabilities; see Note 5, 12, 18 and 35 for accounting policy
- Assets held for sale; see Note 9 for accounting policy
- Employee's defined benefit plan assets and liabilities; see Note 14B(a) for accounting policy
- Liability for cash based share-based payments; see 14B(b) for accounting policy
- Inventories those are designated in a fair value hedge relationship; see Note 8A, 5F for accounting policy
- Assets and liabilities designated as hedged items in fair value hedges that would otherwise be carried at amortised cost are adjusted to record changes in the fair values attributable to the risks that are being hedged in effective hedge accounting; see Note 5F for accounting policy

In preparing the financial statements, transactions in currencies other than the Company's functional currency (foreign currencies) are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated at the rates prevailing at that date. Non-monetary items are measured at historical cost.

Exchange differences on monetary items are recognised in the statement of profit and loss in the period in which they arise, except for:

- eligible exchange differences on foreign currency borrowings relating to qualifying assets under construction are included in the cost of those assets when they are regarded as an adjustment to interest costs; and
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see Note 5F for accounting policies).

Notes

forming part of the Standalone Financial Statements

Changes in the fair value of non-monetary equity instruments irrevocably classified as fair value through other comprehensive income includes gain or loss on account of exchange differences.

The fair value of financial liabilities and financial assets denominated in a foreign currency are translated at the spot rate at the end of the reporting period. The foreign exchange component forms part of its fair value gain or loss. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured.

The Company has determined current and non-current classification of its assets and liabilities in the standalone financial statements as per the Company's normal operating cycle, and other criteria set out in Schedule III of the Companies Act, 2013. Based on the nature of products and the time lag between the acquisition of assets for processing and their realisation in cash and cash equivalents, the Company has ascertained its normal operating cycle as 12 months for the purpose of current and non-current classification of its assets and liabilities.

The standalone financial statements have been presented in Indian Rupees (₹), which is the functional currency of the Company and the currency of the primary economic environment in which the Company operates. All financial information presented in Indian Rupees has been rounded off to nearest Crore Rupees (₹ 1 Crore = ₹ 10,000,000) without any decimal unless otherwise stated. Amounts below rounding off convention or equal to zero are represented as "-" in the standalone financial statements.

The Company determines materiality depending on the nature or magnitude of information, or both. Information is material if omitting, misstating or obscuring it could reasonably influence decisions made by the primary users, on the basis of those financial statements.

2B. Accounting policy information

The material accounting policies adopted in preparation of standalone financial statements has been disclosed in the pertinent note along with other information in italics. All accounting policies has been consistently applied to all the period presented in the standalone financial statements unless otherwise stated.

2C. Recent Accounting Pronouncements

a) New and amended standards adopted by the Company

The Ministry of Corporate Affairs had vide notification dated March 31, 2023 notified Companies (Indian Accounting Standards) Amendment Rules, 2023 (the 'Rules') which amends certain accounting standards, and are effective April 1, 2023.

The rules predominantly amend

- Disclosure of accounting policies - amendment to Ind AS 1
- Definition of accounting estimates - amendment to Ind AS 8
- Deferred tax related to assets and liabilities arising from single transaction - amendment to Ind AS 12.

The other amendments to Ind AS notified by these rules are primarily in the nature of clarifications.

These amendments do not have a material impact on the Company in the current or future reporting periods and on foreseeable future transactions.

b) New and amended standards issued but not effective –

There are no standards that are notified and not yet effective as on the date

3A. Property, Plant and Equipment

Property, plant and equipment held for use in the production or/and supply of goods or services, or for administrative purposes are stated in the balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses except for freehold land (other than freehold land used for mining) which is carried at historical cost.

The present value of obligatory decommissioning cost related to assets are included in the initial cost of such assets. Cost may also include effective portion on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment transferred from hedge reserve as basis adjustment.

Subsequent expenditure on major maintenance or repairs includes the cost of the replacement of parts of assets and overhaul costs. Where an asset or part of an asset is replaced and it is probable that future economic benefits associated with the item will be available to the Company, the expenditure is capitalised and the carrying amount of the item replaced is derecognised. Similarly, overhaul costs associated with major maintenance which can be measured reliably are capitalised and depreciated over their useful lives where it is probable that future economic benefits will be available and any remaining carrying amounts of the cost of previous overhauls are derecognised. All other costs are charged to profit and loss during the reporting period in which they are incurred.

The Company based on the technical assessment made by the technical expert/ management estimate, depreciates certain items of building, plant and equipment's over the estimated useful lives which are different from the useful life prescribed in Schedule II to the Companies Act, 2013. The management believes that these estimated useful lives are realistic and reflect fair approximation of the period over which the assets are likely to be used.

The Company reviews the estimated residual values and expected useful lives of assets at least annually. In particular, the Company considers the impact of the health, safety and environmental legislation in its assessment of expected usefule lives and estimated residual values. Furthermore, the Company considers environment-related matters, including physical and transition risks. Specifically, the Company determines whether environment-related legislation and regulations might impact either the useful lives or residual values.Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Items of Property, Plant and Equipment	*Useful Life (Years)$*
Freehold land	*Infinite ^*
Buildings	*5-60*
Plant and Machinery	*6-40*
Vehicles and Aircraft	*8-20*
Railway Wagons	*15*
Railway Sidings	*15*
Furniture and Fixtures	*8-10*
Office Equipment	*3-6*

^ Includes freehold land used for mining which is depreciated over 8 - 30 years.

$ Cost incurred subsequent to capitalisation, accounted as a separate component, is depreciated over the remaining useful life of the underlying asset.

The accounting policy on depreciation and impairment of non-current assets are described in notes 3G and 3H, respectively.

Notes

forming part of the Standalone Financial Statements

The changes in carrying value of Property, Plant and Equipment are given below:

(₹ Crore)

Particulars	COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2023	Additions	Disposal/ Adjustments	As at 31/03/2024	As at 01/04/2023	Additions	Disposal/ Adjustments	As at 31/03/2024	As at 01/04/2023	Recognised/ (Reversed)	Disposal/ Adjustments	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Freehold Land	648	234	-	882	22	4	-	26	1	-	-	1	855	625
Buildings	8,451	336	(13)	8,774	2,714	266	(3)	2,977	86	-	-	86	5,711	5,651
Plant and Machinery	40,286	2,246	(387)	42,145	16,276	1,345	(312)	17,309	683	-	-	683	24,153	23,327
Vehicles and Aircraft	467	59	(18)	508	256	35	(10)	281	-	-	-	-	227	211
Railway Wagons	240	-	-	240	124	12	-	136	-	-	-	-	104	116
Railway Sidings	507	-	-	507	260	28	-	288	17	-	-	17	202	230
Furniture and Fixtures	188	25	(5)	208	115	12	(3)	124	1	-	-	1	83	72
Office Equipment	261	70	(5)	326	188	29	(6)	211	1	-	-	1	114	72
Total	**51,048**	**2,970**	**(428)**	**53,590**	**19,955**	**1,731**	**(334)**	**21,352**	**789**	**-**	**-**	**789**	**31,449**	**30,304**

(₹ Crore)

Particulars	COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2022	Additions	Disposal/ Adjustments	As at 31/03/2023	As at 01/04/2022	Additions	Disposal/ Adjustments	As at 31/03/2023	As at 01/04/2022	Recognised/ (Reversal)	Disposal/ Adjustments	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Freehold Land	638	10	-	648	18	4	-	22	1	-	-	1	625	619
Buildings	8,389	92	(30)	8,451	2,467	259	(12)	2,714	100	-	(14)	86	5,651	5,822
Plant and Machinery	39,817	881	(412)	40,286	15,255	1,291	(270)	16,276	746	-	(63)	683	23,327	23,816
Vehicles and Aircraft	444	44	(21)	467	239	31	(14)	256	-	-	-	-	211	205
Railway Wagons	189	51	-	240	113	11	-	124	-	-	-	-	116	76
Railway Sidings	506	1	-	507	232	28	-	260	17	-	-	17	230	257
Furniture and Fixtures	174	14	-	188	108	7	-	115	1	-	-	1	72	65
Office Equipment	237	30	(6)	261	170	24	(6)	188	1	-	-	1	72	66
Total	**50,394**	**1,123**	**(469)**	**51,048**	**18,602**	**1,655**	**(302)**	**19,955**	**866**	**-**	**(77)**	**789**	**30,304**	**30,926**

(a) The Company's share in jointly owned assets has been grouped together with the relevant class of Property, Plant and Equipment. The proportion of the Cost and Carrying amount included in relevant class of assets are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Cost	Net Carrying Amount	Cost	Net Carrying Amount
Freehold Land	52	52	52	52
Buildings	133	118	54	40
Plant and Machinery	9	5	6	1
Furniture and Fixtures	31	19	29	19
Office Equipment	25	18	8	1

(b) Refer Note 12A for details of Property, Plant and Equipment's (except Jointly owned assets) pledged and hypothecated against borrowings.

(c) The Company has not revalued its property, plant and equipment during the current and previous year.

(d) Refer Note 3I for the details of Immovable properties for which registration/ transfer of title deeds is pending.

3B. Capital Work-in-Progress

Capital work-in-progress comprises of tangible items in the course of construction for production or/and supply of goods or services or administrative purposes are carried at cost, less any accumulated impairment loss. At the point when an asset is capable of operating at management's intended use, the cost of construction is transferred to the appropriate category of property, plant and equipment. Costs associated with the commissioning of an asset are capitalised.

Temporarily suspended projects do not include those projects where temporary suspension is a necessary part of the process of getting an asset ready for its intended use.

The changes in carrying value of Capital Work-in-Progress are given below:

(₹ Crore)

	As at 01/04/2023	Addition	(Impairment)/ Reversal	Disposal/ Adjustment	Capitalised	As at 31/03/2024
Capital Work-in-Progress*	2,968	4,030	-	(3)	(2,964)	4,031
	2,968	**4,030**	**-**	**(3)**	**(2,964)**	**4,031**

*Includes ₹ 54 Crore (year ended 31/03/2023 ₹ 55 Crore) towards cost of land, other development costs including pre-operative expenses, incurred at one of the mines which is surrendered to Ministry of Coal during the current year. The incurred amount will be reimbursed by the prospective allottee to the Company in due course.

(₹ Crore)

	As at 01/04/2022	Addition	(Impairment)/ Reversal	Disposal/ Adjustment	Capitalised	As at 31/03/2023
Capital Work-in-Progress	1,573	2,578	(65)	-	(1,118)	2,968
	1,573	**2,578**	**(65)**	**-**	**(1,118)**	**2,968**

(a) The Company's share in jointly owned assets has been grouped together with the Capital Work-in-Progress. The cost amount are given below :

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Capital Work-in-Progress	73	135
	73	**135**

(b) Capital Work-in-Progress comprise of various projects and expansions spread over all units. Major Capital Work-in-Progress are related to following segments :

(₹ Crore)

Segment	As at	
	31/03/2024	31/03/2023
Aluminium - Upstream	1,707	1,439
Aluminium - Downstream	1,968	1,155
Copper	279	227
Others - Not allocable to segment	77	147
Total	**4,031**	**2,968**

Notes

forming part of the Standalone Financial Statements

(c) Capital Work-in-Progress ageing schedule as at 31/03/2024

(₹ Crore)

Particulars	Amount in Capital Work-in-Progress for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	2,960	672	121	143	3,896
Projects temporarily suspended	-	-	-	135	135
Total	**2,960**	**672**	**121**	**278**	**4,031**

Capital Work-in-Progress ageing schedule as at 31/03/2023

(₹ Crore)

Particulars	Amount in Capital Work-in-Progress for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	2,055	374	280	124	2,833
Projects temporarily suspended	1	1	-	133	135
Total	**2,056**	**375**	**280**	**257**	**2,968**

(d) Capital Work-in-Progress completion schedule for projects, whose completion is overdue or has exceeded its cost compared to its original plan as at 31/03/2024 are given below :

(₹ Crore)

Particulars	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Project in Progress					
Strategic Projects	29	-	-	-	29
Environmental, Occupational Health and Safety Projects	161	-	-	-	161
Project temporarily suspended					
Strategic Projects	-	-	-	79	79
Environmental, Occupational Health and Safety Projects	-	-	-	-	-
Total	**190**	**-**	**-**	**79**	**269**

Capital Work-in-Progress completion schedule for projects, whose completion is overdue or has exceeded its cost compared to its original plan as at 31/03/2023 are given below :

(₹ Crore)

Particulars	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Project in Progress					
Strategic Projects	60	5	-	-	65
Environmental, Occupational Health and Safety Projects	211	-	-	-	211
Project temporarily suspended					
Strategic Projects	-	-	4	73	77
Environmental, Occupational Health and Safety Projects	-	-	-	-	-
Total	**271**	**5**	**4**	**73**	**353**

(e) The Company has tested the carrying value of Capital Work-in-Progress for impairment as at reporting date and has recorded no impairment (year ended 31/03/2023 ₹ 65 Crore), Refer Note 3H (a) for further details.

(f) During the current year, interest capitalised on qualifying assets is ₹ 100 Crore (year ended 31/03/2023 ₹ 48 Crore), Refer Note 22 (c) for further details.

(g) Refer Note 31B(a) for capital expenditures contracted but not incurred.

3C. Right of Use Assets

The Company assesses whether a contract is or contains a lease, at inception of the contract. The Company recognises a right of use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For short term leases, the Company recognises the lease payments as an other expenses on a straight-line basis over the lease term, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed. Contingent and variable rentals are recognized as expense in the periods in which they are incurred.

The Right of Use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

For the certain class of assets, the Company allocates lease or non-lease components on the basis of their relative stand-alone prices while assessing a contract at its inception or on reassessment.

The Company tests Impairment of right-of-use asset and accounts for any identified impairment loss as per its accounting policy on 'Property, Plant and Equipment'.

Extension and termination options are included in many of the leases. In determining the lease term, the management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option.

When the Company is an intermediate lessor, it accounts for the head lease and sublease as two separate contracts. The sublease is classified as finance or operating lease by reference to the right-of-use asset arising from the head lease. Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

When a contract includes lease and non-lease components, the Company applies Ind AS 115, Revenue from Contracts with Customers to allocate the consideration under the contract to each component.

The accounting policy on depreciation and impairment of non-current assets are described in note 3G and 3H, respectively.

The change in the carrying value of Right of Use assets are given below:

(₹ Crore)

Particulars	COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2023	Additions	Disposal/ Adjust-ments	As at 31/03/2024	As at 01/04/2023	Additions	Disposal/ Adjust-ments	As at 31/03/2024	As at 01/04/2023	Recognised/ (Reversed)	Deduction/ Adjust-ments	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Leasehold Land	847	2	-	849	93	31	-	124	-	-	-	-	725	754
Buildings	144	51	(9)	186	31	36	(9)	58	-	-	-	-	128	113
Plant and Machinery	393	-	(11)	382	51	42	(10)	83	-	-	-	-	299	342
Vehicles	49	12	-	61	13	14	-	27	-	-	-	-	34	36
Railway Wagons	41	-	-	41	16	4	-	20	-	-	-	-	21	25
Railway Sidings	2	-	-	2	-	-	-	-	-	-	-	-	2	2
Furniture and Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**1,476**	**65**	**(20)**	**1,521**	**204**	**127**	**(19)**	**312**	**-**	**-**	**-**	**-**	**1,209**	**1,272**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

Particulars	COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2022	Additions	Disposal/ Adjust-ments	As at 31/03/2023	As at 01/04/2022	Additions	Disposal/ Adjust-ments	As at 31/03/2023	As at 01/04/2022	Recognised/ (Reversed)	Deduction/ Adjust-ments	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Leasehold Land	783	67	(3)	847	65	31	(3)	93	-	-	-	-	754	718
Buildings	89	116	(61)	144	60	29	(58)	31	-	-	-	-	113	29
Plant and Machinery	53	352	(12)	393	27	36	(12)	51	-	-	-	-	342	26
Vehicles	42	20	(13)	49	14	12	(13)	13	-	-	-	-	36	28
Railway Wagons	41	-	-	41	12	4	-	16	-	-	-	-	25	29
Railway Sidings	2	-	-	2	-	-	-	-	-	-	-	-	2	2
Furniture and Fixtures	10	-	(10)	0	9	-	(9)	0	-	-	-	-	-	1
Total	**1,020**	**555**	**(99)**	**1,476**	**187**	**112**	**(95)**	**204**	**-**	**-**	**-**	**-**	**1,272**	**833**

(a) Refer Note 3I for the details of Immovable properties for which registration/ transfer of title deeds is pending.

3D. Lease Liabilities

The lease payments that are not paid at the commencement date are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Company, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Company uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk and makes adjustments specific to the lease, e.g. term, security etc.

Lease payments included in the measurement of the lease liability comprise:

- *Fixed lease payments (including in-substance fixed payments) payable during the lease term and under reasonably certain extension options, less any lease incentives;*
- *Variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;*
- *The amount expected to be payable by the lessee under residual value guarantees;*
- *The exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and*
- *Payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.*

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance liability for each period.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Company remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) to reflect any re-assessment, lease modification, or revised in-substance fixed lease payments.

Lease liabilities recognised against Right of Use Assets are as follows:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Lease liabilities against Right of Use Assets	606	130	649	114
	606	**130**	**649**	**114**

(a) The total cash outflows for the leases for the year was ₹ 348 Crore (31/03/2023 ₹ 399 Crore).

(b) Extension and termination options are included in a number of property and equipment leases across the Company. These are used to maximize operational flexibility in terms of managing the assets used in the Company's operations. The majority of extension and termination options held are exercisable only by the Company and not by the respective Lessor.

3E. Investment Properties

Investment properties (held to earn rentals or for capital appreciation or both) are stated in the balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Transfer to, or from, investment property is done at the carrying amount of the property.

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Items of Investment Properties	*Useful Life (Years)*
Freehold Land	*Infinite*
Buildings	*60*

The accounting policy on depreciation and impairment of non-current assets is described in note 3G and 3H, respectively.

The changes in the carrying value of investment properties are given below:

(₹ Crore)

Particulars	COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2023	Addition	Disposal/ Adjustments	As at 31/03/2024	As at 01/04/2023	Addition	Disposal/ Adjustments	As at 31/03/2024	As at 01/04/2023	Recognised/ (Reversed)	Disposal/ Adjustments	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Freehold Land	1	16	-	17	-	-	-	-	-	-	-	-	17	1
Buildings *	12	-	10	22	6	-	-	6	-	-	-	-	16	6
Total	**13**	**16**	**10**	**39**	**6**	**-**	**-**	**6**	**-**	**-**	**-**	**-**	**33**	**7**

* During the current year, certain properties which were occupied by the Company and classified as Property, Plant and Equipments (carrying value ₹ 10 Crore) are now given on lease and accordingly moved to Investment Properties.

(₹ Crore)

Particulars	COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2022	Addition	Disposal/ Adjustments	As at 31/03/2023	As at 01/04/2022	Addition	Disposal/ Adjustments	As at 31/03/2023	As at 01/04/2022	Recognised/ (Reversed)	Disposal/ Adjustments	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Freehold Land	1	-	-	1	-	-	-	-	-	-	-	-	1	1
Buildings	12	-	-	12	5	1	-	6	-	-	-	-	6	7
Total	**13**	**-**	**-**	**13**	**5**	**1**	**-**	**6**	**-**	**-**	**-**	**-**	**7**	**8**

Notes

forming part of the Standalone Financial Statements

(a) Amount recognised in the Statement of Profit and Loss for Investment Properties are as under:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Rental income	4	3
Direct operating expenses (including repairs and maintenance) on properties generating rental income	(1)	(1)
Direct operating expenses (including repairs and maintenance) on properties not generating rental income	-	-

(b) The Company has no contractual obligations to purchase, construct or develop investment properties or for repairs, maintenance and enhancements. There is no restrictions on the realisability of investment properties or the remittance of income and proceeds of disposal on the Company.

(c) Fair value of the Investment properties :

(i) The fair value of the Company's investment properties as at March 31, 2024 and March 31, 2023 have been arrived at on the basis of valuation carried out at the respective dates by an external, independent valuer who is registered under Rule 2 of Companies (Registered Valuers and Valuation) Rules, 2017.

(ii) The fair value measurement for all the investments properties has been categorised as Level 2 based on the inputs to the valuation technique used. Considering the type of the assets, market approach (sales comparable method) to estimate the fair value of the subject properties is adopted. Fair Value of Investment Properties are given below :

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Freehold Land	17	1
Buildings	63	51
	80	**52**

(d) Minimum Lease payments receivable on leases of Investment Properties are given below :

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Within 1 Year	5	4
Between 1 Year and 2 Years	4	5
Between 2 Year and 3 Years	4	4
Between 3 Year and 4 Years	2	4
Between 4 Year and 5 Years	2	2
Later than 5 Years	2	2
	19	**21**

(e) Refer Note 3I for the details of Immovable properties for which registration/ transfer of title deeds is pending.

3F. Other Intangible Assets and Intangible Assets under Development

Intangible assets acquired separately

Intangible assets acquired are reported at cost less accumulated amortization and accumulated impairment losses.

Mineral Reserves, Resources and Rights (Mining Rights)

Mineral reserves, resources and rights (together referred to as 'mining rights') which can be reasonably valued, are recognised in the assessment of fair values on acquisition. Mining rights also includes stripping cost.

Stripping cost

Stripping costs incurred during the mining production phase are allocated between cost of inventory produced and the existing mine asset. The stripping ratio, as approved by the regulatory authority, for the life of the mine is obtained by dividing the estimated quantity of overburden by the estimated quantity of mineable coal / bauxite reserve to be extracted over the life of the mine. This ratio is periodically reviewed and changes, if any, are accounted for prospectively.

Stripping costs are allocated and included as a component of the mine asset when they represent significantly improved access to ore, provided all the following conditions are met:

- *it is probable that the future economic benefit associated with the stripping activity will be realised;*
- *the component of the ore body for which access has been improved can be identified; and*
- *the costs relating to the stripping activity associated with the improved access can be reliably measured.*

The overburden removal costs are included in Mining Rights under Intangible assets and amortised based on stripping ratio on the quantity of coal / bauxite excavated.

Useful life of Other Intangible Assets are given below :

Items of Other Intangible Assets	*Useful Life (Years)*
Mining rights (including Stripping Cost)	*8-41*
Technology and Software	*3-10*
Customer related Intangible assets	*5*

The accounting policy on amortization and impairment of non-current assets is described in note 3G and 3H, respectively.

I. Other Intangible Assets

The changes in the carrying value of intangible assets are given below:

(₹ Crore)

Particulars	COST				ACCUMULATED AMORTIZATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2023	Addition	Disposal/ Adjustments	As at 31/03/2024	As at 01/04/2023	Addition	Disposal/ Adjustments	As at 31/03/2024	As at 01/04/2023	Recognised/ (Reversed)	Disposal/ Adjustments	As at 31/03/2024	As at 31/03/2024	As at 31/03/2023
Mining rights (including Stripping cost)	848	79	-	927	470	74	-	544	44	-	-	44	339	334
Technology and Software	299	27	-	326	130	26	-	156	-	-	-	-	170	169
Customer related Intangible Assets	15	-	-	15	2	3	-	5	-	-	-	-	10	13
Total	**1,162**	**106**	**-**	**1,268**	**602**	**103**	**-**	**705**	**44**	**-**	**-**	**44**	**519**	**516**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

Particulars	COST				ACCUMULATED AMORTIZATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at 01/04/2022	Addition	Disposal/ Adjustments	As at31/03/2024	As at 01/04/2022	Addition	Disposal/ Adjustments	As at 31/03/2023	As at 01/04/2022	Recognised/ (Reversed)	Disposal/ Adjustments	As at 31/03/2023	As at 31/03/2023	As at 31/03/2022
Mining rights (including Stripping cost)	760	88	-	848	390	80	-	470	44	-	-	44	334	326
Technology and Software	301	5	(7)	299	113	24	(7)	130	-	-	-	-	169	188
Customer related Intangible Assets	15	-	-	15	-	2	-	2	-	-	-	-	13	15
Total	**1,076**	**93**	**(7)**	**1,162**	**503**	**106**	**(7)**	**602**	**44**	**-**	**-**	**44**	**516**	**529**

(a) Addition in Mining Rights includes ₹ 79 Crore (as at 31/03/2023, ₹ 86 Crore) and amortization expense includes ₹ 64 Crore (as at 31/03/2023, ₹ 67 Crore) towards stripping activity assets.

(b) Remaining amortization period of Mining rights, Technology and Software and Customer related Intangible assets ranges between 1 -32 years.

(c) The residual value and useful life of Intangible assets are reviewed, and adjusted if appropriate, at the end of each reporting period.

(d) The Company has performed an assessment of its Intangible Assets for possible triggering events or circumstances for an indication of impairment and has concluded that there were no triggering events or circumstances that would indicate the Intangible Assets are impaired.

II. Intangible Assets Under Development

The changes in the carrying value of Intangible Assets Under Development are given below:

(₹ Crore)

	As at 01/04/2023	Addition	Impairment/ (Reversal)	Disposal/ Adjustment	Capitalised	As at 31/03/2024
Intangible Assets under Development	19	100	-	(4)	(106)	9
	19	**100**	**-**	**(4)**	**(106)**	**9**

(₹ Crore)

	As at 01/04/2022	Addition	Impairment/ (Reversal)	Disposal/ Adjustment	Capitalised	As at 31/03/2023
Intangible Assets under Development	8	104	-	-	(93)	19
	8	**104**	**-**	**-**	**(93)**	**19**

(a) Intangible Assets Under Development comprise of various routine, non-routine and expansion projects spread over across the Company which relates to following segments:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Aluminium Upstream	7	8
Aluminium Downstream	2	1
Copper	-	-
Others - Not Allocable to segment	-	10
	9	**19**

(b) Intangible asset under development ageing schedule as at 31/03/2024 :

(₹ Crore)

Particulars	Amount in Intangible asset under development for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	5	4	-	-	9
Projects temporarily suspended	-	-	-	-	-
Total	**5**	**4**	**-**	**-**	**9**

Intangible asset under development ageing schedule as at 31/03/2023 :

(₹ Crore)

Particulars	Amount in Intangible asset under development for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	12	1	4	2	19
Projects temporarily suspended	-	-	-	-	-
Total	**12**	**1**	**4**	**2**	**19**

(c) There are no Intangible asset under development projects whose completion is overdue or has exceeded its cost compared to its original plan as at 31/03/2024.

Intangible asset under development completion schedule for projects, whose completion is overdue or has exceeded its cost compared to its original plan as at 31/03/2023 are given below:

(₹ Crore)

Particulars	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Project in Progress					
Strategic Projects	3	-	-	-	3
Environmental, Occupational Health and Safety Projects	-	-	-	-	-
Project temporarily suspended					
Strategic Projects	-	-	-	-	-
Environmental, Occupational Health and Safety Projects	-	-	-	-	-
Total	**3**	**-**	**-**	**-**	**3**

Notes

forming part of the Standalone Financial Statements

3G. Depreciation and Amortization Expenses

Property, Plant & Equipment

Depreciation is charged so as to write off the cost or value of assets, net off their residual values, over their estimated useful lives. Depreciation is recorded using the straight line basis. The estimated useful lives and residual values are reviewed at each year end, with the effect of any changes in estimate accounted for on a prospective basis. Each component of an item of property, plant and equipment with a cost that is significant in relation to the total cost of that item is depreciated separately if its useful life differs from the other components of the asset.

Depreciation commences when the assets are ready for their intended use. Depreciated assets and accumulated depreciation amounts are retained fully until they are removed/retired from active use.

Leasehold improvements are depreciated over the shorter of their useful life or the lease term, unless the entity expects to use the assets beyond the lease term.

The useful life of the items of Property, Plant and Equipment is based on the technical assessment by management for the current and comparative period which is in line with the useful life precribed in Schedule II of the Companies Act, 2013.

Right of Use assets

ROU assets are depreciated over the shorter period of the lease term and useful life of the underlying asset using straight line basis. If the Company is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life. The depreciation starts at the commencement date of the lease.

Investment Properties

Depreciation is charged on a straight line basis over their estimated useful lives.

Intangible Assets

Amortization is charged on a straight line basis over their estimated useful lives other than Mining rights. The estimated useful life and amortization method are reviewed at the end of each annual reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Mining rights

Exploitable mineral rights are amortised using the unit of production basis over the commercially recoverable reserves. Commercially recoverable reserves are proved and probable reserves. Mineral resources are included in amortization calculations where there is a high degree of confidence that they will be extracted in an economic manner. Changes in the commercial recoverable reserves affecting unit of production calculations are dealt with prospectively over the revised remaining reserves.

Amount of asset class-wise depreciation and amortizaztion are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Depreciation on Property, Plant and Equipment, Refer Note 3A	1,731	1,655
Depreciation on Right of Use Assets, Refer Note 3C	127	112
Depreciation on Investment Properties, Refer Note 3E	-	1
Amortization of Intangible Assets, Refer Note 3F	103	106
	1,961	**1,874**

3H. Impairment Loss/ (Reversal) on Non-Current Assets (Net)

Goodwill and intangible assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Non current assets other than goodwill are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash inflows which are largely independent of the cash inflows from other assets or groups of assets (cash- generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

Critical Accounting Judgment and Key Sources of Estimation Uncertainty

The Company assesses conditions that could cause an asset or a Cash Generating Unit (CGU) to become impaired and to test recoverability of potentially impaired assets. These conditions include changes resulting from market and economic environment, including internal and external factors such as the Company's market capitalization, significant changes in the Company's planned use of the assets or a significant adverse change in the expected prices, sales volumes or raw material cost. The identification of CGUs involves judgment, including assessment of where active markets exist, and the level of interdependency of cash inflows. CGU is usually the individual plant, unless the asset or asset group is an integral part of a value chain where no independent prices for the intermediate products exist, a group of plants is combined and managed to serve a common market, or where circumstances otherwise indicate significant interdependencies.

Determination of the recoverable amount involves management estimates on highly uncertain matters, such as commodity prices and their impact on markets and prices for upgraded products, demand for products, inflation, currency rate movements, input cost prices, operating expenses and tax and legal environment. The Company uses internal business plans, quoted market prices and the Company's best estimate of commodity prices, currency rates, discount rates and other relevant information. A detailed forecast is developed for a period of three to five years with projections thereafter.

The details of non-current assets class-wise impairment/(reversal) are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Impairment Loss/ (Reversal) on Capital Work in Progress (a)	-	65
Impairment Loss/ (Reversal) on of Asset Held for Sale (b)	-	(12)
	-	**53**

(a) During the previous year, the Company had Impaired certain plant and machinery, construction of which was suspended due to various environment and safety reasons amounting to ₹ 65 Crore.

(b) During the previous year, the Company had written back impairment loss on certain equipments and accessories that were impaired earlier on determination of its realizable value (Net of cost to sales) amounting to ₹ 12 Crore.

Notes

forming part of the Standalone Financial Statements

3I. Title deeds of the Immovable Properties pending for transfer as at 31/03/2024 are as follows:

(₹ Crore)

S. No.	Relevant line item in the Balance sheet	Description of item of property	Gross carrying value	Title deeds held in the name of	Whether title deed holder is a promoter, director or relative of promoter/director or employee of promoter/ director	Property held since which date	Reason for not being held in the name of the Company
1	Property, Plant and Equipment	Freehold Land at Birla Copper	-	Indogulf Fertilizer & Chemicals Corporation Limited	No	Since FY 2002-03	The title deeds of which are held in the name of Indogulf Fertilizer & Chemicals Corporation Limited (erstwhile Company) which have subsequently been amalgamated with the Company
2	Investment Property	Freehold Land at Birla Copper	-				
3	Investment Property	Building at Ahura Centre, Mumbai	7				
4	Property, Plant and Equipment	Freehold Land at Muri unit and Kolkata Branch	-	Indian Aluminium Company Limited	No	Since FY 2004-05	The title deeds of which are held in the name of Indian Aluminium Company Limited (erstwhile Company) which have subsequently been amalgamated with the Company
5	Property, Plant and Equipment	Various Buildings at Delhi, Bangalore, Kolkata, Darjeeling, Bhubaneshwar and Coimbatore	4				
6	Property, Plant and Equipment	Freehold Land at Kuppam	1	SAPA Extrusion India Private Limited	No	Since FY 2021-22	The title deeds are held in the name of the SAPA Extrusion India Private Limited (erstwhile Company) which have subsequently been acquired by the Company. The Company is in process of registering the title deed of this land in its name.
7	Property, Plant and Equipment	Freehold Land at Mahan	4	Various Individual Landowners	No	Since FY 2013-14	Certain original land-related documents held in the name of original landowners were submitted to the bank that had financed the Mahan project. These original documents are required to be submitted to the land department in order to get the title deed registered in the name of the Company. The Company is awaiting receipt of these original land-related documents from the bank to initiate the process of transfer of the title of the land in favour of the Company.
8	Property, Plant and Equipment	Freehold Land at Kathotia Mines	27	Various Individual Landowners	No	Since FY 2018-19	Approval of the District collector is awaited which is a prerequisite as per the Chota Nagpur Tenancy Act, 1908 to transfer the title deed in the name of the Company. The Company is in the process of obtaining these approvals.

Title deeds of the Immovable Properties pending for transfer as at 31/03/2023 are as follows:

(₹ Crore)

S. No.	Relevant line item in the Balance sheet	Description of item of property	Gross carrying value	Title deeds held in the name of	Whether title deed holder is a promoter, director or relative of promoter/director or employee of promoter/ director	Property held since which date	Reason for not being held in the name of the Company
1	Property, Plant and Equipment	Freehold Land at Birla Copper	-	Indogulf Fertilizer & Chemicals Corporation Limited	No	Since FY 2002-03	The title deeds of which are held in the name of Indogulf Fertilizer & Chemicals Corporation Limited (erstwhile Company) which have subsequently been amalgamated with the Company
2	Investment Property	Freehold Land at Birla Copper	-				
3	Investment Property	Building at Ahura Centre, Mumbai	7				
4	Property, Plant and Equipment	Freehold Land at Muri unit and Kolkata Branch	-	Indian Aluminium Company Limited	No	Since FY 2004-05	The title deeds of which are held in the name of Indian Aluminium Company Limited (erstwhile Company) which have subsequently been amalgamated with the Company
5	Property, Plant and Equipment	Various Buildings at Delhi, Bangalore, Kolkata, Darjeeling, Bhubaneshwar and Coimbatore	5				
6	Right of use Assets	Land at Kolkata Branch	-				
7	Property, Plant and Equipment	Freehold Land at Kuppam	1	SAPA Extrusion India Private Limited	No	Since FY 2021-22	The title deeds are held in the name of the SAPA Extrusion India Private Limited (erstwhile Company) which have subsequently been acquired by the Company. The Company is in process of registering the title deed of this land in its name.
8	Property, Plant and Equipment	Freehold Land at Mahan	4	Various Individual Landowners	No	Since FY 2013-14	Certain original land-related documents held in the name of original landowners were submitted to the bank that had financed the Mahan project. These original documents are required to be submitted to the land department in order to get the title deed registered in the name of the Company . The Company is awaiting receipt of these original land-related documents from the bank to initiate the process of transfer of the title of the land in favour of the Company.
9	Property, Plant and Equipment	Freehold Land at Kathotia Mines	27	Various Individual Landowners	No	Since FY 2018-19	Approval of the District collector is awaited which is a prerequisite as per the Chota Nagpur Tenancy Act, 1908 to transfer the title deed in the name of the Company. The Company is in the process of obtaining these approvals.

Notes

forming part of the Standalone Financial Statements

4. Goodwill

Goodwill arising on acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any. For the purpose of impairment testing, goodwill is allocated to each of the cash-generating units expected to benefit from the synergies of the combination.Cash-generating units to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognised for goodwill is not reversed in a subsequent period.

The changes in the carrying vaue of Goodwill are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Cost	4	4
Less: Accumulated Impairment	-	-
Net Carrying amount	**4**	**4**

(i) Goodwill had generated on acquisition of extrusion business of SAPA Extrusion India Pvt. Ltd. (Unit located at Kuppam) during the year ended 31/03/2022. The Company tested the goodwill for impairment by applying "fair value less cost to sell method" as at 31/03/2024 and no impairment has been identified.

5. Financial Assets

All financial assets are recognised on trade date when the purchase of a financial asset is under a contract whose term requires delivery of the financial asset within the timeframe established by the market concerned. Financial assets are initially measured at fair value, plus transaction costs, except for those financial assets which are classified as at fair value through profit or loss (FVTPL) at inception. All recognised financial assets are subsequently measured in their entirety at either amortised cost or fair value.

Classification of financial assets

Financial assets are classified as 'equity instrument' if these are non-derivative and meets the definition of 'equity' for the issuer. All other non-derivative financial assets are 'debt instruments'.

Initial recognition and subsequent measurement

Financial assets at amortised cost

The Company measures debt instrument at amortised cost if both of the following conditions are met:

1) the asset is held within a business model whose objective is to hold asset in order to collect contractual cash flows; and

2) the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instrument meeting these criteria are subsequently measured at amortised cost using the effective interest method less any impairment, with interest recognised on an effective yield basis in other income.

Financial assets classified at amortised cost comprises of trade receivables, loans, deposits, matured derivatives pending realisation, accrued interest and other receivables.

Financial assets at fair value through other comprehensive income (FVTOCI).

A) Equity instrument

At initial recognition, an irrevocable election is made (on an instrument-by-instrument basis) to designate investments in equity instruments (other than held for trading purpose) at FVTOCI.

An Investment is held for trading if:

1) it has been acquired principally for the purpose of selling it in the near term; or

2) on initial recognition it is part of a portfolio of identified financial instruments that the Company manages together and has evidence of a recent actual pattern of short-term profit-taking; or

3) it is a derivative that is not designated in an effective hedge relationship as a hedging instrument or a financial guarantee.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI'. Where the asset is disposed of, the cumulative gain or loss previously accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI' is directly reclassified to retained earnings.

B) Debt instrument

Debt instrument are measured at FVTOCI if both of the following conditions are met:

1) Debt Instrument is held within a business model whose objective is to hold asset in order to collect contractual cash flows and selling assets; and

2) the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Investment meeting these criteria are subsequently measured at fair value with any gains or losses arising on re-measurement recognised in other comprehensive income, except for impairment gains or losses, interest income and foreign exchange gains or losses which are recognised in the consolidated statement of profit and loss. Interest calculated using the effective interest method is recognised in the statement of profit and loss as Other income. When the debt instrument is derecognised the cumulative gain or loss previously recognised in other comprehensive income is reclassified to the statement of profit and loss as a reclassification adjustment.

Financial assets at fair value through profit and loss (FVTPL)

Financial assets that do not meet the criteria of classifying as amortised cost or fair value through other comprehensive income described above, or that meet the criteria but the entity has chosen to designate as at FVTPL at initial recognition, are measured at FVTPL.

Investments in equity instruments are classified as at FVTPL, unless the Company designates an investment that is not held for trading at FVTOCI at initial recognition.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on re-measurement recognised in the statement of profit and loss. Interest income from these investment is included in Other income.

Impairment of financial assets

On initial recognition of the financial assets, a loss allowance for expected credit loss is recognised for debt instruments carried at amortised cost and FVTOCI. For debt instruments that are measured at FVTOCI, the loss allowance is recognised in the statement of profit and loss.

Expected credit losses of a financial instrument is measured in a way that reflects:

1) an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;

2) the time value of money; and

Notes

forming part of the Standalone Financial Statements

3) reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

At each reporting date, the Company assesses whether the credit risk on a financial instrument has increased significantly since initial recognition.

When making the assessment, the Company compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort, that is indicative of significant increases in credit risk since initial recognition.

If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If, the credit risk on that financial instrument has increased significantly since initial recognition, the Company measures the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses.

The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date is recognised as an impairment loss or gain in the statement of profit and loss.

De-recognition of financial assets

The Company derecognises financial assets on trade date only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial assets and substantially all the risks and rewards of ownership to another entity or when it retains contractual rights to retain contractual cash flows from asset, but assumes a contractual obligation to pay the cash flows to one or more recipient. If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the financial assets, the Company recognises its retained interest in the financial assets and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognise financial assets and also recognises a collateralised borrowing for the proceeds received.

On de-recognition of a financial assets other than in its entirety (e.g. when the Company retains an option to repurchase part of a transferred assets), the Company allocates the previous carrying amount of the financial assets between the part it continues to recognise under continuing involvement, and the part it no longer recognises on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognised and the sum of the consideration received for the part no longer recognised and any cumulative gain or loss allocated to it that had been recognised in other comprehensive income is recognised in the statement of profit and loss. A cumulative gain or loss that had been recognised in other comprehensive income is allocated between the part that continues to be recognised and the part that is no longer recognised on the basis of the relative fair values of those parts.

Investment in Subsidiaries and Joint Ventures

The investments in subsidiaries and joint ventures are carried in the financial statements at historical cost except when the investment, or a portion thereof, is classified as held for sale, in which case measured at lower of carrying amount and fair value less costs to sell. When the Company is committed to a sale plan involving disposal of an investment, or a portion of an investment, in any subsidiary or joint venture, the investment or the portion of the investment that will be disposed of is classified as held for sale when the criteria described above are met. Any retained portion of an investment in a subsidiary or a joint venture that has not been classified as held for sale continues to be accounted for at historical cost.

Investments in subsidiaries and joint ventures carried at cost are tested for impairment in accordance with Ind AS 36 Impairment of Assets. The carrying amount of the investment is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount, any impairment loss recognised reduces the carrying amount of the investment.

Investment in Associates

The investments in associates are carried in these financial statements at fair Value through Other Comprehensive Income (FVTOCI).

5A. Investment in Subsidiaries

(₹ Crore)

	Face Value Per Unit*	Numbers as at 31/03/2024	Numbers as at 31/03/2023	Amount as at 31/03/2024	Amount as at 31/03/2023
Investment in Equity Shares at Cost - (a) and (d)					
Unquoted					
A V Minerals (Netherlands) N.V.	€ 499.04	2,376,838	2,376,838	9,155	9,155
Dahej Harbour & Infrastructure Limited	₹ 10	50,000,000	50,000,000	50	50
East Coast Bauxite Mining Company Pvt Limited	₹ 10	7,400	7,400	-	-
Hindalco Almex Aerospace Limited	₹ 5	172,115,744	172,115,744	83	83
Lucknow Finance Company Limited	₹ 10	9,902,500	9,902,500	10	10
Minerals & Minerals Limited	₹ 10	50,000	50,000	-	-
Renuka Investments & Finance Limited	₹ 10	34,250,000	34,250,000	34	34
Renukeshwar Investments & Finance Limited	₹ 10	4,795,000	4,795,000	5	5
Suvas Holdings Limited	₹ 10	22,149,714	22,149,714	22	22
Utkal Alumina International Limited	₹ 10	6,251,482,818	6,251,482,818	6,362	6,362
Hindalco Kabushiki Kaisha - Japan - (c)	JPY 10,000	4,167	3,000	3	2
Kosala Livelihood and Social Foundation - (c)	₹ 10	7,000,000	4,000,000	7	4
				15,731	**15,727**
Other Equity Investment - (b)					
(Fair Value of Financial Guarantee given for)					
Utkal Alumina International Limited				75	75
A V Minerals (Netherlands) N.V.				3	3
				78	**78**
				15,809	**15,805**

*Fully paid-up unless otherwise stated

(a) None of the subsidiaries are listed on any stock exchange in India or outside India and these investments are carried at cost. There is no accumulated impairment as at current or previous year end.

(b) Financial guarantees given to subsidiaries were initially recognised at fair value and continue to be accounted as Other Equity Investment until the investment in subsidiaries are derecognised or impaired.

(c) During the current year, the Company has made additional investment in its wholly owned subsidiaries Hindalco Kabushiki Kaisha - Japan and Kosala Livelihood and Social Foundation.

(d) Refer Note 30 Related Party Disclosure for information on principal place of business of the above Subsidiaries.

Notes

forming part of the Standalone Financial Statements

5B. Investment in Associates and Joint Ventures

(₹ Crore)

		Face Value Per Unit*	Numbers as at		Amount as at	
			31/03/2024	31/03/2023	31/03/2024	31/03/2023
(a)	**Investments in Associates**					
	Investment in Equity Shares at FVTOCI - (i) and (iv)					
	Unquoted					
	Aditya Birla Science and Technology Company Private Limited	₹ 10	9,800,000	9,800,000	84	110
	Aditya Birla Renewables Subsidiary Limited	₹ 10	6,895,200	6,895,200	7	7
	Ayana Renewable Power Four Private Limited (ii)	₹ 10	8,125,000	-	8	-
	Aditya Birla Renewables Solar Limited	₹ 10	41,210,426	24,084,015	44	68
	Total (a)				**143**	**185**
(b)	**Investments in Joint Ventures**					
	Investment in Equity Shares at Cost - (i) and (iii)					
	Unquoted					
	MNH Shakti Limited	₹ 10	5,265,000	5,265,000	5	5
	Hydromine Global Minerals GMBH Limited (iii)	$ 100	66,562	66,562	-	-
	Total (b)				**5**	**5**
	Investment in Associates and Joint Ventures (a+b)				**148**	**190**
	*Fully paid-up unless otherwise stated					
(i)	Aggregate cost of investments is given below:					
	Unquoted investments in Associates				69	42
	Unquoted investments in Joint Ventures				38	38
	Impairment on unquoted investments in a Joint Venture				(33)	(33)

(ii) During the current year, the Company has invested in new Associate, Ayana Renewable Power Four Private Limited, for setting up captive power plant. For further details Refer Note 31B(c).

(iii) During the previous year, the Company had impaired the value of its investment in Joint Venture, Hydromine Global Minerals GMBH Limited, amounting to ₹ 1 Crore.

(iv) Refer Note 30 Related Party Disclosure for information on principal place of business of the above Associates and Joint Ventures.

5C Other Investments, Non-Current

(₹ Crore)

		Face Value Per Unit*	Numbers as at		Amount as at	
			31/03/2024	31/03/2023	31/03/2024	31/03/2023
(a)	**Equity instruments at FVTOCI**					
	Quoted					
	Grasim Industries Limited	₹ 2	28,222,468	28,222,468	6,455	4,607
	Grasim Industries Limited (Partly Paid up ₹ 0.50 per Share)	₹ 2	946,004	-	97	-
	Ultra Tech Cement Limited	₹ 10	1,258,515	1,258,515	1,227	959
	Aditya Birla Fashion & Retail Limited	₹ 10	50,239,794	50,239,794	1,033	1,077
	Vodafone Idea Limited	₹ 10	751,119,164	751,119,164	995	436
	Aditya Birla Capital Limited	₹ 10	39,511,455	39,511,455	693	607
					10,500	**7,686**
	Unquoted					
	Sai Wardha Power Generation Limited	₹ 10	2,830,352	2,830,352	-	-
	Birla International Limited	CHF 100	2,500	2,500	4	6
	Woodlands Multi Speciality Hospital Limited	₹ 10	7,200	7,200	-	-
	Bharuch Dahej Railway Company Limited	₹ 10	13,530,000	13,530,000	22	19
					26	**25**
	Total (a)				**10,526**	**7,711**
(b)	**Debt Instruments at FVTOCI**					
	Quoted					
	Government Securities					
	6.83% Government of India Bond, 2039		2,000,000	2,000,000	20	19
	6.57% Government of India Bond, 2033		5,000,000	5,000,000	48	47
	6.45% Government of India Bond, 2029		5,000,000	5,000,000	49	48
	5.79% Government of India Bond, 2030		10,000,000	10,000,000	94	93
	6.19% Government of India Bond, 2034		10,000,000	10,000,000	93	91
	Total (b)				**304**	**298**
	Other Investments (a+b)				**10,830**	**8,009**
	*Fully paid-up unless otherwise stated					
(i)	Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted Investments are given below:					
	Aggregate Cost of Quoted Investments				1,527	1,484
	Aggregate Market value of Quoted Investments				10,804	7,984
	Aggregate Cost of Unquoted Investments				17	17
	Aggregate amount of impairment in value of investments				3	3
	Aggregate Carrying value of Quoted and Unquoted Investments				10,830	8,009

(ii) Investments in Government Securities include fair value ₹ 24 Crore (cost ₹ 26 Crore) {as at 31/03/2023 fair value ₹ 24 Crore (cost ₹ 26 Crore)} given as margin money with counter parties for derivative transactions.

Notes

forming part of the Standalone Financial Statements

5D. Other Investments, Current

(₹ Crore)

	As at 31/03/2024	As at 31/03/2023
Quoted		
Investments in Government securities at FVTOCI	5	5
Investments in Commercial Paper at FVTPL	199	97
Investment in Debentures and Bonds at FVTPL	350	130
Investments in Certificate of Deposits - FVTPL	1,137	-
Investments in Mutual Funds at FVTPL - (b)	1,257	5,530
	2,948	**5,762**

(a) Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted Investments are given below:

Aggregate Cost of Quoted Investments	2,844	5,641
Aggregate Market value of Quoted Investments	2,948	5,762
Aggregate Cost of Unquoted Investments	-	-
Aggregate amount of impairment in value of investments	-	-
Aggregate Carrying value of Quoted and Unquoted Investments	2,948	5,762

(b) Investments in Debt Schemes of Mutual Funds include fair value ₹ 363 Crore (cost ₹ 313 Crore) {as at 31/03/2023 fair value ₹ 338 Crore (cost ₹ 313 Crore)} given as margin money with counter parties for derivative transactions.

5E. Loans

(Unsecured, Considered Good unless otherwise stated)

Loans given by the Company are financial assets and are initially recognised based on the business model for managing the financial asset and the contractual cash flow characteristics of the loan. They are measured at FVTPL unless it is not measured at amortised cost or FVTOCI.

The Company measures loans at amortised cost since:

1) the asset is held within a business model whose objective is to hold asset in order to collect contractual cash flows; and

2) the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

These loans are subsequently measured at amortised cost using the Effective Interest Rate (EIR) method.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance income in the Standalone Statement of Profit and Loss.

The details of amount outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Loan to Related Parties - (a), (b) and (c)	103	25	169	-
Loan to Employees	4	5	5	5
	107	**30**	**174**	**5**

(a) There are no loans or advances in the nature of loans granted to promoters, directors, Key Managerial Persons and the related parties, that are repayable on demand as on 31/03/2024 and 31/03/2023.

(b) Disclosure relating to amount outstanding at year end and maximum outstanding during the year of loans and advances, in nature of loan required under schedule V of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 and details of such loans given and guarantee given covered under section 186(4) of the Companies Act, 2013 are given below:

(₹ Crore)

Name of the Company	Relationship	Nature of Transaction	Purpose / Utilisation	Outstanding balance as at 31/03/2024	Outstanding balance as at 31/03/2023	Maximum outstanding during the year ended on 31/03/2024	Maximum outstanding during the year ended on 31/03/2023
Details of Loans							
Aditya Birla Science and Technology Company Private Limited	Associate	Loan	Working capital Use	24	29	29	36
Suvas Holding Limited	Subsidiary	Loan	Working capital Use	2	3	3	5
Birla Copper Asoj Private Limited (formerly known as Ryker Base Private Limited)	Subsidiary	Loan	Prepayment of Loan and Working capital Use	102	137	137	164
Details of Guarantee							
Dahej Harbour and Infrastructure Limited	Subsidiary	Performance Guarantee	To the Commissioner of Customs	5	5	NA	NA

(c) Refer Note 30 for balances with related parties.

5F. Derivatives & Hedge Accounting

The Company uses derivative financial instruments such as forwards, futures, options etc. to hedge its risks associated with foreign exchange fluctuation and price risk movements. Risks associated with fluctuation in the price of the products (copper, aluminium, coal, furnace oil, natural gas, coal tar pitch and precious metals) are minimized by undertaking appropriate derivative instruments.

The Company also identifies embedded derivatives in certain transactions. Derivatives embedded in other contracts are treated as separate derivatives when their risks and characteristics are not closely related to their host contracts. In some cases, the embedded derivatives may be designated in a hedge relationship. The fair values of all such derivative financial instruments are recognized as assets or liabilities at the balance sheet date. Embedded derivatives closely related to the host contracts are not separated. Derivatives embedded in a host contract that is an asset within the scope of Ind AS 109 are not separated. Derivatives embedded in all other host contract are separated only if the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host and are measured at fair value through profit or loss. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest. These derivatives are designated into a hedge relationship if they meet hedge accounting criteria.

The full fair value of a hedging derivative is classified as a non-current asset or liability when the residual maturity of the derivative is more than 12 months and as a current asset or liability when the residual maturity of the derivative is less than 12 months as at the end of reporting period.

Notes

forming part of the Standalone Financial Statements

Fair value measurement of derivatives

Fair value of financial derivatives is estimated as the present value of future cash flows, calculated by reference to quoted price curves and exchange rates as of the balance sheet date whereas options are valued using appropriate option pricing models by the Company. For valuation of options, credit spreads are applied where deemed to be significant.

Fair value measurement of embedded derivatives

The Company values embedded derivatives that are separated from the host contract by comparing the forward curve at contract inception to the forward curve as of the balance sheet date. Changes in the present value of the cash flows related to the embedded derivative are recognized in the consolidated balance sheet and in the consolidated statement of profit and loss.

The Company designates commodity hedges of Copper, Gold and Silver at the fair value of recognised assets (or liabilities or a firm commitment) under fair value hedge. Currency hedges and Commodity hedge of Aluminium business are designated based on a particular risk associated with the cash flow of recognised assets (or liabilities or a highly probable forecast transaction) under cash flow hedge.

The Company also applies hedge accounting using certain foreign currency non-derivative monetary items which are used as hedging instruments for hedging foreign exchange risk.

The Company documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Company also documents the nature of the risk being hedged and how the Company will assess whether the hedging relationship meets the hedge effectiveness requirements (including its analysis of the sources of hedge ineffectiveness and how it determines the hedge ratio).

Change in Fair value of derivatives that are not designated in any hedge relationship as mentioned above are accounted through the Statement of Profit and Loss at each reporting date.

Fair value hedge

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the statement of profit and loss, together with any changes in the fair value of the hedged item that are attributable to the hedged risk.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortised to the statement of profit and loss from that date except for inventory that is charged to statement of profit and loss on sale of goods.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated under the heading cash flow hedging reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in the statement of profit and loss, and is included in the '(Gain) / Loss in Fair Value of Derivatives' line item.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to the statement of profit and loss in the periods when the hedged item affects the statement of profit and loss, in the same line as the recognised hedged item. However, when the hedged forecast transaction results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously recognised in other comprehensive income and accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability as a basis adjustment.

If the hedge ratio for risk management purposes in no longer optimal but the risk management objective remains unchanged and the hedge continues to qualify for hedge accounting, the hedge relationship will be rebalanced by adjusting either the volume of the hedging instrument or the volume of the hedged item so that the hedge ratio aligns with the ratio used for risk management purposes. Any hedge ineffectiveness is calculated and accounted for in the statement of profit and loss at the time of the hedge relationship rebalancing.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. Any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the statement of profit and loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in the statement of profit and loss.

(a) The asset and liability position of various outstanding derivative financial instruments is given below:

(₹ Crore)

Particulars	Nature of Risk being Hedged	As at 31/03/2024			As at 31/03/2023		
		Liability	Asset	Net fair value	Liability	Asset	Net fair value
Current							
Cash flow hedges							
Commodity contracts	Price Risk	(27)	2	(25)	(1)	303	302
Foreign currency contracts	Exchange rate movement risk	(6)	138	132	(33)	59	26
Fair value hedge							
Commodity contracts	Price Risk	(288)	13	(275)	(197)	-	(197)
Foreign currency contracts	Exchange rate movement risk	(1)	4	3	(5)	1	(4)
Non-designated hedges							
Commodity contracts	Price Risk	(6)	288	282	(66)	253	187
Foreign currency contracts	Exchange rate movement risk	(16)	-	(16)	(3)	15	12
Total		**(344)**	**445**	**101**	**(305)**	**631**	**326**
Offsetting*		191	(191)	-	115	(115)	-
Total (A)		**(153)**	**254**	**101**	**(190)**	**516**	**326**
Non - current							
Cash flow hedges							
Commodity contracts	Price Risk	-	-	-	-	21	21
Foreign currency contracts	Exchange rate movement risk	-	81	81	(6)	99	93
Non-designated hedges							
Foreign currency contracts	Exchange rate movement risk	-	-	-	(1)	3	2
Total		**-**	**81**	**81**	**(7)**	**123**	**116**
Offsetting *		**-**	**-**	**-**	**3**	**(3)**	**-**
Total (B)		**-**	**81**	**81**	**(4)**	**120**	**116**
Current							
Fair value hedge							
Embedded derivatives[(i)]	Risk of change in Fair Value of unpriced inventory	(568)	5	(563)	(428)	23	(405)
Total (C)		**(568)**	**5**	**(563)**	**(428)**	**23**	**(405)**
Grand total (A+B+C)		**(721)**	**340**	**(381)**	**(622)**	**659**	**37**

(i) Fair value net loss of embedded derivatives of ₹ 563 Crore (31/03/2023 net Loss ₹ 405 Crore) is classified as part of Trade Payables.

The maturity profile for commodity forwards, future and options ranges from April 2024 to April 2025, foreign exchange forwards ranges from April 2024 to March 2027. Hedge Ratio of 1:1 is used by the Company.

* Financial instruments are subject to offsetting, enforceable master netting arrangement and similar arrangements. Refer Note 35 for further details.

Notes

forming part of the Standalone Financial Statements

(b) Outstanding position and fair value of various foreign exchange derivative financial instruments:

Particulars	Currency Pair	As at 31/03/2024			As at 31/03/2023		
		Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (Loss) (₹ Crore)	Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (Loss) (₹ Crore)
Currency options							
Cash flow hedges							
Sell	USD_INR	-	-	-	84.00	204	6
Currency forwards							
Cash flow hedges							
Sell	USD_INR	86.62	1,149	213	86.87	1,066	113
Buy	CAD_INR	61.38	-	-	-	-	-
Buy	EUR_INR	90.88	19	-	-	-	-
Buy	GBP_INR	105.39	1	-	-	-	-
Total				**213**			**119**
Fair value hedges							
Buy	USD_INR	83.30	180	3	82.64	181	(4)
Total				**3**			**(4)**
Non-designated							
Buy	EUR_INR	-	-	-	-	-	-
Buy	USD_INR	83.40	12	-	82.19	31	-
Sell	USD_INR	83.31	306	(4)	82.59	215	6
Buy	CNY_USD	-	-	-	6.80	10	-
Buy	EUR_USD	1.10	72	(11)	1.08	56	8
Buy	CAD_USD	0.75	2.90	(1)	-	-	-
Buy	CNY_INR	11.56	10.21	-	-	-	-
Total				**(16)**			**14**
Grand total				**200**			**129**

(c) Outstanding position and fair value of various foreign exchange non-derivative financial instruments used as hedging instruments:

Particulars	Note No	Currency pair	As at 31/03/2024			As at 31/03/2023		
			Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)	Weighted average strike rate	Notional value in foreign currency (in Million)	Fair value gain/ (loss) (₹ Crore)
Foreign currency monetary items								
Cash flow hedges								
Debt	12B	USD_INR	82.87	61	(3)	-	-	-
Liability for copper concentrate								
Host liability		USD_INR	82.98	435	(17)	82.39	519	12
Supplier's credit	12D	USD_INR	83.11	380	(10)	81.80	560	(20)
Total					**(30)**			**(8)**

(d) Outstanding position and fair value of various commodity derivative financial instruments:

(i) Outstanding position and fair value of various commodity derivative financial instruments as at 31/03/2024:

Particulars		Currency	Weighted average strike rate	Quantity	Unit	Notional value (in millions)	Fair value gain/ (loss) (₹ Crore)
Commodity futures/forwards/swaps/options							
Cash flow hedge							
Aluminium - Forwards	Sell	USD	2,481	2,425	MT	6	2
Aluminium - Collar options	Sell	USD	2,354	130,000	MT	306	(27)
Total							**(25)**
Fair value hedge							
Copper	Sell	USD	8,952	13,350	MT	120	12
Gold	Sell	INR	6,329,203	6,567	KGS	41,564	(287)
Silver	Sell	USD	25	120,809	TOZ	3	-
Total							**(275)**
Non designated hedges							
Aluminium	Buy	USD	2,244	27,775	MT	62	14
Aluminium	Sell	USD	2,627	27,775	MT	73	74
Copper	Buy	USD	8,623	2,075	MT	18	3
Copper	Sell	USD	8,864	6,875	MT	61	4
Gold	Buy	INR	6,325,848	4,249	KGS	26,879	188
Silver	Buy	USD	25	241,473	TOZ	6	1
Silver	Sell	USD	23	241,473	TOZ	6	(5)
Furnace Oil	Buy	USD	375	4,333	MT	2	3
Furnace Oil	Sell	USD	447	4,333	MT	2	-
Total							**282**
Embedded derivatives							
Fair value hedge							
Copper	Sell	USD	8,385	122,053	MT	1,023	(441)
Gold	Sell	USD	2,050	69,220	KGS	142	(111)
Silver	Sell	USD	23	680,644	TOZ	16	(11)
Total							**(563)**
Grand total							**(581)**

Notes

forming part of the Standalone Financial Statements

(ii) Outstanding position and fair value of various commodity derivative financial instruments as at 31/03/2023:

Particulars		Currency	Weighted average strike rate	Quantity	Unit	Notional value (in millions)	Fair value gain/ (loss) (₹ Crore)
Commodity futures/forwards/swaps							
Cash flow hedge							
Aluminium - Forwards	Sell	USD	2,859	102,475	MT	293	319
Furnace Oil - Swaps	Buy	USD	375	52,000	MT	19	4
Total							**323**
Fair value hedge							
Copper	Sell	USD	8,333	10,700	MT	89	(57)
Gold	Sell	INR	5,630,292	4,425	KGS	24,914	(140)
Silver	Sell	USD	-	-	-	-	-
Total							**(197)**
Non-designated hedges							
Aluminium	Buy	USD	2,298	47,300	MT	109	29
Aluminium	Sell	USD	2,501	47,300	MT	118	49
Copper	Buy	USD	8,601	12,225	MT	105	39
Copper	Sell	USD	8,854	14,275	MT	126	(16)
Gold	Buy	INR	5,693,633	3,028	KGS	17,240	75
Silver	Buy	USD	22	909,754	TOZ	20	13
Silver	Sell	USD	24	514,516	TOZ	12	(2)
Total							**187**
Embedded derivatives							
Fair value hedge							
Copper	Sell	USD	8,705	130,979	MT	1,140	(300)
Gold	Sell	USD	1,857	98,953	KGS	184	(98)
Silver	Sell	USD	22	399,859	TOZ	9	(6)
Total							**(405)**
Grand Total							**(92)**

(e) The following table presents details of amount held in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and the period during which these are going to be released and affecting Statement of Profit and Loss.

(₹ Crore)

Effective portion of cash flow hedges	Products/ Currency pair	As at 31/03/2024			As at 31/03/2023		
		Closing value cash flow hedges	Release		Closing value cash flow hedges	Release	
			Within 12 months	After 12 months		Within 12 months	After 12 months
		Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)
Hedge instrument type							
Commodity forwards/futures/ swaps	Aluminium	2	2	-	316	316	-
	Copper	-	-	-	-	-	-
	Furnace oil	-	-	-	5	5	-
		2	**2**	**-**	**321**	**321**	**-**
Non-derivative financial instruments							
Debt	USD_INR	(3)	(3)	-	-	-	-
Liability for copper concentrate							
Host liability	USD_INR	(17)	(17)	-	(5)	(5)	-
Supplier's credit	USD_INR	(10)	(10)	-	(3)	(3)	-
Currency forwards	USD_INR	213	132	81	112	20	92
	EUR_INR	-	-	-	-	-	-
Currency options	USD_INR	-	-	-	(1)	(1)	-
		183	**102**	**81**	**103**	**11**	**92**
Total		**185**	**104**	**81**	**424**	**332**	**92**
Deferred tax on above		(65)	(37)	(28)	(148)	(116)	(32)
Total		**120**	**67**	**53**	**276**	**216**	**60**

(₹ Crore)

Cost of hedging reserve	Products/ Currency pair	As at 31/03/2024			As at 31/03/2023		
		Closing value cost of hedge reserve	Release		Closing value cost of hedge reserve	Release	
			Within 12 months	After 12 months		Within 12 months	After 12 months
		Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)
Hedge instrument type							
Commodity forwards/swaps/ options	Copper	(6)	(6)	-	(4)	(4)	-
	Aluminium	(27)	(27)	-	-	-	-
Currency options							
Currency options	USD_INR	-	-	-	8	8	-
		(33)	**(33)**	**-**	**4**	**4**	**-**
Deferred tax on above		13	13	-	(1)	(1)	-
Total		**(20)**	**(20)**	**-**	**3**	**3**	**-**

Notes

forming part of the Standalone Financial Statements

(f) Gain/(loss) recognized in OCI, recycled and closing position:

(i) The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and recycled for the financial year ended 31/03/2024 along with closing amount in hedging reserve:

(₹ Crore)

Effective portion of cash flow hedges	Opening balance	Net amount recognised	Recycled			Closing balance
			Net amount to P&L	Net amount added to non-financial assets	Total amount recycled	
Commodity	321	308	604	23	627	2
Forex	103	(26)	(106)	-	(106)	183
Total	**424**	**282**	**498**	**23**	**521**	**185**
Deferred tax on above	(148)	(98)	(173)	(8)	(181)	(65)
Total	**276**	**184**	**325**	**15**	**340**	**120**

(₹ Crore)

Cost of hedging reserve	Opening balance	Netamount recognised	Recycled			Closing balance
			Netamount to P&L	Net amount added to non-financial assets	Totalamount recycled	
Commodity	(4)	(36)	(7)	-	(7)	(33)
Forex	8	(8)	-	-	-	-
Total	**4**	**(44)**	**(7)**	**-**	**(7)**	**(33)**
Deferred tax on above	(1)	16	2	-	2	13
Total	**3**	**(28)**	**(5)**	**-**	**(5)**	**(20)**

(ii) The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and recycled for the financial year ended 31/03/2023 along with closing amount in hedging reserve:

(₹ Crore)

Effective portion of cash flow hedges	Opening balance	Net amount recognised	Recycled			Closing balance
			Netamount to P&L	Net amount added to non-financial assets	Total amount recycled	
Commodity	(3,132)	3,493	40	-	40	321
Forex	286	(847)	(664)	-	(664)	103
Total	**(2,846)**	**2,646**	**(624)**	**-**	**(624)**	**424**
Deferred tax on above	995	(925)	218	-	218	(148)
Total	**(1,851)**	**1,721**	**(406)**	**-**	**(406)**	**276**

(₹ Crore)

Cost of hedging reserve	Opening balance	Netamount recognised	Recycled			Closing balance
			Netamount to P&L	Net amount added to non-financial assets	Totalamount recycled	
Commodity	(60)	(71)	(127)	-	(127)	(4)
Forex	-	8	-	-	-	8
Total	**(60)**	**(63)**	**(127)**	**-**	**(127)**	**4**
Deferred tax on above	21	22	44	-	44	(1)
Total	**(39)**	**(41)**	**(83)**	**-**	**(83)**	**3**

(g) The following table presents the amount of gain/ (loss) recycled from effective portion of cash flow hedge and cost of hedging reserve and reference of the line item in the statement of profit and loss where those amounts are included:

(₹ Crore)

Note no.	Note description	Particulars	Year ended 31/03/2024	Year ended 31/03/2023
17	Revenue From Operations	Commodity	604	40
17	Revenue From Operations	Forex	(106)	(664)
24	Other Expenses	Commodity	(8)	(127)
			490	**(751)**

(h) The following table presents the amount of gain/ (loss) recycled from effective portion of cash flow hedge to non-financial asset and reference of the line item in the balance sheet where those amounts are included:

(₹ Crore)

Note No.	Note Description	Particulars	Year Ended 31/03/2024	Year Ended 31/03/2023
8B	Inventory	Furnace oil	24	-
			24	**-**

(i) The adjustment as a part of the carrying value of inventories arising on account of fair value hedges is as follows:

Increase/ (Decrease) in Inventory Value

(₹ Crore)

Inventory Type	As at 31/03/2024			As at 31/03/2023		
	Raw Material	WIP and Finished Goods	Total	Raw Material	WIP and Finished Goods	Total
Copper	441	-	441	300	3	303
Gold	111	44	155	98	29	127
Silver	11	-	11	7	-	7
Total	**563**	**44**	**607**	**405**	**32**	**437**

(j) The Company's hedging policy allows for effective hedge relationships to be established. The effective portion of hedge is recognised in OCI, while ineffective portion of hedge is recognised immediately in the statement of profit and loss. For cash flow hedges, the Company uses hypothetical derivative method to assess effectiveness based on "lower off" assessment.

Sources of Hedge ineffectiveness summarised by risk category are as follows :

Risk category	Sources of hedge ineffectiveness	Type of hedge
Price risk	Critical terms mismatch	Cash flow and fair value hedge
	Basis risk	Fair value hedge
	Credit risk adjustment	Cash flow and fair value hedge
Exchange risk	Credit risk adjustment	Cash flow hedge

(k) The amount of gain/ (loss) recognised in the statement of profit and loss on account of hedge ineffectiveness is as follows:

(₹ Crore)

Note no.	Note description	Particulars	Type of hedge	Year ended 31/03/2024	Year ended 31/03/2023
24	Other expenses	Gain/(Loss) on derivatives	Cash flow hedges	10	39
24	Other expenses	Gain/(Loss) on derivatives	Fair value hedges	(266)	(261)
				(256)	**(222)**

(l) Certain hedges of forecast sale transaction for hedging currency risk were discontinued during the current and previous year since the hedged forecast transaction was not expected to occur.

Notes

forming part of the Standalone Financial Statements

5G. Other Financial Assets

(Unsecured, Considered Good unless otherwise stated)

The amount outstanding at the reporting date are as under:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Security Deposits	141	68	136	64
Deposit with Banks - (a)	673	-	644	-
Deposit with Non-Banking Financial Companies	150	600	650	260
Deposit with Others	8	-	8	-
Accrued Interest	-	194	-	101
Other Receivables				
Unsecured, Considered Good	-	194	-	99
Unsecured, Considered Doubtful	-	2	-	2
Less: Loss Allowances	-	(2)	-	(2)
	972	**1,056**	**1,438**	**524**

(a) Deposit with Banks include ₹ 73 Crore (as at 31/03/2023 ₹ 44 Crore) towards earmarked balances lying in escrow accounts/ under lien with various authorities.

5H. Trade Receivables

Trade receivables are measured at their transaction price on initial recognition, unless it contains a significant financing component or pricing adjustments embedded in the contract in which cases it is recognised at fair value. Trade receivables which are held with the objective of collecting the contractual cash flows, are subsequently measured at amortised cost less loss allowance.

Trade receivables which are subject to a factoring arrangement without recourse are de-recognized in its entirety. Under this arrangement, the Company transfers relevant receivables to the factor in exchange for cash and does not retain late payment and credit risk. Trade receivables subject to factoring arrangements are subsequently measured at FVTOCI.

Trade receivables which arise from contracts where the sale price is provisional and revenue model have the character of a commodity derivative are measured at fair value. The fair value is measured at forward rate and subsequent changes are recognised as Other Operating Revenue.

For Trade Receivables and Contract Assets, the Company applies the simplified approach which requires expected life time losses to be recognized from initial recognition of the receivables.

The details of trade receivables outstanding as at the reporting date are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Secured, Considered Good	-	-
Unsecured, Considered Good	2,503	2,624
Unsecured, significant increase in credit risk	-	-
Unsecured, Credit Impaired	34	34
	2,537	**2,658**
Less: Loss Allowances - (d)	(59)	(48)
	2,478	**2,610**

(a) Trade Receivable ageing schedule as at 31/03/2024 :

Particulars	Unbilled	Not due	Outstanding for following periods from due date of receipt					Total
			Less than 6 months	6 months - 1 year	1-2 years	2-3 years	More than 3 years	
(i) Undisputed – considered good	-	1,971	400	40	83	5	4	**2,503**
(ii) Undisputed – which have significant increase in credit risk	-	-	-	-	-	-	-	**-**
(iii) Undisputed – credit impaired	-	-	-	-	-	-	13	**13**
(iv) Disputed – considered good	-	-	-	-	-	-	-	**-**
(v) Disputed – which have significant increase in credit risk	-	-	-	-	-	-	-	**-**
(vi) Disputed – credit impaired	-	-	-	-	-	-	21	**21**
Total	**-**	**1,971**	**400**	**40**	**83**	**5**	**38**	**2,537**
Less: Loss Allowances - (d)								(59)
Net Trade Receivables								**2,478**

Trade Receivable ageing schedule as at 31/03/2023 :

Particulars	Unbilled	Not due	Outstanding for following periods from due date of receipt					Total
			Less than 6 months	6 months -1 year	1-2 years	2-3 years	More than 3 years	
(i) Undisputed – considered good	-	2,167	330	105	15	-	7	**2,624**
(ii) Undisputed – which have significant increase in credit risk	-	-	-	-	-	-	-	**-**
(iii) Undisputed – credit impaired	-	-	-	-	-	-	13	**13**
(iv) Disputed – considered good	-	-	-	-	-	-	-	**-**
(v) Disputed – which have significant increase in credit risk	-	-	-	-	-	-	-	**-**
(vi) Disputed – credit impaired	-	-	-	-	-	-	21	**21**
Total	**-**	**2,167**	**330**	**105**	**15**	**-**	**41**	**2,658**
Less: Loss Allowances - (d)								**(48)**
Net Trade Receivables								**2,610**

(b) For trade receivables hypothecated against borrowings, Refer Note 12B.

(c) No trade or other receivable are due from directors or other officers of the Company either severally or jointly with any other person. Further, no trade or other receivable are due from firms or private companies respectively in which any director is a partner, or director or member.

(d) Loss allowances includes provision of ₹ 25 Crore (Year ended 31/03/2023: ₹ 14 Crore) made on account of expected credit loss on Trade Receivables: Refer Note 34(c)(iii).

(e) Refer Note 30 for balances with related parties.

Notes

forming part of the Standalone Financial Statements

5I. Cash and Cash Equivalents

Cash and cash equivalents comprise of cash at bank and in hand, short-term deposits and short term highly liquid investments with an original maturity of three months or less that are readily convertible to known amounts of cash and are subject to insignificant risk of changes in value.

The Company adopts a policy of managing assets with liquidity in mind and monitoring future cash flows and liquidity on a regular basis. Investments in overnight mutual funds are classified as cash and cash equivalents as the instrument itself is readily convertible into cash and has a determinable market value. At the time of the initial investment, the Company is satisfied that the risk of changes in value is insignificant and therefore the amount of cash to be received on redemption is known. Such investments have lower risk of changes in fair value, provide flexibility to liquidate at short notice, including during times of market stress.

The details of cash and cash equivalents outstanding as at the reporting date are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Cash on Hand	-	-
Cheques and Drafts on Hand including remittance in transit- (a)	-	39
Balances with Banks		
Current Accounts	864	433
	864	**472**

(a) Includes Nil (as at 31/03/2023 ₹ 38 Crore) remittance in transit.

(b) There is no restriction with regard to cash and cash equivalents at the end of current year and previous year.

5J. Bank Balances other than Cash and Cash Equivalents

The Company recognises Investments in term deposits with Banks (with original maturity of more than three months but less than twelve months), seperately as bank balances other than cash and cash equivalents.

The details of such balances with banks are as under:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Balances with Banks		
Earmarked Balances - (a)	15	15
Deposits with Initial Maturity more than three months	701	1,302
	716	**1,317**

(a) Includes unclaimed dividend of ₹ 6 Crore (as at 31/03/2023 ₹ 6 Crore).

6. Income taxes

Income tax expense comprises of tax currently payable and deferred tax.

Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from 'profit before tax' as reported in the statement of profit and loss because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date.

Deferred tax

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the balance sheet and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognised for all taxable temporary differences.

Deferred tax on the deductible temporary difference and taxable temporary differences in respect of carrying value of right of use assets and lease liability and their respective tax bases are recognised separately.

Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that at the time of transaction affects neither the taxable profit nor the accounting profit.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off when they relate to income taxes levied by the same taxation authority. Current tax assets and tax liabilities are offset where the Company has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Minimum Alternative Tax (MAT) is recognized as an asset only when and to the extent there is convincing evidence that the Company will pay normal income tax during the specified period. In the year in which the MAT credit becomes eligible to be recognized as an asset, the said asset is created by way of credit to the statement of profit and loss and included in deferred tax assets. The Company reviews the same at each balance sheet date and writes down the carrying amount of MAT entitlement to the extent there is no longer convincing evidence to the effect that Company will pay normal income tax during the specified period.

Current and deferred tax for the period

Current and deferred tax are recognised in the statement of profit and loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity, respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Uncertain tax positions are reflected in the overall measurement of the Company's tax expense and are based on the most likely amount or the expected value arrived at by the Company which provides a better prediction of the resolution of uncertainty. Uncertain tax positions are monitored and updated as and when new information becomes available, typically upon examination or action by the taxing authorities or through statute expiration and judicial precedent.

The Company considers when a particular amount payable for interest and penalties on income taxes is determined to be within the scope of Ind AS 37, it is presented as part of financing cost or other expenses, respectively unless when there is an overall settlement with tax authority and the interest and penalties cannot be identified separately in which case it is determined to be part of income taxes and accounted under Ind AS 12 Income taxes.

Notes

forming part of the Standalone Financial Statements

Critical accounting judgment and key sources of estimation of taxes uncertainties and valuation allowances

The Company calculates income tax expense based on reported income. Deferred income tax expense is calculated based on the differences between the carrying value of assets and liabilities for financial reporting purposes and their respective tax basis that are considered temporary in nature. Valuation of deferred tax assets is dependent on management's assessment of future recoverability of the deferred tax benefit. Expected recoverability may result from expected taxable income in the future, planned transactions or planned tax optimizing measures. Economic conditions may change and lead to a different conclusion regarding recoverability.

The Company is subject to tax assessments and ongoing proceedings, which are pending before various Tax Appellate Authorities. Management periodically evaluates the positions taken in tax returns with respect to above matters, including unresolved tax disputes, which involves interpretation of applicable tax regulations and judicial precedents. Current tax liability and tax asset balances are presented, after recognising as appropriate, provision for taxes payable and contingencies basis management's assessment of outcome of such ongoing proceedings and amounts that may become payable to the tax authorities. Considering the nature of such estimates and uncertainties involved, the amount of such provisions may change upon final resolution of the matters with tax authorities.

6A. Tax Expenses

(a) Income tax expenses recognised in Statement of Profit and Loss

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Current tax		
Current income tax expenses for the year	879	864
Tax adjustment for earlier years	14	53
	893	**917**
Deferred tax		
Deferred income tax (benefits)/expenses for the year	67	175
MAT credit entitlement	849	684
Tax adjustment for earlier years- (i) and (ii)	(511)	(227)
	405	**632**
Total income tax expenses recognised in Statement of Profit and Loss for the year	**1,298**	**1,549**

(i) During the year ended March 31, 2024, the Company signed a Binding Memorandum of Understanding ["MOU"] with a buyer for sale of land situated at Kalwa, Maharashtra at a consideration of ₹ 595 Crore to be received in multiple tranches over a period of time and 1.5% of the Sales Revenue from the project as defined in the MOU ["transaction"]. The Company is reasonably certain about the culmination of this transaction. The Company has brought forward capital losses which were not recognized as Deferred Tax Assets (DTA) previously, now recognized during the year to the extent of ₹ 129 Crore, as there is reasonable certainty of realizing losses against the future capital gain resulting from this transaction.

(ii) During the year ended March 31, 2024, the Company have made an assessment of the impact of the Taxation law (Amendment) Ordinance, 2019 and decided to continue with the existing tax structure until utilization of accumulated Minimum Alternate Tax (MAT) Credit and benefit under Chapter VIA of the Income Tax Act 1961. However, in accordance with the accounting standards, the Company has remeasured the deferred tax liability that is expected to reverse in future when the Company would migrate to the new tax regime. Accordingly, during the current year, the Company has written back its net deferred tax liability to the extent of ₹ 404 Crore. (31/03/2023: ₹ 184 Crore).

(b) Reconciliation of estimated Income Tax Expenses at Indian Statutory Income Tax Rate to Income Tax Expenses reported in Statement of the Comprehensive Income

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Profit before Income Taxes	4,995	4,875
Indian Statutory Income Tax Rate *	34.94%	34.94%
Estimated Income Tax Expenses	**1,745**	**1,704**
Tax effect of adjustments to reconcile expected Income Tax expenses to reported Income Tax Expenses:		
Income Exempt from Tax & Deduction	(12)	(13)
Long-Term Capital (Gains)/Loss	-	(5)
Expenses not deductible in determining Taxable Profit	62	76
Reversal / (Deduction) on Power Plant u/s 80IA of the Income Tax Act during tax holiday period	-	21
Exchange gain on Return on Capital	-	(60)
Tax adjustment for earlier years - Deferred tax Reversal (Refer 6A(a) (i) and 6A(a) (ii))	(533)	(184)
Tax adjustment for earlier years - Deferred tax - Others	22	(43)
Tax adjustment for earlier years - Current tax	14	53
	(447)	**(155)**
Income Tax Expenses recognised in the Statement of Profit and Loss	**1,298**	**1,549**
* Applicable Indian statutory tax rate for the years ended 31/03/2024 and 31/03/2023 is 34.94%.		
(c) Income Tax expenses recognised in OCI - Refer Note - 26 for further details	**213**	**1,123**
(d) Income Tax expense recognised directly in Equity - Basis adjustment on Cash flow hedges & others	**7**	**-**

6B. Income Tax Assets and Liabilities with Tax Authorities

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Income Tax Assets		
Non-Current Tax Assets (Net)	-	-
	-	**-**
Income Tax Liabilities (Net)		
Current Tax Liabilities (Net)	1,320	1,244
	1,320	**1,244**

Notes

forming part of the Standalone Financial Statements

6C. Deferred tax Assets and Liabilities (Net)

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Deferred tax Assets (Net)		
Deferred tax Assets	969	859
MAT Credit Entitlement	507	1,356
	1,476	**2,215**
Deferred tax Liabilities		
Deferred tax Liabilities	(6,791)	(6,919)
	(6,791)	**(6,919)**
Net Deferred tax Assets/(Liabilities)	**(5,315)**	**(4,704)**

a) Movement in Deferred tax Assets and (Liabilities) as of and during the year ended :

(₹ Crore)

Particulars	As at 01/04/2023	Recognised in the Statement of Profit and Loss	Recognised in Other Comprehensive Income	Deferred tax on basis adjustment	As at 31/03/2024
Deferred Income Tax Assets					
Provisions deductible for tax purposes in future period	428	(4)	-	-	424
Lease liability against Right of use assets	249	(7)	-	-	242
Retirement Benefits and Compensated Absences	13	(1)	-	-	12
Deferred Income	169	(7)	-	-	162
Tax lossess carried forward (Refer Note 6A(a) (i))	-	129	-	-	129
MAT Credit Entitlement	1,356	(849)	-	-	507
Others	-	-	-	-	-
	2,215	(739)	-	-	1,476
Deferred Income Tax Liabilities					
Depreciation and Amortization	(6,228)	296	-	-	(5,932)
Right of use assets	(222)	18	-	-	(204)
Cash Flow Hedges	(149)	-	88	7	(54)
Fair Value Measurements of Financial Instruments	(293)	20	(318)	-	(591)
Others (Investments made in Associates)	(27)	-	17	-	(10)
	(6,919)	334	(213)	7	(6,791)
Net Deferred Tax Assets/(Liabilities) (Net)	**(4,704)**	**(405)**	**(213)**	**7**	**(5,315)**

(₹ Crore)

Particulars	As at 01/04/2022	Recognised in the Statement of Profit and Loss	Recognised in Other Comprehensive Income	Deferred tax on basis adjustment	As at 31/03/2023
Deferred Income Tax Assets					
Provisions deductible for tax purposes in future period	407	21	-	-	428
Lease liability against ROU assets	118	131	-	-	249
Retirement Benefits and Compensated Absences	59	(49)	3	-	13
Deferred Income	200	(31)	-	-	169
Cash Flow Hedges	1,016	-	(1,016)	-	-
MAT Credit Entitlement	2,040	(684)	-	-	1,356
Others	45	(45)	-	-	-
	3,885	(657)	(1,013)	-	2,215
Deferred Income Tax Liabilities					
PPE Depreciation and Intangible Amortization	(6,466)	238	-	-	(6,228)
ROU Assets	(93)	(129)	-	-	(222)
Cash Flow Hedges	-	-	(149)	-	(149)
Fair Value Measurements of Financial Instruments	(275)	(84)	66	-	(293)
Others	-	-	(27)	-	(27)
	(6,834)	25	(110)	-	(6,919)
Net Deferred Tax Assets/(Liabilities) (Net)	**(2,949)**	**(632)**	**(1,123)**	**-**	**(4,704)**

(b) Deferred tax assets and deferred tax liabilities have been offset wherever the Company has a legally enforceable right to set-off current tax assets against current tax liabilities and where the deferred tax assets and deferred tax liabilities relates to income tax levied by the same taxation authorities.

(c) The Company has not recognised deferred tax assets on following long term capital losses as presently it is not probable of recovery as at 31/03/2024

(₹ Crore)

Description	Assessment Year	Gross Amount	Tax impact	Year of Expiry
Long Term Capital Loss	2016-17	-	-	AY 2024-25
Long Term Capital Loss	2017-18	381	89	AY 2025-26
		381	**89**	

The Company has not recognised deferred tax assets on following long term capital losses as presently it is not probable of recovery as at 31/03/2023

(₹ Crore)

Description	Assessment Year	Gross Amount	Tax impact	Year of Expiry
Long Term Capital Loss	2016-17	34	8	AY 2024-25
Long Term Capital Loss	2017-18	901	210	AY 2025-26
		935	**218**	

(d) The Company has not recognised deferred tax asset in respect of deductible temporary differences related to its subsidiaries and associates as presently it is not probable that future taxable long term capital gain will be available in the foreseeable future to recover such deferred tax assets.

Notes

forming part of the Standalone Financial Statements

7. Other Non-Current and Current Assets

(Unsecured, Considered Good unless otherwise stated)

Assets that do not meet the criteria of classifying as financial assets, not reported in any other categories separately but are relevant to understand Companies financial position are classified as other assets.

At each reporting period, the Company reviews the recoverability of such assets and appropriate provision is made in case any asset is considered as doubtful of recovery.

The details of other non-current and current assets outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Considered Good				
Capital Advance - (a)	730	-	523	-
Advance to Employees	-	5	-	7
Deposit with Government and Other Authorities	-	32	-	34
Advance to Supplier for Goods and Services - (e)	-	1,139	2	1,691
Prepaid Expenses - (b)	46	102	27	106
Others - (c) and (d)	455	1,443	484	1,809
Considered Doubtful				
Advance to Supplier for Goods and Services	43	117	12	110
Others	-	-	-	40
Less: Loss Allowances	(43)	(117)	(12)	(150)
	1,231	**2,721**	**1,036**	**3,647**

(a) Includes an advance of ₹ 91 crore given to Gujarat Industrial Development Corporation (GIDC) who are constructing a common desalination plant (the 'Plant') at Dahej Industrial Area in Gujarat through a SPV, having total estimated cost of ₹ 1,140 crore. The Company's participation is 10% of total capacity. The advance represents 80% of our share out of total planned capital expenditure. Pending finalisation of the structure of the SPV, this amount has been recorded under Capital Advance.

(b) Prepaid Expenses includes ₹ 70 Crore (as at 31/03/2023 ₹ 50 Crore) towards surplus Plan Assets of Gratuity Fund recognised, Refer Note 14B (a)(I)(a)(ix) for further details.

(c) Mainly includes unutilised Indirect tax credits and claims receivables from Indirect Tax Authorities.

(d) Includes ₹ 192 Crore (Garepalma mines at Chattisgarh ₹ 74 Crore and Kathautia mines in Jharkhand ₹ 118 Crore) [as at 31/03/2023 ₹ 192 Crore (Garepalma mines ₹ 74 Crore and Kathautia mines ₹ 118 Crore)] towards appropriation of Performance Bank Guarantee by Nominated Authority (NA). Details are given below :

Gare Palma IV/4 (GP-4), Gare Palma IV/5 (GP-5) and Kathautia coal mines were acquired by the Company through auction conducted by the Nominated Authority (NA) constituted under the Ministry of Coal, Government of India. The Company was required to achieve certain efficiency parameters and reach their Peak Rated Capacity (PRC) during FY 2015-16. Performance security in the form of Performance Bank Guarantees (PBG) of ₹ 318 crore (for GP-4), ₹ 369 crore (for GP-5) and ₹ 267 crore (for Kathautia) were provided by the Company to NA in this regard.

Due to the various delays on the part of Government Authorities, PRC was achieved by the Company for GP-4 and GP-5 during FY 2016-17 and for Kathautia during FY 2017-18. Having satisfied itself about achievement of efficiency parameters/ PRC, NA returned the PBG in respect of GP-4 on 19/06/2017. However, in a volte face action, vide a letter dated 25/04/2018, NA imposed a penalty equal to 20% of PBG amounting to ₹ 64 Crore for GP-4, ₹ 74 Crore for GP-5 and ₹ 118 Crore for Kathautia. As the PBG for GP-5 is still with NA, it also appropriated an amount equal to the penalty from the PBG of the GP-5 mines. For Kathautia Coal Mine only appropriated amount of ₹ 118 crore is with NA. In terms of agreement, we have not renewed the PBG for remaining amount.

The above actions were contested by the Company. The Hon'ble Chhattisgarh High Court at Bilaspur has already given its judgment in favour of the Company in the matter related to GP-5. As per the judgment, Hon'ble High Court has asked NA to refund the amount appropriated by them and return the PBG to the Company. The NA has filed an appeal before the Hon'ble Supreme Court. In case of Kathautia, the Company has preferred a petition before Mines Tribunal at Ranchi for quashing of appropriation order and the Tribunal has ordered to refund ₹ 118 Crore after holding that the appropriation order was bad, yet no appeal has been preferred against the order of Tribunal. The Company's appeal to quash the demand raised by NA in case of GP-4 is yet to be decided and is pending before the Mines Tribunal at Bilaspur.

(e) Refer Note 30 for balances with related parties.

8A. Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of finished goods and work in progress includes raw materials, direct labour, other direct costs and related production overheads. Costs of inventories include the transfer from equity any gains/losses on qualifying cash flow hedges for purchases of raw materials.

Cost of raw material and traded goods comprises of Cost of purchases and also include all other costs incurred in bringing the inventories to their present location and condition and are net of rebates and discounts.

The Inventories are measured at Fair Value only in those cases where the Inventories are designated into a fair value hedge relationship.

Cost is determined using the weighted average cost basis. However, the same cost basis is applied to all inventories of a particular class. Inventories of stores and spare parts are valued at weighted average cost basis after providing for cost of obsolescence and other anticipated losses, wherever considered necessary.

Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

Materials and other supplies held for use in the production of inventories (finished goods, work-in-progress) are not written down below the cost if the finished products in which they will be used are expected to sell at or above the cost.

Critical accounting judgement and key sources of estimation uncertainty

Measurement of bulk inventory quantities (such as coal, bauxite, copper concentrates, etc.) lying at yards and work in progress of precious metals at smelter and refinery is material, complex and involves significant judgement and estimates resulting from measuring the surface area, dip measurement of materials in tanks/silos, etc.The Company performs physical counts of the above inventory on a periodic basis using internal / external experts to perform volumetric surveys and assessments, basis which the estimate of quantity for these inventories is determined. The variations noted between book records and physical quantities of the above inventories are evaluated and appropriately accounted in the books of accounts.

Notes

forming part of the Standalone Financial Statements

The details of inventories outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024			As at 31/03/2023		
	In Hand	In Transit	Total	In Hand	In Transit	Total
Raw Materials	2,332	5,208	7,540	3,579	4,921	8,500
Work-in-Progress	8,135	62	8,197	7,666	41	7,707
Finished Goods	1,825	210	2,035	2,174	269	2,443
Stock-in-Trade	17	-	17	20	-	20
Stores and Spares	908	32	940	845	80	925
Coal and Fuel	745	31	776	486	105	591
	13,962	**5,543**	**19,505**	**14,770**	**5,416**	**20,186**

(a) The Company has applied fair value hedge accounting on its Copper, Gold and Silver inventory which forms part of Work-in-Progress and Finished Goods. Fair value hedges are mainly used to hedge the exposure to the change in fair value of commodity price risks. The fair value adjustment remains part of the carrying value of inventory and is taken to the statement of profit and loss when the inventory is either sold or consumed, Refer Note 5F(a) and 5F(h).

(b) For Inventories hypothecated against secured short-term borrowings, Refer Note 12B.

(c) Write downs of inventories (net of reversal) to net realizable value related to raw materials, work-in-progress and finished goods amounted to ₹ 594 Crore (as at 31/03/2023 ₹ 625 Crore). These were recognized as expense during the year and included in 'cost of material consumed' and 'change in value of inventories of Finished goods, Work-in-Progress and Stock-in-Trade' in the Statement of Profit and Loss.

(d) Inventories in hand includes bulk materials of Coal, Bauxite and Copper Concentrate lying at yards, mines, plants and precious metals of Gold and Silver lying at Copper smelter and refinery aggregating to ₹ 3,990 Crore (as at 31/03/2023 ₹ 4,232 Crore).

8B. Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade

(₹ Crore)

	Opening Inventories		Closing Inventories		Net Change	
	as at		as at		Year ended	
	01/04/2023	01/04/2022	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Work-in-Progress	7,707	8,268	8,197	7,707	(490)	561
Finished Goods	2,443	2,080	2,035	2,443	408	(363)
Stock-in-Trade	20	884	17	20	3	864
	10,170	**11,232**	**10,249**	**10,170**	**(79)**	**1,062**

Details of inventories under broad heads are given below:

(₹ Crore)

	Work-in-Progress		Finished Goods		Stock-in-Trade		Total	
	As at		As at		As at		As at	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Alumina	393	451	84	91	-	-	477	542
Aluminium and Aluminium Products	1,210	1,477	634	666	4	16	1,848	2,159
Copper and Copper Products	3,526	3,301	1,249	1,492	-	-	4,775	4,793
Precious Metals	2,017	1,112	56	182	-	-	2,073	1,294
Others - (a)	1,051	1,366	12	12	13	4	1,076	1,382
	8,197	**7,707**	**2,035**	**2,443**	**17**	**20**	**10,249**	**10,170**

(a) Others include mainly inventories of own mined coal, anode, soda in process, Di Ammonium Phosphate (DAP), Nitrogen, Phosphorus and Potassium and other materials.

9. Non-Current Assets classified as Held for Sale

Non-current assets and disposal group are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-current assets classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell except for those assets that are specifically exempt under relevant Ind AS. Once the assets are classified as "Held for sale", those are not subjected to depreciation till disposal.

An impairment loss is recognised for any initial or subsequent write-down of the asset to fair value less costs to sell.

(₹ Crore)

		As at	
		31/03/2024	31/03/2023
(a)	**Details of Assets classified as held for sale**	32	21
		32	**21**
	Non-Current assets classified as Held for Sale		
	Land and Building	-	-
	Plant and Machinery	32	21
	Total	**32**	**21**

(b) The Company is in the process of disposing the above assets.

(c) During the current year, the Company has classified certain pots in one of its smelters as 'held for sale' (carrying amount ₹ 15 Crore). These pots were not in operation due to various technological challenges. Further, major components have deteriorated over the period and are beyond repair or revival.

(d) During the year ended 31/03/2023, the Company had written back impairment loss on determination of realizable value (Net of cost to sales) of certain equipment and accessories classified as held for sale amounting to ₹ 12 Crore. Portion of such equipment are disposed over the period and the carrying amount of remaining assets is ₹ 6 Crore (year ended 31/03/2023 ₹ 7 Crore).

(e) The fair value of the assets held for sale approximates the carrying value.

Notes

forming part of the Standalone Financial Statements

10. Equity Share Capital

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

Ordinary shares

Ordinary shares of the Company are classified as equity share capital and are accounted for at par value. Any value realised over and above par value upon issuance of equity shares are accounted for as 'Securities Premium' under 'Other Equity'. Incremental costs directly attributable to the issuance of new ordinary shares, share options and buyback are recognized as a deduction from equity, net of any tax effects.

Treasury Shares

Treasury shares are the own equity instruments of the Company that are re-acquired by the Company. Treasury shares are recognised at cost and the par value of treasury shares is reduced from equity share capital whereas the difference between cost and par value is deducted from treasury shares held by ESOP trust under 'Other Equity'. No gain or loss is recognised in the statement of profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments. Consideration received on issue or sale is recognised directly in equity. Any difference between the carrying amount and the consideration, if reissued, is recognised in Securities premium. Treasury shares are alloted towards excercise of share options.

(₹ in Crore

	Numbers as at		As at	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Authorised				
Equity Shares of ₹ 1/- each	2,500,000,000	2,500,000,000	250	250
Redeemable Cumulative Preference Shares of ₹ 2/- each	25,000,000	25,000,000	5	5
			255	255
Issued				
Equity Shares of ₹ 1/- each - (a)	2,247,770,169	2,247,748,231	225	225
			225	225
Subscribed and Paid-up				
Equity Shares of ₹ 1/- each fully paid-up	2,247,762,772	2,247,740,834	225	225
Less: Face Value of Equity Shares forfeited	(546,249)	(546,249)	-	-
Add: Forfeited Shares (Amount originally Paid up)			-	-
	2,247,216,523	2,247,194,585	225	225
Less: Treasury Shares				
Equity Shares. - (b)(i)	(16,316,130)	(16,316,130)	(2)	(2)
Equity Shares - (b)(ii)	(10,276,885)	(9,219,067)	(1)	(1)
	2,220,623,508	**2,221,659,388**	**222**	**222**

(a) Issued Equity Capital as at 31/03/2024 includes 7,397 Equity Shares (as at 31/03/2023 7,397 Equity Shares) of ₹ 1/- each issued on Rights basis kept in abeyance due to legal case pending.

(b) Treasury shares include :

(i) Shares held by Trident Trust which represents equity shares of ₹ 1/- each fully paid-up of the Company issued, pursuant to a Scheme of Arrangements approved by the Hon'ble High Courts of Mumbai and of Allahabad, vide their Orders dated 31st October, 2002, and 18th November, 2002, respectively, to the Trident Trust, created wholly for the benefit of the Company and is being managed by trustees appointed by it. The Company in its board meeting held on 10th November, 2023 has extended Tenure of trust until instruction of expiry/ termination of term.

(ii) Shares held by Hindalco Employee Welfare Trust (ESOP Trust) which represents equity shares of ₹ 1/- each fully paid-up of the Company. The Trust buys shares of the Company from the stock exchange, for issuing shares to employees pursuant to the Employees Stock Option Scheme (ESOS), 2018 & 2022. Refer Note 11 (a) (viii) for further details.

(c) Reconciliation of shares outstanding at the beginning and at the end of the reporting period:

(₹ Crore)

	Numbers as at		As at	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023
Equity shares outstanding at the beginning of the year	2,221,659,388	2,223,791,597	222	222
Equity shares allotted pursuant to exercise of ESOS 2006 & 2013	21,938	21,861	-	-
Equity shares allotted pursuant to exercise of ESOS 2018 through ESOP Trust	1,379,666	801,930	-	-
Equity shares purchased by ESOP Trust from market pursuant to ESOS 2018 & ESOS 2022	(2,437,484)	(2,956,000)	-	-
Equity shares outstanding at the end of the year	2,220,623,508	2,221,659,388	222	222

(d) The Company has one class of equity shares having a par value of ₹ 1/- per share. Each shareholder is eligible for one vote per share held. The dividend proposed by the Board of Directors is subject to the approval of the shareholders in the ensuing Annual General Meeting, except in case of interim dividend. In the event of liquidation, the equity shareholders are eligible to receive the remaining assets of the Company after distribution of all preferential amounts, in proportion to their shareholding.

(e) Details of shareholders holding more than 5% Equity Shares in the Company on reporting date:

	Number of Shares Held As at		Percentage of Holding * As at	
	31/03/2024	31/03/2023	31/03/2024	31/03/2023
IGH Holdings Private Limited	350,088,487	350,088,487	15.58%	15.58%
Birla Group Holdings Private Limited	228,292,308	228,292,308	10.16%	10.16%
Life Insurance Corporation of India and its Associates	148,391,917	216,823,769	6.60%	9.65%

* Percentage have been calculated on the basis of total number of shares outstanding (before adjusting Treasury shares, refer footnote (b) above).

(f) Shares held by promoters at the end of the year and Movement

Promoter's Name $	No. of Shares as at 31/03/2024	Percentage of total shares *	No. of Shares as at 31/03/2023	Percentage of total shares *	% Change during the Year
Kumar Mangalam Birla	901,635	0.04%	901,635	0.04%	-
Birla Group Holdings Private Limited	228,292,308	10.16%	228,292,308	10.16%	-
Total	**229,193,943**		**229,193,943**		

$ Promoter here means promoter as defined in Section 2(69) of the Companies Act, 2013.

* Percentage have been calculated on the basis of total number of shares outstanding (before adjusting Treasury shares, refer footnote (b) above).

(g) Shares reserved for issue under options:

The Company has reserved equity shares for issue under the Employee Stock Option Schemes, Refer Note 14B(b) - Employee Share-based Payments for details of Employee Stock Option Schemes.

(h) The Company during the preceding 5 years:

i. Has not allotted shares pursuant to contracts without payment received in cash.

ii. Has not issued shares by way of bonus shares.

iii. Has not bought back any shares.

Notes

forming part of the Standalone Financial Statements

(i) Details of struck off entities holding equity shares in the Company is as below:

S. No.	Name of struck off Company	No. of shares held as at 31/03/2024	Paid-up as at 31/03/2024 (₹)	Paid-up as at 31/03/2023 (₹)
1	Siddha Papers Private Limited	5	5	5
2	Vaishak Shares Limited	1	1	1
3	Alike Trading Private Limited	50	50	50
4	Fayda Portfolio Private Limited	100	100	100
5	Kothari Intergroup Limited	1	1	1
6	Arunoday Holdings Private Limited	4,645	4,645	6,551
7	Dreams Broking Private Limited	5	5	5
8	Ambica Multifibres Limited	10,714	10,714	10,714
9	Tangmarg Investment And Trading Private Limited	1,525	1,525	1,525
10	Central Investment Private Limited	5,820	5,820	5,820
11	Nacon Software Services Private Limited	1,500	1,500	1,500
12	Murli Tie- Up Private Limited	46	46	46
13	Architectural Glass Private Limited	60	60	60
14	Gnk Investments Private Limited	200	200	200

11. Other Equity

Details of other equity outstanding are given below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Share Application Money pending Allotment	-	-
Reserves and Surplus		
Capital Reserve	145	145
Capital Redemption Reserve	102	102
Business Reconstruction Reserve	7,715	7,715
Securities Premium	8,235	8,234
Employee Stock Options	137	108
Treasury Shares held by ESOP Trust	(377)	(306)
General Reserve	21,354	21,354
Retained Earning	17,207	14,178
	54,518	**51,530**
Other Reserves		
Gain/ (Loss) on Equity Instruments FVTOCI	8,877	6,472
Gain/ (Loss) on Debt Instruments FVTOCI	(10)	(14)
Effective portion of Cash Flow Hedge	120	276
Cost of Hedging Reserve	(20)	3
	8,967	**6,737**
	63,485	**58,267**

(a) Brief Descriptions of items of Other Equity are given below:

(i) Share Application Money pending Allotment:

Share application money pending allotment represents amount received from employees who has exercised employee stock options for which shares are pending allotment as on balance sheet date.

(ii) Capital Reserve:

The Company has created capital reserve pursuant to past mergers and acquisitions.

Details of capital reserve over the years are mentioned below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Forfeiture of preferential share warrants during the year ended 31/03/2009	139	139
Other transactions over the years	6	6
	145	**145**

(iii) Capital Redemption Reserve:

The Company has created capital redemption reserve as per the requirement of the Companies Act.

Details of capital redemption reserve over the years are mentioned below:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Pursuant to scheme of amalgamation of Indo Gulf Corporation Ltd. with Hindalco Industries Limited during the year ended 31/03/2003	100	100
Other transactions over the years	2	2
	102	**102**

(iv) Business Reconstruction Reserve:

The Company had formulated a scheme of financial restructuring under sections 391 to 394 of the Companies Act 1956 ("the Scheme") between the Company and its equity shareholders approved by the High Court of judicature of Bombay to deal with various costs associated with its organic and inorganic growth plan. Pursuant to this, a separate reserve account titled as Business Reconstruction Reserve ("BRR") was created during the year 2008-09 by transferring balance standing to the credit of Securities Premium Account of the Company for adjustment of certain expenses as prescribed in the Scheme.

(v) Securities Premium:

Securities premium reserve is used to record the premium on issue of shares. The reserve is utilized in accordance with the provision of the Companies Act.

(vi) Debenture Redemption Reserve:

The Company is required to create a debenture redemption reserve out of the profits which is available for payment of dividend, for the purpose of redemption of debentures.

(vii) Employee Stock Options:

The employee stock option account is used to recognize the grant date fair value of options /RSUs issued to employees under stock option schemes.

Notes

forming part of the Standalone Financial Statements

(viii) Treasury Shares held by ESOP Trust

The Company has created a trust, namely "Hindalco Employee Welfare Trust"(ESOP Trust) for providing share-based payments to its employees (including its Subsidiaries' employees). The Company uses this Trust as a vehicle for issuing shares to employees covered under the Scheme. The Trust buys shares of the Company from the stock exchange, for issuing shares to employees after excercising under the Employees Stock Option Scheme, 2018 and 2022.

(ix) General Reserve:

The Company has created this reserve by transferring certain amount out of the profit at the time of distribution of dividend in the past.

(x) Retained Earning

Amount of retained earnings represents accumulated profit and losses of the Company as on reporting date. Such profits and losses are after adjustment of payment of dividend, transfer to any reserves as statutorily required and adjustment for realised gain/loss on derecognition of equity instruments measured at FVTOCI. Actuarial Gain/ Loss arising out of Actuarial valuation is immediately transferred to Retained Earning.

(xi) Gain/ (Loss) on equity and debt instruments accounted as FVTOCI

The Company has elected to recognize changes in the fair value of certain investments in other comprehensive income. These changes are accumulated within the FVTOCI equity investments reserve and FVTOCI debt investment reserve within equity.

(xii) Effective portion of Cash Flow Hedge:

The Company uses hedging instruments as part of its risk management policy for commodity and foreign currency risk as described in note 5F. The Cash Flow hedging reserve is used to recognise the effective portion of gain or loss on designated hedging relationship, Refer Note 5F.

(xiii) Cost of Hedging Reserve:

The Company designates the spot component of some of its derivative instruments in fair value hedge relationship and cash flow hedge relationship. The Company defers changes in the forward element of such instruments in the cost of hedging reserve. For fair value hedge forward points at inception is amortized on a straight line basis from the OCI based on the remaining life of trade. For cash flow hedge the deferred cost of hedging are included in the initial cost of the related hedged items when it is recognized or reclassified to the statement of profit and loss when the hedged item effects the statement of profit and loss. The Company designates the intrinsic value of option contracts whereas the time value of option contracts is included in the cost of hedging reserve, Refer Note 5F.

(b) Movement of each item of other equity is presented in Standalone Statement of Changes in Equity.

(c) Shareholders of the Company approved final dividend of ₹ 3 per fully paid up equity shares aggregating to ₹ 667 Crore (net of dividend on treasury shares) for the year ended 31/03/2023 which was paid during this financial year.

(d) The Board of Directors of the Company has recommended final dividend of ₹ 3.50 per fully paid up equity share aggregating to ₹ 777 Crore (net of dividend on treasury shares) for the year ended 31/03/2024 which has not been recognised in the financial statement, and is subject to the approval of shareholders in the annual general meeting.

12. Financial Liabilities

Financial Liabilities are classified as either financial liabilities at FVTPL or financial liabilities at amortised cost.

Financial liabilities are measured at fair value through profit and loss (FVTPL) when it is either held for trading or it is designated as at FVTPL.

It is classified as held for trading if:

1) it has been acquired or incurred principally for the purpose of repurchasing it in the near term; or

2) on initial recognition it is part of a portfolio of identified financial instruments that the Company manages together and for which there is evidence of a recent actual pattern of short-term profit-taking; or

3) it is a derivative that is not designated and effective as a hedging instrument.

A financial liabilities other than those held for trading may also be designated as at FVTPL upon initial recognition if:

1) such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or

2) it forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the Company is provided internally on that basis; or

3) it forms part of a contract containing one or more embedded derivatives, and Ind-AS 109 Financial Instruments permits the entire combined contract to be designated as at FVTPL.

Financial Liabilities at FVTPL are stated at fair value, with any gains or losses arising on re-measurement recognised in the statement of profit and loss, except for the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability which is recognised in other comprehensive income. Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

De-recognition of financial liabilities

Financial liabilities are derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing fianncial liabilities are replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit or loss.

12A. Borrowings, Non-Current

(₹ Crore)

	As at 31/03/2024			As at 31/03/2023		
	Non-Current Portion	Current Maturities #	Total	Non-Current Portion	Current Maturities #	Total
Secured						
Rupee Term Loans - (b)	7,123	-	7,123	11,559	50	11,609
Unsecured						
Non-Convertible Debentures - (a)	-	-	-	-	699	699
	7,123	**-**	**7,123**	**11,559**	**749**	**12,308**

Current maturities of non-current borrowings have been disclosed under "Borrowings, Current", Refer Note 12B.

Notes

forming part of the Standalone Financial Statements

(a) Debentures comprise of following:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023		Redemption Date
	Gross Amount	Carrying Value	Gross Amount	Carrying Value	
Unsecured - (i)					
70,000 7.60% Redeemable Non-Convertible Debentures of ₹ 1 lakh each	-	-	700	699	-
	-	**-**	**700**	**699**	

(i) During the previous year, the Company had issued 70,000 7.60% Redeemable Non-Convertible Debentures amounting to ₹ 700 crore maturing on 18/03/2024 to meet the working capital requirement. These Non-Convertible debt securities had been issued to comply with provisions of SEBI Circular No. SEBI/HO/DDHS/CIR/P/2018/144 dated 26/11/2018 related to listed large corporates. The entire proceeds from issue of non-convertible debentures were utilized for the purpose mentioned in the Debenture Trust Deed. During the current year, the Company has repaid entire amount of ₹ 700 Crore on maturity.

(b) Secured Rupee term loan from banks comprise of the following:

(₹ Crore)

	Note	Rate of Interest^ applicable as on 31/03/2024	As at 31/03/2024		As at 31/03/2023		End of tenure
			Gross Amount	Carrying Value	Gross Amount	Carrying Value	
Axis Bank		Repo Rate + 180 bps*	619	603	619	603	31/03/2030
State Bank of India		MCLR 3 Month + 10 bps	2,114	2,104	2,239	2,228	31/03/2030
Rupee Term Loans : (A)	(I)		**2,733**	**2,707**	**2,858**	**2,831**	
State Bank of India		MCLR 3 Month + 10 bps	3,285	3,282	4,672	4,665	01/09/2030
Punjab National Bank		Repo Rate + 180 bps*	180	181	256	258	01/09/2030
Axis Bank		Repo Rate + 180 bps*	964	953	1,371	1,355	01/09/2030
Rupee Term Loans : (B)	(II)		**4,429**	**4,416**	**6,299**	**6,278**	
State Bank of India		-	-	-	2,500	2,500	-
Rupee Term Loans : (C)	(III)		**-**	**-**	**2,500**	**2,500**	
Total Rupee Term Loans (A)+(B)+(C)			**7,162**	**7,123**	**11,657**	**11,609**	

*Interest rates as at 31/03/2023 were Repo Rate + 160 bps.

The Borrowings are subsequently measured at amortised cost and interest accrued thereon is included in Note 12C - Other Financial Liability.

^Definition of abbreviation used

(i) 100 basis points (bps) is equal to 1%

(ii) Repo rate is the rate at which Reserve Bank of India lends funds to commercial banks.

(iii) Marginal Cost of funds based Lending Rate (MCLR) is a tenor-linked internal benchmark rate of respective bank

(I) The term loans from banks are secured by a first ranking charge/ mortgage/ security interest in respect of all the movable and immovable items of Property, Plant and Equipment of Mahan Aluminium plant, both present and future, carrying value ₹ 10,686 Crore (as at 31/03/2023 ₹ 10,861 Crore), Refer note 3A. During the year, the Company has prepaid ₹ 125 Crore to State Bank of India which were originally scheduled to be repaid during December 2025 to March 2026. Term loan amounting to ₹ 2,733 Crore (gross) (31/03/2023: ₹ 2,858 Crore) is to be repaid in 16 quarterly instalments commencing from June 2026.

(II) The term loan is secured by a first ranking charge/ mortgage/security interest in respect of all the movable and immovable items of Property, Plant and Equipment of Aditya Aluminium plant both present and future, carrying value of ₹ 11,106 Crore (as at 31/03/2023 ₹ 11,320 Crore), Refer note 3A. During the year, the Company has prepaid ₹ 1,387 Crore to State Bank of India, ₹ 407 Crore to Axis Bank and ₹ 76 Crore to Punjab National Bank which were originally scheduled to be repaid during June 2024 to March 2026. Term loan amounting to ₹ 4,429 Crore (gross) (31/03/2023: ₹ 6,299 Crore) is to be repaid in 18 quarterly instalments commencing from June 2026.

(III) The Company had borrowed secured rupee term loan from State Bank of India amounting ₹ 2,500 Crore (gross) in March 2022. During the year, the entire term loan has been prepaid which were originally scheduled to be repaid in 34 quarterly instalments commencing from October 2023 till January 2032.

12B. Borrowings, Current

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Secured		
Rupee Loans from Banks - (a)	4	-
	4	**-**
Unsecured		
Foreign currency Loans from Indian Banks - (b)	3	-
Foreign currency Loans from Foreign Banks - (b)	510	-
	513	**-**
Current maturities of Long-Term Borrowings	-	749
	517	**749**

(a) Working Capital loan for Aluminium business, granted under the Consortium Lending Arrangement, are secured by a first pari-passu charge on entire stocks of raw materials, work-in-process, finished goods, consumable stores and spares and also book debts pertaining to the Company's Aluminium business, both present and future. Working Capital loan for the Copper business is secured by a first pari passu charge on stocks of raw materials, work-in-process, finished goods and consumable stores and spares and also book debts and other movable assets of Copper business, both present and future, Refer Note 8A (b) and 5H (b).

(b) Foreign currency loans from Indian Banks and Offshore branch of Foreign banks are mainly in nature of Buyers credit which has been availed for Copper business to meet its working capital requirement mostly to settle import payments of copper concentrate and certain other raw materials. Refer Note 5F(c) on non-derivative financial instruments used as hedging instruments.

Notes

forming part of the Standalone Financial Statements

(c) Net debt reconciliation

Movement of net debt for the year ended 31/03/2024 :

(₹ Crore)

Particulars	Other Assets - Cash and Cash Equivalents	Liabilities from Financing Activities				Net
		Non Current Borrowings	Current Borrowings	Lease Liabilities	Supplier's Credit^	
Balance as at 01/04/2023 #	**470**	**12,389**	**-**	**763**	**5,704**	**18,386**
Additions	-	-	-	65	-	65
Cash Flows (Net)@	388	(5,195)	513	(93)	(1,166)	(6,329)
Foreign Exchange Adjustments	-	-	4	-	6	10
Fair Value Changes	-	(48)	-	-	-	(48)
Debt Issuance Costs and Amortization	-	56	-	-	-	56
Interest Expense **	-	843	34	55	339	1,271
Interest Paid **	-	(873)	(34)	(49)	(353)	(1,309)
Other Changes/ Reclassification - Modification/ Reassessment	-	-	-	(5)	-	(5)
Balance as at 31/03/2024 #	**858**	**7,172**	**517**	**736**	**4,530**	**12,097**
Accrued interest as at 31/03/2024	-	(49)	-	-	(55)	(104)
Temporary book overdraft balances as at 31/03/2024	6	-	-	-	-	(6)
Balance as at 31/03/2024 as per Balance Sheet	**864**	**7,123**	**517**	**736**	**4,475**	**11,988**

Movement of net debt for the year ended 31/03/2023 :

(₹ Crore)

Particulars	Other Assets - Cash and Cash Equivalents	Liabilities from Financing Activities				Net
		Non Current Borrowings	Current Borrowings	Lease Liabilities	Supplier's Credit^	
Balance as at 01/04/2022 #	**3,405**	**18,202**	**1,409**	**342**	**2,456**	19,004
Additions	-	-	-	555	-	555
Cash Flows (Net)@	(2,935)	(5,376)	(1,378)	(132)	3,214	(737)
Foreign Exchange Adjustments	-	-	-	-	(32)	(32)
Fair Value Changes	-	(48)	(25)	-	-	(73)
Debt Issuance Costs and Amortization	-	59	-	-	-	59
Interest Expense **	-	972	52	47	140	1,211
Interest Paid **	-	(1,420)	(58)	(43)	(74)	(1,595)
Other Changes/ Reclassification - Modification/ Reassessment	-	-	-	(6)	-	(6)
Balance as at 31/03/2023 #	**470**	**12,389**	**-**	**763**	**5,704**	**18,386**
Accrued interest as at 31/03/2023	-	(81)	-	-	(69)	(150)
Temporary book overdraft balances as at 31/03/2023	2	-	-	-	-	(2)
Balance as at 31/03/2023 as per Balance Sheet	**472**	**12,308**	**-**	**763**	**5,635**	**18,234**

\# Borrowings include Interest accrued on borrowings.

@ Include temporary overdraft balances in current accounts.

** Interest expense and interest paid relates to borrowings and lease liabilities before interest capitalisation.

^ For Suppliers Credit refer note 12D

12C.Other Financial Liabilities

Details of other financial liabilities outstanding as at the reporting date are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Interest Accrued but not due	-	104	-	150
Liability for Capital Expenditure	113	800	53	439
Retention Amount Payable	5	107	6	111
Security and Other deposits	7	39	2	39
Unclaimed Dividends - (a)	-	6	-	6
Temporary Book Overdraft	-	6	-	2
	125	**1,062**	**61**	**747**

(a) This amount do not include any amount due and outstanding, to be credited to Investor Education and Protection Fund except ₹ 0.09 Crore (as at 31/03/2023 ₹ 0.09 Crore) which is held in abeyance due to legal cases pending.

12D.Supplier's Credit

Supplier's credit represents the extended interest bearing credit offered by the supplier which is secured against Usance Letter of Credit (LC). Under this arrangement, the supplier is eligible to receive payment from negotiating bank prior to the expiry of the extended credit period. The interest for the extended credit period payable to the bank on maturity of the LC has been presented under Finance Cost.

Critical accounting judgement and key sources of estimation uncertainty

The Company participates in various supply chain finance programs under which participating suppliers may voluntarily elect to sell some or all of their Company receivables to third-party financial institutions. Supplier participation in the programs is solely up to the supplier, and participating suppliers enter their arrangements directly with the financial institutions. The Company derecognises financial liability when the obligation under the liability is discharged or cancelled or expires. A significant amount of management judgement is involved in such arrangements to determine when an existing financial liability is replaced by another on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability.

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Supplier's Credit	4,475	5,635
	4,475	**5,635**

(a) Supplier's credit also includes amounts payable towards Accounts Receivable Purchase Scheme ("ARPS") entered into with the suppliers. Under this arrangement, the supplier is eligible to receive payment prior to the expiry of extended credit period by assigning such invoices to a third-party purchaser bank based on security in the form of an undertaking issued by the Company to the bank. Further, the supplier charges interest to the Company for the extended credit period which has been presented under Finance Cost.

Notes

forming part of the Standalone Financial Statements

12E. Trade Payables

Trade payables represent liabilities for goods and services provided to the Company and are unpaid at the end of the financial year. The amounts are unsecured and usually paid within time limits as contracted. Trade payables are presented as current liabilities unless the payment is not due within 12 months after the reporting period.

They are recognised initially at their transactional value which represents the fair value and subsequently measured at amortised cost using the effective interest method wherever applicable. Trade Payables arising out of a contract containing one or more embedded derivatives, and eligible for designation in its entirety as per Ind-AS 109 Financial Instruments, are subsequently measured at FVTPL.

The details of trade payables outstanding at the reporting date are as under:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Micro and Small Enterprises - (b)	-	149	-	161
Other than Micro and Small Enterprises - (c) and (d)	-	9,060	-	9,582
	-	**9,209**	**-**	**9,743**

(a) Trade Payables ageing schedule as at 31/03/2024 :

(₹ Crore)

S. No.	Particulars	Unbilled	Not due	Outstanding for following periods from due date of payment				Total
				Less than 1 year	1-2 years	2-3 years	More than 3 years	
(i)	Micro and Small Enterprises	23	72	49	3	1	1	**149**
(ii)	Others	929	3,792	4,179	66	33	61	**9,060**
(iii)	Disputed dues - Micro and Small Enterprises	-	-	-	-	-	-	**-**
(iv)	Disputed dues - Others	-	-	-	-	-	-	**-**
	Total	**952**	**3,864**	**4,228**	**69**	**34**	**62**	**9,209**

Trade Payables ageing schedule as at 31/03/2023 :

(₹ Crore)

S. No.	Particulars	Unbilled	Not due	Outstanding for following periods from due date of payment				Total
				Less than 1 year	1-2 years	2-3 years	More than 3 years	
(i)	Micro and Small Enterprises	12	103	39	5	1	1	**161**
(ii)	Others	893	5,380	3,161	82	16	50	**9,582**
(iii)	Disputed dues - Micro and Small Enterprises	-	-	-	-	-	-	**-**
(iv)	Disputed dues - Others	-	-	-	-	-	-	**-**
	Total	**905**	**5,483**	**3,200**	**87**	**17**	**51**	**9,743**

(b) Information related to Micro and Small Enterprises, as per the Micro, Small and Medium Enterprises Development Act, 2006 (MSME Development Act), are given below. The information given below have been determined to the extent such enterprises have been identified on the basis of information available with the Company:

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
(i)	Principal amount outstanding	146	159
(ii)	Interest on Principal amount due thereon	1	-
(iii)	Interest and Principal amount paid beyond appointed day	109	202
(iv)	The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed date during the year) but without adding the amount of interest specified under MSME Development Act.	1	2
(v)	The amount of interest accrued and remaining unpaid at the end of the year.	3	2
(vi)	The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest dues as above are actually paid to the Small enterprise, for the purpose of disallowance as a deductible expenditure under Section 23 of MSME Development Act.	3	2

(c) Refer Note 5F for Embedded derivative and non-derivative financial instruments used as hedging instruments.

(d) Refer Note 30 for balances with related parties.

13. Provisions

Provisions are recognized when there is a present obligation (legal or constructive) as a result of a past event and it is probable ("more likely than not") that it is required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the estimated cash flows to settle the present obligation, its carrying amount is the present value of those cash flows. The discount rate used is a pre-tax rate that reflects current market assessments of the time value of money in that jurisdiction and the risks specific to the liability.

The details of provisions outstanding as at reporting date are given below:

(₹ Crore)

	As at 31/03/2024			As at 31/03/2023		
	Non-Current	Current	Total	Non-Current	Current	Total
Asset Retirement Obligations	108	6	114	112	-	112
Environmental Liability	53	240	293	15	305	320
Enterprise Social Commitment	153	23	176	148	15	163
Legal Cases	-	337	337	-	304	304
Renewable Power Obligation	-	220	220	-	283	283
Miscellaneous Provisions	-	5	5	1	7	8
	314	**831**	**1,145**	**276**	**914**	**1,190**

Notes

forming part of the Standalone Financial Statements

(a) The details of provisions movement as at 31/03/2024 are given below:

(₹ Crore)

	As at 01/04/2023	Provision Made	Provision Reclassified	Provision Utilised	Provision Reversed	Unwinding of Discount	As at 31/03/2024
Assets Retirement Obligations	112	-	-	(2)	-	4	114
Environmental Liability	320	112	(6)	(55)	(79)	1	293
Enterprise Social Commitment	163	12	-	(8)	(1)	10	176
Legal Cases	304	34	-	-	(1)	-	337
Renewable Power Obligation	283	31	-	(43)	(51)	-	220
Miscellaneous Provisions	8	-	-	(2)	(1)	-	5
	1,190	**189**	**(6)**	**(110)**	**(133)**	**15**	**1,145**

The details of provisions movement as at 31/03/2023 are given below:

(₹ Crore)

	As at 01/04/2022	Provision Made	Provision Reclassified	Provision Utilised	Provision Reversed	Unwinding of Discount	As at 31/03/2023
Assets Retirement Obligations	110	-	-	(4)	-	6	112
Environmental Liability	262	106	-	(36)	(13)	1	320
Enterprise Social Commitment	148	25	-	(5)	(15)	10	163
Legal Cases	383	5	7	(87)	(4)	-	304
Renewable Power Obligation -(c)	148	73	-	94	(32)	-	283
Miscellaneous Provisions	12	-	-	(1)	(3)	-	8
	1,063	**209**	**7**	**(39)**	**(67)**	**17**	**1,190**

(b) Brief description of provision:

(i) Assets Retirement Obligations

Asset Retirement Obligation (ARO) is a legal or constructive obligation associated with the ash ponds, red mud ponds, ash pipeline and coal transportation system in refineries and mining land where the land needs to be restored back to a usable condition after closing of activities. This is a statutory requirement in which the timing or method of settlement may be conditional on one or multiple future events, the occurrence of which may not be within the control of the entity. The outflow of economic resources is expected over a period until Financial year 2047.

(ii) Environmental liabilities

Environmental Liability is associated with Wild Life Conservation Plan (WLCP) and disposal of hazardous material generated during the course of manufacturing or mining operation e.g. disposal of spent pot lining, disposal of Phospho Gypsum, Slag etc.

Environment liabilities are recognised when the Company becomes obliged, legally or constructively to rectify environmental damage or perform remediation work.

This disposal generally takes place as per the guidelines set by various regulatory authorities of States and Central Government. The outflow of economic resources is expected over a period until Financial year 2031. The effect of time value of money on the environmental liabilities is recognised in the statement of profit and loss as interest expense.

During the current year Provision made majorly includes provision against Fly ash disposal ₹ 45 Crore, disposal of spent pot lining ₹ 37 Crore, disposal of Phospho Gypsum amounting ₹ 27 Crore.

(iii) Enterprise Social Commitment

Enterprise Social Commitment is the amount to be spent on social and economic development of the surrounding area over a period of time where any new project is set up. Such obligation arises out of conditions mentioned in the Environment Clearance Certificate given by the Government for new projects and are generally defined as a percentage of total project cost. Present value of such future cash flows discounted at appropriate and applicable discount rates are capitalised against the obligation created. Actual cash flows that happen over the period are adjusted against the obligation. The effect of time value of money on the provision is recognised in the statement of profit and loss as interest expense.Enterprise Social Commitment also includes provision against Corporate Environment Responsibility (CER).

The outflow of economic resources is expected over a period until Financial year 2056.

(iv) Renewable Power Obligation

Some units of the Company situated in various states like Odisha, Madhya Pradesh, Maharashtra ,Gujarat, Jharkhand etc. who generate power from Captive power plants or procure power from open source, are obligated to purchase certain portion of their power consumption from Renewable Energy sources, both solar and non-solar. This gives rise to Renewable Power Obligation (RPO). In case the obligated units fail to procure power from such renewable sources, they need to meet the obligation by purchasing Renewable Energy Certificates from authorised energy exchanges as an alternative.

Renewable Power obligation is created to the extent any obligated unit is unable to source renewable energy as a replacement to carbon energy as per requirement of the applicable regulation during the reporting period and is carried in books till the obligation is discharged by purchasing Renewable Energy Certificate from any of the authorised exchanges.

(v) Legal Cases

The Company reviews the legal cases based on consideration of the information which becomes available up to the date on which the standalone financial statements are approved, on the basis of the same provision relating to legal, tax and other matters are recognised once it has been established that the Company has a present obligation since those events are probable to happen i.e. more likely than not but timing of occurrence of such events is uncertain as it depends on when the matter will be settled at the highest Court of law. In some cases, the Company entail seeking expert advice in making the determination on whether there is a present obligation.

(vi) Miscellaneous Provisions:

The Company discloses the provision which are not reported in any other categories seperately viz.statutory provisions related to, indirect taxes, coal cess etc under this head. There are few other provisions which are evalauted on each reporting date viz. Restructurings, Onerous contracts,Restoration (including Mine closure), rehabilitation and decommissioning.

(c) During 2017-18, while purchasing Non-Solar Renewable Energy Certificates (REC) to meet our obligation, the Company had to pay ₹ 500 per REC aggregating to ₹ 134 Crore as deposit to the REC Exchange in an Escrow account pursuant the directives from the Supreme Court of India. Provision for RPO as at 31/03/2022 was net of these REC deposits under escrow amount. During the year 2022-23, the REC Exchange has returned this amount against the bank guarantee provided by the Company. Accordingly, the provision has been adjusted for the same.

Notes

forming part of the Standalone Financial Statements

14. Employee Benefits

14A. Employee Benefits Expense

The details of employee benefit expenses are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Salaries and Wages	2,034	1,843
Post-Employment Benefits		
Defined Benefit Plans	125	121
Defined Contribution Plans	47	47
Employee Share-Based Payments		
Equity settled share-based payment	56	47
Cash settled share-based payment	3	(1)
Employee Welfare Expenses	209	183
	2,474	**2,240**
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	24	22
	2,450	**2,218**

(i) The Code on Social Security, 2020 ('Code') relating to employee benefits during employment and post employment benefits received Presidential assent in September 2020. The Code has been published in the Gazette of India. However, the date on which the Code will come into effect has not been notified. The Company will assess the impact of the Code when it comes into effect and will record any related impact in the period the Code becomes effective.

(ii) The Hon'ble Supreme Court of India ("SC") by their order dated 28/02/2019, in the case of Surya Roshani Limited v/s EPFO, set out the principles based on which allowances paid to the employees should be identified for inclusion in basic wages for the purposes of computation of Provident Fund contribution. The Company has given effect of the above judgement effective 01/03/2019. This does not have any material impact on the Financial Statements.

14B. Employee Benefit Obligations

Retirement benefits, medical plans and termination benefits

A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Payments to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them to the contributions.

For defined benefit retirement and medical plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yields of government bonds having terms approximating to the terms of related obligation.

Re-measurement, comprising of actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected in the balance sheet with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to the statement of profit and loss. Past service cost is recognised in the statement of profit and loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- *service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements);*
- *net interest expense or income; and*
- *re-measurements*

The Company presents the first two components of defined benefit costs in the statement of profit and loss in the line item employee benefits expense. Curtailment gains and losses are accounted for as past service costs.

The retirement benefit obligation recognised in the balance sheet represents the actual deficit or surplus in the Company's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

A liability for a termination benefit is recognised at the earlier of when the entity can no longer withdraw the offer of the termination benefit or when the entity recognises any related restructuring costs which involves the payment of terminations benefits.

Short-term and other long-term employee benefits

A liability is recognised for benefits accruing to employees in respect of wages and salaries in the period the related service is rendered at the undiscounted amount of the benefits expected to be paid in exchange for that service.

Liabilities recognised in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

Liabilities recognised in respect of other long-term employee benefits such as annual leave and sick leave are measured at the present value of the estimated future cash outflows expected to be made by the Company in respect of services provided by employees up to the reporting date. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit retirement plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to the statement of profit and loss in the period in which they arise. These obligations are valued annually by independent qualified actuaries.

The obligations are presented as current liabilities in the balance sheet if the entity does not have an unconditional right to defer settlement for at least twelve months after the reporting period, regardless of when the actual settlement is expected to occur.

Critical accounting judgement and key sources of estimation uncertainty

The Company provides both defined benefit employee retirement plans and defined contribution plans. Measurement of pension and other superannuation costs and obligations under such plans require numerous assumptions and estimates that can have a significant impact on the recognized costs and obligation, such as future salary level, discount rate, attrition rate and mortality.

The Company provides defined benefit plans to its employees. The discount rate is based on Government bond yield. Assumptions for salary increase in the remaining service period for active plan participants are based on expected salary increase in India. Changes in these assumptions can influence the net asset or liability for the plan as well as the pension cost.

Notes

forming part of the Standalone Financial Statements

Details of Employee benefits obligations are given below :

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Post employment defined Benefit Plans				
Gratuity	117	5	102	4
Pension	40	4	39	4
Post-Retiral Medical Benefit	4	1	4	-
Other Employee Benefit Plans				
Compensated Absences	-	304	-	271
Stock Appreciation Right	-	3	-	3
	161	**317**	**145**	**282**

(a) Post-Employment Benefits

The Company provides various benefit plan to its employees. Some of them are defined benefit in nature while some are contributory.

I. Defined Benefit Plans:

Major Post retiral defined benefit plans of the Company include Gratuity, Post retirement medical benefit and Provident Fund (to the extent of Company's obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis by Central Provident Fund Organisation of Government of India). The Company does Actuarial valuation for its identified defined benefit plans.

Methodology for actuarial valuation of Defined Benefit Obligations:

The Projected Unit Credit (PUC) actuarial method has been used to assess the plan's liabilities, including those related to death-in-service and incapacity benefits.

Under PUC method a projected accrued benefit is calculated at the beginning of the year and again at the end of the year for each benefit that will accrue for all active members of the plan. The projected accrued benefit is based on the plan's accrual formula and upon service as of the beginning or end of the year, but using a member's final compensation, projected to the age at which the employee is assumed to leave active service. The plan liability is the actuarial present value of the projected accrued benefits for active members.

Defined benefit plans expose the Company to actuarial risks such as: Interest Rate Risk, Salary Risk and Demographic Risk.

(i) Interest Rate Risk: While calculating the defined benefit obligation a discount rate based on government bonds yields of matching tenure is used to arrive at the present value of future obligations. If the bond yield falls, the defined benefit obligation will tend to increase and plan assets will decrease.

(ii) Salary risk: Higher than expected increases in salary will increase the defined benefit obligation.

(iii) Demographic risk: This is the risk of variability of results due to unsystematic nature of decrements that include mortality, withdrawal, disability and retirement. The effect of these decrements on the defined benefit obligations is not straight forward and depends on the combination of salary increase, discount rate and vesting criteria. It is important not to overstate withdrawals because in the financial analysis the retirement benefit of a short career employee typically costs less per year as compared to a long service employee.

(a) Gratuity Plans

The Company has various schemes (funded/unfunded) for payment of gratuity to all eligible employees calculated at specified number of days (ranging from 15 days to 1 month) of last drawn salary depending upon the tenure of service for each year of completed service subject to minimum service of five years payable at the time of separation upon superannuation or on exit otherwise. These defined benefit gratuity plans are governed by Payment of Gratuity Act, 1972.

(₹ Crore)

(i) Change in Defined Benefit Obligations (DBO)	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
DBO at the beginning of the year	1,038	106	1,144	1,009	101	1,110
Current service cost	38	7	45	38	7	45
Interest Cost on the DBO	75	8	83	70	7	77
Actuarial (gain)/ loss - experience	7	3	10	30	2	32
Actuarial (gain)/ loss - financial assumption	20	3	23	(39)	(5)	(44)
Benefits paid directly by Company	-	(5)	(5)	(47)	(6)	(53)
Benefits paid from plan assets	(85)	-	(85)	(23)	-	(23)
DBO at the end of the year	**1,093**	**122**	**1,215**	**1,038**	**106**	**1,144**

(₹ Crore)

(ii) Change in Fair Value of Plan Assets	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Fair Value of Plan Assets at the beginning of the year	1,185	-	1,185	1,114	-	1,114
Interest Income on plan assets	87	-	87	79	-	79
Employer's contributions	39	-	39	49	-	49
Return on plan assets greater/(lesser) than discount rate	61	-	61	(34)	-	(34)
Benefits Paid	(85)	-	(85)	(23)	-	(23)
Fair Value of Plan Assets at the end of the year	**1,287**	**-**	**1,287**	**1,185**	**-**	**1,185**

(₹ Crore)

(iii) Net Balance Sheet Position	As at 31/03/2024			As at 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
DBO	(1,093)	(122)	(1,215)	(1,038)	(106)	(1,144)
Fair Value of Plan Assets	1,287	-	1,287	1,185	-	1,185
Status - surplus/(deficit)	194	(122)	72	147	(106)	41
Funded surplus not recognised - (xiv)	(124)	-	(124)	(97)	-	(97)
Net defined benefit asset/(liability) recognised in the Balance Sheet	**70**	**(122)**	**(52)**	**50**	**(106)**	**(56)**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

(iv) Reconciliation of Net Balance Sheet Position	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Net Defined benefit asset/(Liability)at beginning of the year	50	(106)	(56)	-	(101)	(101)
Service cost	(38)	(7)	(45)	(38)	(7)	(45)
Net Interest on net defined benefit asset/ (liability)	12	(8)	4	9	(7)	2
Actuarial gain/loss and return on plan assets recognised in OCI	34	(6)	28	(25)	3	(22)
Funded surplus recognised/(not recognised) in OCI - (xiv)	(27)	-	(27)	8	-	8
Employer's contributions	39	-	39	49	-	49
Benefit paid directly by Company	-	5	5	47	6	53
Net Defined benefit asset/(liability)at the end of the year	**70**	**(122)**	**(52)**	**50**	**(106)**	**(56)**

(₹ Crore)

(v) Expense recognised during the year	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Current Service cost	38	7	45	38	7	45
Net Interest on net defined benefit liability/(asset)	(12)	8	(4)	(9)	7	(2)
Net Gratuity Cost	**26**	**15**	**41**	**29**	**14**	**43**

(₹ Crore)

(vi) Other Comprehensive Income(OCI)	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Actuarial (Gain)/ Loss due to DBO experience	7	3	10	30	2	32
Actuarial (Gain)/ Loss due to DBO assumption changes	20	3	23	(39)	(5)	(44)
Actuarial (Gain)/ Loss arising during the period	**27**	**6**	**33**	**(9)**	**(3)**	**(12)**
Return on Plan Assets (greater)/less than discount rate	(61)	-	(61)	34	-	34
Funded surplus (recognised)/not recognised in OCI - (xiv)	27	-	27	(8)	-	(8)
Actuarial (Gain)/ Loss recognised in OCI	**(7)**	**6**	**(1)**	**17**	**(3)**	**14**

(₹ Crore)

(vii) Defined Benefit Costs	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Service Cost	38	7	45	38	7	45
Net Interest on net defined benefit liability/(asset)	(12)	8	(4)	(9)	7	(2)
Actuarial (gain)/loss recognised in OCI	(34)	6	(28)	25	(3)	22
Funded surplus (recognised)/not recognised in OCI - (xiv)	27	-	27	(8)	-	(8)
Defined Benefit Cost	**19**	**21**	**40**	**46**	**11**	**57**

(viii) Principal Actuarial Assumptions	As at	
	31/03/2024	31/03/2023
Discount rate***	7.25%	7.50%
Salary escalation rate	7.50%	7.50%
Weighted average duration of the defined benefit obligation	8 years	8 years
Mortality Rate	Indian Assured Lives	
	Mortality (2006-08)	
	Ultimate	

***based on the market yields available on Government bonds at the accounting date with a term that matches that of the liabilities.

(₹ Crore)

(ix) Non-Current and Current of Employee Benefit Obligations	As at 31/03/2024			As at 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Current	45	(5)	40	50	(4)	46
Non-current	25	(117)	(92)	-	(102)	(102)
Assets/(Liabilities)	**70**	**(122)**	**(52)**	**50**	**(106)**	**(56)**

(x) Sensitivity analysis

Sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be co-related. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

(₹ Crore)

	Year ended 31/03/2024			Year ended 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Discount Rate						
Effect on DBO due to 1% increase in discount rate	(74)	(10)	(84)	(71)	(9)	(80)
Effect on DBO due to 1% decrease in discount rate	85	11	96	80	10	90
Salary Escalation Rate						
Effect on DBO due to 1% increase in salary escalation rate	84	11	95	79	10	89
Effect on DBO due to 1% decrease in salary escalation rate	(75)	(10)	(85)	(71)	(9)	(80)

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

(xi) The Expected Maturity Analysis of Undiscounted Gratuity, based on past service is as follows:	As at 31/03/2024			As at 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Within 1 year	68	5	73	66	4	70
From 1 year to 2 Year	105	8	113	97	5	102
From 2 year to 3 Year	104	10	114	100	7	107
From 3 year to 4 Year	106	9	115	98	8	106
From 4 year to 5 Year	111	10	121	98	9	107
From 5 year to 10 Year	529	61	590	508	54	562
Beyond 10 years	1,041	153	1,194	1,066	147	1,213

(xii) Composition of Plan Assets

Major categories of Plan Assets are as under: *	As at 31/03/2024			As at 31/03/2023		
	Funded	Unfunded	Total	Funded	Unfunded	Total
Cash & Bank Balances	1.28%	NA	1.28%	1.29%	NA	1.29%
Scheme of insurance - Conventional product	0.19%	NA	0.19%	0.19%	NA	0.19%
Scheme of insurance - ULIP product	98.53%	NA	98.53%	98.52%	NA	98.52%
	100.00%	**NA**	**100.00%**	**100.00%**	**NA**	**100.00%**

* Investment in Plan assets are unquoted.

(xiii) Expected Contributions to post employment benefit plan of Gratuity for the year ending 31st March, 2025 is Nil.

(xiv) The Company has not recognised the surplus in its plan assets of gratuity fund since no future economic benefits are expected in the form of reduction in future contributions to the gratuity plan or refund from the gratuity plan.

(b) Post Retirement Medical Benefit

This is a defined benefit plan where the Company provides post retirement medical benefit to its certain retired employees. The scheme involves reimbursement of expenses towards medical treatment of self and dependents. The amount debited to the Statement Profit and Loss during the year is ₹ 0.32 Crore (year ended 31/03/2023 ₹ 0.33 Crore) and amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ 0.15 Crore (year ended 31/03/2023 ₹ (2) Crore). The obligation with respect to said scheme as at 31/03/2024 ₹ 5 Crore (year ended 31/03/2023 ₹ 4 Crore).

(c) Other Pension Plan

It is a pension benefit provided to erstwhile Managing Director. The amount debited to statement of Profit and Loss during the year is ₹ 3 Crore (year ended 31/03/2023 ₹ 3 Crore). Amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ 1 Crore (year ended 31/03/2023 ₹ (2) Crore). The obligation with respect to these schemes as at 31/03/2024 ₹ 44 Crore (year ended 31/03/2023 ₹ 43 Crore).

(d) Provident Fund (Managed by Trust)

The Company's contribution towards Provident Fund managed by approved trusts, which are substantially defined benefit plan is debited to the Statement of Profit and Loss. The Company has an obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis by Central Provident Fund Organisation of Government of India.

(₹ Crore)

(i) Change in Defined Benefit Obligations (DBO)	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
DBO at the beginning of the year	2,739	918	3,657	2,590	858	3,448
Current service cost	64	17	81	58	17	75
Interest Cost on the DBO	208	67	275	163	60	223
Acquisitions cost	13	5	18	7	5	12
Actuarial (gain)/ loss - experience	(128)	1	(127)	519	4	523
Actuarial (gain)/ loss - financial assumption	(7)	9	2	(15)	(8)	(23)
Benefits paid directly by Company	-	-	-	-	-	-
Benefits paid from plan assets	(161)	(136)	(297)	(747)	(78)	(825)
Plan participants' contributions (including Voluntary Provident Fund)	180	61	241	164	60	224
DBO at the end of the year	**2,908**	**942**	**3,850**	**2,739**	**918**	**3,657**

(₹ Crore)

(ii) Change in Fair Value of Plan Assets	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Fair Value of Plan Assets at the beginning of the year	2,745	937	3,682	2,694	888	3,582
Acquisition adjustment	13	5	18	7	5	12
Interest Income on plan assets	209	68	277	170	62	232
Employer's contributions	64	17	81	58	17	75
Plan participants' contributions (including Voluntary Provident Fund)	180	61	241	164	60	224
Return on plan assets greater/(lesser) than discount rate	22	27	49	399	(17)	382
Benefits Paid	(161)	(136)	(297)	(747)	(78)	(825)
Fair Value of Plan Assets at the end of the year	**3,072**	**979**	**4,051**	**2,745**	**937**	**3,682**

(₹ Crore)

(iii) Net Balance Sheet Position	As at 31/03/2024			As at 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
DBO	(2,908)	(943)	(3,851)	(2,739)	(918)	(3,657)
Fair Value of Plan Assets	3,072	979	4,051	2,745	937	3,682
Status - surplus/(deficit)	164	36	200	6	19	25
Irrecoverable Surplus (Effect of Asset Celling)	(164)	(36)	(200)	(6)	(19)	(25)
Net defined benefit asset/(liability)	-	-	-	-	-	-

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

(iv) Reconciliation of Net Balance Sheet Position	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Net Defined benefit asset/(Liability)at beginning of the year	-	-	-	-	-	-
Service cost	(64)	(17)	(81)	(58)	(17)	(75)
Net Interest on net defined benefit liability/(asset)	-	-	-	-	-	-
Actuarial gain/loss and return on plan assets recognised in OCI	-	-	-	-	-	-
Employer's contributions	64	17	81	58	17	75
Benefit paid directly by Company	-	-	-	-	-	-
Acquisition credit/(cost)	-	-	-	-	-	-
Net Defined benefit asset/(liability)at the end of the year	-	-	-	-	-	-

(₹ Crore)

(v) Change in Irrecoverable Surplus	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
(Irrecoverable Surplus) at the end of Prior Period	(6)	(19)	(25)	(104)	(30)	(134)
Interest on (Irrecoverable Surplus)	(1)	(1)	(2)	(7)	(2)	(9)
Change in (Irrecoverable Surplus) in Excess of Interest	(157)	(16)	(173)	105	13	118
(Irrecoverable Surplus) at the end of current period	**(164)**	**(36)**	**(200)**	**(6)**	**(19)**	**(25)**

(₹ Crore)

(vi) Expense recognised during the year	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Current Service cost	64	17	81	58	17	75
Interest cost on DBO	208	67	275	163	60	223
Interest income on plan assets	(209)	(68)	(277)	(170)	(62)	(232)
Interest on (Irrecoverable Surplus)	1	1	2	7	2	9
Net Interest on net defined benefit liability/ (asset)	**64**	**17**	**81**	**58**	**17**	**75**

(₹ Crore)

(vii) Other Comprehensive Income(OCI)	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Actuarial (Gain)/ Loss due to DBO experience	(128)	1	(127)	519	4	523
Actuarial (Gain)/ Loss due to DBO assumption changes	(7)	9	2	(15)	(8)	(23)
Actuarial (Gain)/ Loss arising during the period	(135)	10	(125)	504	(4)	500
Return on Plan Assets (greater)/less than discount rate	(22)	(26)	(48)	(399)	17	(382)
Change in Irrecoverable Surplus other than Interest	157	16	173	(105)	(13)	(118)
Actuarial (Gain)/ Loss recognised in OCI	-	-	-	-	-	-

(₹ Crore)

(viii) Defined Benefit Costs	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Service Cost	64	17	81	58	17	75
Net Interest on net defined benefit liability/(asset)	-	-	-	-	-	-
Actuarial (gain)/loss recognised in OCI	-	-	-	-	-	-
Defined Benefit Cost	**64**	**17**	**81**	**58**	**17**	**75**

(ix) Principal Actuarial Assumptions	As at 31/03/2024		As at 31/03/2023	
	Fund I	Fund II	Fund I	Fund II
Discount rate (based on the market yields available on Government bonds at the accounting date with a term that matches that of the liabilities)	7.25%	7.25%	7.50%	7.50%
Expected rate of return on assets	8.40%	8.30%	8.30%	8.60%
Expected EPFO Return	8.15%	8.15%	8.15%	8.15%
Weighted average duration of the defined benefit obligation	9 years	9 years	9 years	9 years

(₹ Crore)

(x) Non-Current and Current of Employee Benefit Obligations	As at 31/03/2024			As at 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Current	-	-	-	-	-	-
Non-current	-	-	-	-	-	-
Assets/(Liabilities)	**-**	**-**	**-**	**-**	**-**	**-**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

(xi) The Expected Maturity Analysis of Undiscounted Provident Fund is as follows:	As at 31/03/2024			As at 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Within 1 year	218	68	286	152	59	211
From 1 year to 2 Year	167	66	233	149	36	185
From 2 year to 3 Year	287	95	382	263	86	349
From 3 year to 4 Year	365	136	501	323	101	424
From 4 year to 5 Year	414	129	543	347	123	470
From 5 year to 10 Year	2,401	819	3,220	2,196	781	2,977

(xii) Composition of Plan Assets@ Major categories of Plan Assets are as under:	As at 31/03/2024		As at 31/03/2023	
	Fund I	Fund II	Fund I	Fund II
Govt of India Securities	51.23%	47.16%	54.28%	50.31%
Debt Instrument & Related Instrument	28.28%	30.63%	28.47%	28.01%
Equity and related investment	13.81%	12.09%	10.44%	8.17%
Cash(Including Special deposits)	6.68%	10.12%	6.81%	13.51%
	100.00%	100.00%	100.00%	100.00%

@ Investment in Plan assets are quoted (excluding Cash).

(xiii) Sensitivity analysis

Sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be co-related. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

(₹ Crore)

Impact on provision - Increase / (Decrease)	Year ended 31/03/2024			Year ended 31/03/2023		
	Fund I	Fund II	Total	Fund I	Fund II	Total
Discount Rate						
Effect on DBO due to 1% increase in discount rate	(4)	(2)	(6)	(5)	(1)	(6)
Effect on DBO due to 1% decrease in discount rate	4	2	6	5	1	6

(₹ Crore)

Sensitivity Analysis for Discount Rate :-	Year ended	
	31/03/2024	31/03/2023
Pension		
Effect on DBO due to 1% increase in discount rate	(0)	(0)
Effect on DBO due to 1% decrease in discount rate	0	0
Post Retirement Medical		
Effect on DBO due to 1% increase in discount rate	(0)	(0)
Effect on DBO due to 1% decrease in discount rate	0	0

II. Defined Contribution Plans

The Company has certain defined contribution plans such as provident funds (not managed by Trust), superannuation fund and family pension fund for the benefit of the employees. The Contributions are made to registered funds/ organisation administered by the government. The obligation of the Company is limited to the amount contributed and it has no further contractual nor any constructive obligation.

(a) Pension

It is a contributory benefit plan where the Company contributes a certain percentage of salary for all eligible employees in the managerial cadre towards Superannuation Funds with option to put certain portion in National Pension Scheme (NPS) and/or in funds managed by Birla Sunlife Insurance Company to be converted to annuity of Life Insurance Corporation of India at retirement. The amount debited to statement of Profit and Loss during the year is ₹ 18 Crore (year ended 31/03/2023 ₹ 17 Crore).

(b) Provident Fund (Other than Trust)

In respect of certain employees, the Company's contribution towards Provident Fund as specified under the law is paid to the Regional Provident Fund Commissioner and is debited to the Statement of Profit and Loss. The Company also contributes to Coal Mines Provident Fund (CMPF) in respect of employees working in coal mines. The amount debited to Statement of Profit and Loss during the year is ₹ 29 Crore (year ended 31/03/2023 ₹ 30 Crore).

B. Other Employee Benefit plans

(a) Compensated Absences

The Compensated Absences cover the Company's liability for earned and sick leave. The entire amount of the provision of ₹ 304 Crore (year ended 31/03/2023 ₹ 271 Crore) is presented as current, since the Company does not have an unconditional right to defer settlement for these obligations. Expected amount towards settlement of Leave for the next 12 months are ₹ 39 Crore (31/03/2023 ₹ 44 Crore) .

(b) Employee Share-based Payments

Equity settled share-based payments to employees are measured at the fair value of the options at the grant date.

The fair value of option at the grant date is expensed over the respective vesting period in which all of the specified vesting conditions are to be satisfied with a corresponding increase in equity as "Employee Stock Options Account". In case of forfeiture of unvested option, portion of amount already expensed is reversed. In a situation where the vested option forfeited or expires unexercised, the related balance standing to the credit of the "Employee Stock Options Account" are transferred to the "Retained Earnings".

When the options are exercised, the Company issues new equity shares of the Company of ₹ 1/- each fully paid-up. The proceeds received and the related balance standing to credit of the Employee Stock Options Account, are credited to share capital (nominal value) and Securities Premium Account.

Share appreciation rights which are cash settled, are recognised as employee benefit expense over the relevant service period. The liability is fair valued at each reporting date and are presented as employee benefit obligations in the balance sheet.

Employee Stock Option Scheme administered by any independent trust is deemed as extended arm of the Company and is consolidated in the standalone financial statements. When the options are exercised, the trust transfers the appropriate number of shares to the employee. The proceeds received, net of any directly attributable transaction costs, are credited directly to equity.

Notes

forming part of the Standalone Financial Statements

The Company has formulated employee share-based payment schemes with the objective to attract and retain talent and align the interest of employees with the Company as well as to motivate them to contribute to its growth and profitability. The Company views employee stock options as instruments that would enable the employees to share the value they create for the Company in the years to come. At present, the following employee share-based payment schemes are in operation, details of which are given below:

(i) Employee Stock Option Scheme 2013 ("ESOS 2013"):

The shareholders of the Company has approved on 10/09/2013 an Employee Stock Option Scheme 2013 ("ESOS 2013"), under which the Company may grant not more than 5,462,000 Options (comprising of Stock Options and/ or Restricted Stock Units (RSU)) to the permanent employees in the management cadre and Managing and Whole time Directors of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2013 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The stock options exercise price would be determined by the Committee, whereas the RSUs exercise price shall be the face value of the equity shares of the Company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of ₹ 1/- each of the Company upon payment of exercise price during exercise period. The stock options will vest in 4 equal annual instalments after completion of one year of the services from the date of grant, whereas RSU will vest upon completion of three years of services from the date of grant. The maximum period of exercise is 5 years from the date of vesting and these stock option/ RSU do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/ expired stock options and RSUs are also available for grant.

In terms of ESOS 2013, till 31/03/2024 the Committee has granted 2,250,754 stock options and 2,252,254 RSUs (31/03/2023: 2,250,754 stock options and 2,252,254 RSUs) to the eligible employees of the Company and some of its subsidiary companies. Further, 301,381 stock options and 213,095 RSUs (31/03/2023: 301,381 stock options and 213,095 RSUs) has been forfeited/ expired and are available for grant as per term of the Scheme.

A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

	Year ended 31/03/2024				Year ended 31/03/2023			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP	Number	WAEP	Number	WAEP	Number	WAEP
Outstanding at beginning of the year	4,385	167.15	27,553	1.00	26,248	135.39	27,553	1.00
Granted during the year	-	-	-	-	-	-	-	-
Re-instated during the year	-	-	-	-	-	-	-	-
Forfeited during the year	-	-	-	-	-	-	-	-
Exercised during the year	(4,385)	167.15	(17,553)	1.00	(21,861)	129.02	-	-
Expired during the year	-	-	-	-	(2)	119.45	-	-
Outstanding at end of the year	-	-	10,000	1.00	4,385	167.15	27,553	1.00
Vested and Exercisable at year end	-	-	10,000	1.00	4,385	167.15	27,553	1.00

Under ESOS 2013, the range of exercise prices for stock options outstanding as at 31/03/2024 is Nil (31/03/2023: ₹ 119.45 to ₹ 167.15) whereas exercise price in case of RSUs is ₹ 1.00 (31/03/2023: ₹ 1.00). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2024 is Nil and 0.72 years, respectively (31/03/2023: 1.72 years and 1.72 years, respectively).

The weighted average share price at the date of exercise of ESOS 2013 was ₹ 423.70 per share (31/03/2023 ₹ 392.76 per share).

(ii) Employee Stock Option Scheme 2018 ("ESOS 2018"):

The shareholders of the Company has approved on 21/09/2018 an Employee Stock Option Scheme 2018 ("ESOS 2018"), formulated by the Company, under which the Company may grant not more than 13,957,302 [Stock Options and Restricted Stock Units('RSU')] to the permanent employees of the Company in management cadre including Managing and the Wholetime Director of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee") and the Hindalco Employees Welfare Trust ("Trust"). The Stock options exercise price would be determined by the Committee whereas the RSU exercise price shall be the face value of the equity shares of the Company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of ₹ 1/- each of the Company upon payment of exercise price during the exercise period. The Options and RSUs Granted under the Scheme 2018 shall vest, subject to compliance with the minimum vesting period of one year, within a period of four years for Options and of three years for RSUs from the Grant Date, in the manner set out in the respective vesting letters to be issued by the Company to the Grantees from time to time. The maximum period of exercise is 5 years from the date of vesting and these stock options/RSUs do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/expired stock options and RSUs are also available for grant. The options shall lapse in case of performance linked vesting conditions are not met.

In terms of ESOS 2018, till 31/03/2024 the Committee has granted 9,465,173 stock options and 2,766,817 RSUs (31/03/2023: 9,465,173 stock options and 2,766,817 RSUs) to the eligible employees of the Company and some of its subsidiary companies. Further, 1,249,195 stock options and RSUs 259,370 (31/03/2023: 1,143,828 stock options and RSUs 203,461) has been forfeited/ expired and are available for grant as per term of the Scheme. A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

	Year ended 31/03/2024				Year ended 31/03/2023			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP	Number	WAEP	Number	WAEP	Number	WAEP
Outstanding at beginning of the year	7,339,063	333.81	1,821,752	1.00	5,324,888	302.51	1,640,675	1.00
Granted during the year	-	-	-	-	2,402,670	395.45	785,278	1.00
Re-instated during the year	-	-	-	-	-	-	-	-
Forfeited during the year	(105,367)	403.66	(55,909)	1.00	(136,902)	384.73	(53,864)	1.00
Exercised during the year	(831,265)	241.83	(548,401)	1.00	(251,593)	232.43	(550,337)	1.00
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at end of the year	6,402,431	344.60	1,217,442	1.00	7,339,063	333.81	1,821,752	1.00
Vested and Exercisable at year end	4,343,814	313.65	265,604	1.00	3,720,192	261.63	640,908	1.00

Under ESOS 2018, the range of exercise prices for stock options outstanding as at 31/03/2024 was ₹ 159.30 to ₹ 453.95 (31/03/2023 was ₹ 159.30 to ₹ 453.95) whereas exercise price in case of RSUs was ₹ 1 (31/03/2023: ₹ 1). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2024 was 4.19 years and 5.54 years, respectively (31/03/2023 was 5.02 years and 5.90 years respectively).

The weighted average share price at the date of exercise of ESOS 2018 was ₹ 453.97 per share (31/03/2023 was ₹ 416.04 per share).

The fair values at grant date of stock options granted during the year ended 31/03/2024 was Nil (31/03/2023 was ₹ 159.32 to ₹ 215.70) and fair values in case of RSUs was Nil (31/03/2023 was ₹ 350.00 to ₹ 413.12), respectively. The fair valuation has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest for terms of options.

Notes

forming part of the Standalone Financial Statements

The details of options granted during the previous year, the key assumptions for Fair Value on the date of grant were as under :

Particulars	FY 2022-23					
	Tranche IX		Tranche X		Tranche XI	
	Stock Option	RSU	Stock Option	RSU	Stock Option	RSU
Grant date	22/07/2022	22/07/2022	11/11/2022	11/11/2022	09/02/2023	09/02/2023
Exercise price (₹)	375.95	1.00	415.10	1.00	436.50	1.00
Expected terms of options granted (years)	4.43 to 6.43 years	8 years	4.43 to 6.43 years	8 years	4.43 to 6.43 years	8 years
Share price on grant date (₹)	381.25	381.25	429.85	429.85	444.55	444.55
Expected volatility (%)	42.23%	42.23%	41.51%	41.51%	38.93%	38.93%
Expected dividend (%)	1.05%	1.05%	0.93%	0.93%	0.90%	0.90%
Risk free interest rate (%)	7.09% - 7.26%	7.23%	7.10% - 7.20%	7.23%	7.21% - 7.28%	7.29%

(iii) Employee Stock Option Scheme 2022 ("ESOS 2022"):

The shareholders of the Company has approved on 23/08/2022 an Employee Stock Option Scheme 2022 ("ESOS 2022"), formulated by the Company, under which the Company may grant not more than 16,828,000 [Stock Options and Performance Stock Units('PSU')] to its permanent employees of the Company in management cadre including Managing and the Wholetime Director of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2022 is administered by the Nomination, Remuneration and Compensation Committee of the Board of Directors of the Company ("the Committee") and the Hindalco Employees Welfare Trust ("Trust"). The Stock options exercise price shall be the Market Price of the Share or as may be determined by the Committee whereas the PSU exercise price shall be the face value of the Shares or as may be determined by the committee. Each stock option and each PSU entitles the holders to apply for and be allotted one fully paid-up equity share of Re. 1/- each of the Company upon payment of exercise price during the exercise period. The Options and PSUs Granted under the Scheme 2022 shall vest, subject to compliance with the minimum Vesting Period of one year, within a period of four years for from the Grant Date, in the manner set out in the respective vesting letters to be issued by the Company to the Grantees from time to time. The maximum period of exercise is 5 years from the date of vesting and these stock options/PSUs do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/expired stock options and RSUs are also available for grant. The options shall lapse in case of performance linked vesting conditions are not met.

In terms of ESOS 2022, till 31/03/2024 the Committee has granted 2,262,753 stock options and 317,023 PSUs (31/03/2023: NIL stock options and NIL PSUs) to the eligible employees of the Company and some of its subsidiary companies. A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

	Year ended 31/03/2024			
	Stock Options		PSUs	
	Number	WAEP	Number	WAEP
Outstanding at beginning of the year	-	-	-	-
Granted during the year	2,262,753	464.85	317,023	1.00
Re-instated during the year	-	-	-	-
Forfeited during the year	(5,770)	464.85	(809)	1.00
Exercised during the year	-	-	-	-
Expired during the year	-	-	-	-
Outstanding at end of the year	2,256,983	464.85	316,214	1.00
Vested and Exercisable at year end	-	-	-	-

Under ESOS 2022, the range of exercise prices for stock options outstanding as at 31/03/2024 is ₹ 464.85 (31/03/2023 was NIL) whereas exercise price in case of PSUs is ₹ 1 (31/03/2023: NIL). The weighted average remaining contractual life for the stock options and PSUs outstanding as at 31/03/2024 is 6.36 years and 7.36 years, respectively (31/03/2023 was NIL).

There was no exercise of options during the year within this scheme.

The fair values at grant date of stock options granted during the year ended 31/03/2024 was ₹ 143.25 to ₹ 197.85 (31/03/2023 was NIL) and fair values in case of PSUs was ₹ 443.36 (31/03/2023 was NIL) respectively. The fair valuation has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest for terms of options.

The details of options granted, the key assumptions for Fair Value on the date of grant are as under :

	FY 2023-24	
	Tranche I	
	Stock Option	PSU
Grant date	08/08/2023	08/08/2023
Exercise price (₹)	464.85	1.00
Expected terms of options granted (years)	2.91 to 4.91 years	3.58 years
Share price on grant date (₹)	454.75	454.75
Expected volatility (%)	38.74% to 43.19%	44.27%
Expected dividend (%)	0.66%	0.66%
Risk free interest rate (%)	6.99% to 7.03%	7.01%

The expected volatility is determined based on the historical share price volatility over the past period depending on life of the options granted which is indicative of future periods and which may not necessarily be the actual outcome.

(iv) Stock Appreciation Rights ('SAR 2018'):

The Company till 31/03/2024, has granted 196,064 Option SAR and 59,816 RSU SAR (31/03/2023: 196,064 Option SAR and 57,150 RSU SAR) under the Share Appreciation Rights Scheme 2018 ("SAR 2018") to its eligible employees. The Options and RSU SAR Granted shall vest, in the manner set out in the respective vesting letters to be issued by the Company to the Grantees from time to time.The SAR 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The SAR 2018 have performance linked vesting conditions which are decided by the committee and are cash settled. The options shall lapse in case of performance linked vesting conditions are not met.

A summary of movement of SAR and weighted average exercise price (WAEP) is given below:

	Year ended 31/03/2024				Year ended 31/03/2023			
	Option SARs		RSU SARs		Option SARs		RSU SARs	
	Number	WAEP	Number	WAEP	Number	WAEP	Number	WAEP
Outstanding at beginning of the year	120,444	270.70	30,736	1.00	97,927	236.82	29,996	1.00
Granted during the year	-	-	2,666	1.00	39,370	351.58	6,485	1.00
Forfeited during the year	-	-	-	-	-	-	-	
Exercised during the year	(33,952)	212.37	(6,990)	1.00	(16,853)	262.78	(5,745)	1.00
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at end of the year	**86,492**	**293.59**	**26,412**	**1.00**	**120,444**	**270.70**	**30,736**	**1.00**
Vested and Exercisable at year end	67,194	263.21	18,250	1.00	80,141	228.09	22,836	1.00

Notes

forming part of the Standalone Financial Statements

The range of exercise price of the Option SAR is ₹ 159.30 to ₹ 443.25 and RSU SAR is ₹ 1 (31/03/2023 : Option SAR is ₹ 159.30 to ₹ 443.25 and RSU SAR is ₹ 1). The fair values per Option SAR as at 31/03/2024 was ₹ 165.34 to ₹ 421.79 (31/03/2023 ₹ 102.54 to ₹ 274.24) and for RSU SAR as at 31/03/2024 was ₹ 546.73 to ₹ 556.37 (31/03/2023 ₹ 384.00 to ₹ 397.73). The fair value has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest. The assumptions used for fair valuation for Option SAR and RSU SAR are given below:

	As at 31/03/2024		As at 31/03/2023	
	Option SARs	RSU SARs	Option SARs	RSU SARs
Valuation Date	31/03/2024	31/03/2024	31/03/2023	31/03/2023
Exercise price (₹)	159.30 - 443.25	1.00	159.30 - 443.25	1.00
Expected volatility (%)	27.70%	27.70%	39.50%	39.50%
Expected dividend (%)	0.54%	0.54%	0.99%	0.99%
Risk Free interest rate (%)	6.91% - 7.04%	6.92% - 7.04%	7.04% - 7.14%	7.04% - 7.14%

The weighted average remaining contractual life for the Option SAR as at 31/03/2024 is 0.86 to 4.31 years (31/03/2023: 1.70 to 5.31 years) and RSU SAR as at 31/03/2024 is 0.98 to 4.31 years (31/03/2023: 1.70 to 5.31 years).

The total intrinsic value at the end of the year of the vested Option SAR and RSU SAR is ₹ 3.78 Crore (31/03/2023 ₹ 2.86 Crore). The liability for outstanding option is of ₹ 4 Crore (31/03/2023: ₹ 3 Crore).

Effect of Employee Share-Based Payment transactions on Profit or Loss for the period and on financial position:

For the year ended 31/03/2024, the Company recognised total expenses of ₹ 59 Crore (31/03/2023 ₹ 46 Crore) related to equity-settled and cash-settled share based transactions. During the year ended 31/03/2024, the Company has directly allotted 21,938 (31/03/2023: 21,861) fully paid-up equity shares of ₹ 1/- each of the Company on exercise of equity settled options for which the Company has realised ₹ 0.08 Crore (31/03/2023: ₹ 0.28 Crore) as exercise prices. The Company has also allotted 1,379,666 (31/03/2023: 801,930) fully paid-up equity share of ₹ 1/- each of the Company through its ESOP trust on exercise of equity settled options for which the Company has realised ₹ 20 Crore (31/03/2023: ₹ 6 Crore) as exercise prices.

The Company has received ₹ 0.81 Crore (31/03/2023 ₹ 0.66 Crore) from Utkal Alumina International Limited and Hindalco - Almex Aerospace Limited (Subsidiaries) towards the grant of 141,685 Stock Options and 81,834 RSUs (31/03/2023: 112,836 Stock Options and 77,790 RSUs) under ESOS 2018 which is netted off from Employee Share-Based Payments Expenses.

(c) Summary of Employee Benefits Obligations :

(₹ Crore)

		Year ended 31/03/2024		Year ended 31/03/2023		As at 31/03/2024	As at 31/03/2023
		Recognised in P&L	Recognised in OCI	Recognised in P&L	Recognised in OCI	Employee Benefits Obligations	Employee Benefits Obligations
(i)	**Defined Benefit Plans**						
	Gratuity Plans Employee	41	(1)	43	14	122	106
	Post Retirement Medical Benefit	-	-	-	(2)	5	4
	Other Pension	3	1	3	(2)	44	43
	Provident Fund (Managed by Trust)	81	-	75	-	-	-
		125	**-**	**121**	**10**	**170**	**153**
(ii)	**Defined Contribution Funds**						
	Pension	18	-	17	-	-	-
	Provident Fund (Other than Trust)	29	-	30	-	-	-
		47	**-**	**47**	**-**	**-**	**-**
(iii)	**Other Employee Benefit plans**						
	Stock Appreciation Rights	3	-	(1)	-	4	3
	Equity-settled share-based payment	56	-	47	-	-	-
		59	**-**	**46**	**-**	**4**	**3**
(iv)	**Compensated Absences**	**56**	**-**	**32**	**-**	**304**	**271**

(I) Expenses related to Compensated Absences are included in salaries and wages, Refer Note 14A.

(II) For (gain)/ loss recognised in Other Comprehensive Income (OCI), Refer Note 26.

Notes

forming part of the Standalone Financial Statements

15. Contract Liabilities

Contract liability is recognised when a payment is received from the customer before the Company transfers goods or services to the customer.

As these are contracts that the Company expects, and has the ability, to fulfil through delivery of a non-financial item, these are presented as advance from customers and are recognised as revenue as and when control of respective commodities is transferred or service is provided to the customers under the agreements.

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Advance from Customers	217	193
	217	**193**
(a) **Reconciliation of contract liabilities for the periods presented:**		
Balance at beginning of the year	**193**	**180**
Amount received during the year against which revenue has not been recognized	197	170
Revenue recognized during the year		
a) Contract liabilities at the beginning of the year	(173)	(157)
b) Performance obligations satisfied in previous years	-	-
Balance at end of the year	**217**	**193**

16. Other Non-Current and Current Liabilities

Liabilities that do not meet the criteria of classifying as financial liabilities, not reported in any other categories separately but are relevant to understand financial position of the Company are classified as other liabilities.

The details of other financial liabilities are given below:

(₹ Crore)

	As at 31/03/2024		As at 31/03/2023	
	Non-Current	Current	Non-Current	Current
Customer Refund Liability - (a)	-	185	-	139
Statutory Dues Payable	-	345	-	354
Deferred Income - (b)	650	171	622	26
Other Payable	30	73	32	51
	680	**774**	**654**	**570**

(a) Customer refund liability are recognised mainly for discount payable to customers.

(b) Represents deferred income in respect of grant related to Export Promotion Capital Goods (EPCG Scheme) amounting to ₹ 548 Crore (as at 31/03/2023 ₹ 568 Crore), Manufacture and Other Operations in Warehouse Regulations (MOOWR Scheme) amounting to ₹ 122 Crore (as at 31/03/2023 ₹ 80 Crore) and Advance Authorisation Scheme amounting to ₹ 151 Crore (as at 31/03/2023: Nil).

17. Revenue from Operations

The Company derives revenue principally from sale of hydrate, speciality alumina, aluminium and aluminium value added products, di-ammonium phosphate, copper, precious metals (gold and silver) and other materials.

The Company recognizes revenue when it satisfies a performance obligation in accordance with the contract with the customer. This is achieved when control of the product has been transferred to the customer, which is generally determined when legal title, physical possession, risk of obsolescence, loss and rewards of ownership pass to the customer and the Company has the present right to payment, all of which occurs at a point in time upon shipment or delivery of the product. In case of exports of goods, the Company considers shipping and handling activities as costs to fulfil the promise to transfer the related products and the customer payments for shipping and handling costs are recorded as a component of revenue.

In situations where revenue is recognized on shipment of goods, shipping and handling services are treated as a distinct separate performance obligation and the Company recognises revenue for such services when the performance obligation is completed and same are presented under the sale of services.

The Company considers the terms of the contract in determining the transaction price. The transaction price is based upon the amount the Company expects to be entitled to in exchange for transferring of promised goods and services to the customer after deducting incentive programs, including but not limited to discounts, volume rebates etc. Transaction price excludes taxes and duties collected on behalf of the government.

No element of significant financing is deemed present as the sales are made with a credit term, which is consistent with market practice. The Company's obligation to repair or replace faulty products under the standard warranty terms is recognised as a cost with a corresponding provision.

For certain customer contracts, final prices are determined based on the underlying market index of commodity prices at a future date, for example prices on the London Metal Exchange Limited (LME) or London Bullion Markets Association (LBMA). In such contracts, the Company records revenue on a provisional basis considering current market price when control is transferred to the customer. At the end of each period, prior to final settlement date, adjustments are made to the provisional sale price based on movements in the underlying market index of commodity prices up to the date of final price determination. Such variable price movement is accounted as other operating revenue.

Revenue from irrevocable bill and hold/ holding certificate contracts is recognised when it is probable that delivery will be made, goods have been identified and kept separately, are ready for delivery in the present condition and the Company does not have the ability to use the product or to direct it to another customer. Under these arrangements, revenue is recognised once legal title has passed and control of the asset sold is transferred to the customer.

Export incentives and subsidies are recognized when there is reasonable assurance that the Company will comply with the conditions and the incentive will be received.

Notes

forming part of the Standalone Financial Statements

Revenue excludes any taxes and duties collected on behalf of the government.

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Revenue from Contracts with Customers		
Sale of Products - (a)		
Domestic Sales	62,561	56,421
Export Sales	18,081	17,363
	80,642	**73,784**
Trade Sales - (b)	1,872	2,300
Sale of Services - (c)	102	319
	82,616	**76,403**
Other Operating Revenues - (a) and (d)	393	475
	83,009	**76,878**
Reconciliation of revenue recognised with contract price:		
Contract Price	**82,319**	**77,241**
Adjustments for:		
Refund Liabilities and discounts	(298)	(317)
Hedging Gain/ (Loss)	500	(624)
Others - Provisionally priced contracts	95	103
Revenue from Contracts with Customers	**82,616**	**76,403**

(a) Sales of Copper Products and Precious Metals are accounted for provisionally, pending finalization of price and quantity. Variations are accounted for in the year of settlement. Final price receivable on sale of above products for which quotational price was not finalized are realigned at year end forward LME/LMBA rate and is being presented as part of other operating revenue. Revenue from subsequent variation in price movement is gain of ₹ 22 Crore (year ended 31/03/23, gain of ₹ 12 Crore).

(b) Includes nutrient based subsidy received from Government of India arising from sale of Di ammonium phosphate (DAP) ₹ 707 Crore (year ended 31/03/23 ₹ 1,292 Crore) to farmers.

(c) Sale of services predominantly include freight and insurance on exports which are identified as separate performance obligation under Ind AS 115.

(d) Includes Government Grant in the nature of export related Incentives and other benefits of ₹ 313 Crore (year ended 31/03/2023 ₹ 400 Crore).

(e) The amount of revenue from external customers analysed by the country, in which customers are located, are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
India		
From customers	64,489	58,785
From export incentive and other benefits	313	400
Outside India		
China	1,776	667
Korea	2,794	4,321
Malaysia	2,198	2,145
Saudi Arabia	4,439	1,619
Others	7,000	8,941
Total Revenue from customers	**83,009**	**76,878**

(f) Applying the practical expedient as given in Ind AS 115, the Company has not disclosed the remaining performance obligations related disclosures for contracts where revenue recognized corresponds directly with value to the customer of the entity's performance completed to date.

(g) Refer Note 30 for related party transactions.

18. Other Income

Interest Income

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably. Interest income is accrued on a time proportion basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Interest Income, (Refer Note - 33(a)(iii))		
On Non-Current Investments	20	20
On Current Investments	18	14
On Others	316	256
Dividend Income, (Refer Note - 33(a)(iii))		
On Non-Current Investments - (b)	34	33
Rent Income	9	7
Income from Government Grants (c)	21	20
Gain/ (Loss) on Property, Plant and Equipment and Intangible Assets sold/ discarded (Net)	(28)	(31)
Gain/ (Loss) on Investments Measured at FVTPL (Net)		
On sale of Financial Assets	251	162
On change of Fair Value of Financial Assets	(16)	1
Other Non-Operating Income - (a)	78	104
	703	**586**

Notes

forming part of the Standalone Financial Statements

(a) Includes gain on modification of borrowings ₹ 48 Crore (year ended 31/03/2023 ₹ 48 Crore) resulting from change in benchmark interest rate and timing of expected cash flows on term loans.

(b) Refer Note 30 for related party transactions.

(c) Includes grant related to Export Promotion Capital Goods Scheme. There are no unfulfilled conditions or other contingencies attached to these grants.

19. Cost of Materials Consumed

The details of cost of material consumed are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Copper Concentrate - (a)	33,014	30,184
Alumina	4,573	4,351
Bauxite	701	739
Caustic Soda	562	764
Calcined Petroleum Coke	2,909	3,624
Copper Anode	1,122	1,302
Copper Cathodes	9,925	1,674
Pitch	829	1,060
Others	1,331	2,095
	54,966	**45,793**
Less: Transfer to Capital Work in Progress	(3)	-
	54,963	**45,793**

(a) Purchase of copper concentrate is accounted for provisionally pending finalization of contents in the concentrate and price. Variations are accounted for in the period of settlement. Final price payable on purchase of copper concentrate for which provisional price and quantity were not finalized during the year are realigned based on forward LME and LBMA rate. Impact on cost from subsequent variation in price movement for year ended 31/03/2024 was loss of ₹ 563 Crore (year ended 31/03/2023 loss of ₹ 405 Crore).

20. Purchases of Stock-in-Trade

The details of Purchases of Stock-in-Trade are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Aluminum Product	488	474
Fertilizer	1,254	1,073
Others	17	6
	1,759	**1,553**

21. Power and Fuel

The details of power and fuel are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Power and Fuel Expenses	9,092	11,323
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(5)	(5)
	9,087	**11,318**

22. Finance Cost

The Company amortize financing costs and premiums, and accrete discounts, over the remaining life of the related debt using the effective interest amortization method, unless the impact of utilizing the straight-line method results in an immaterial difference. General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. The Company considers a period of twelve months or more as a substantial period of time. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

Transaction costs in respect of long-term borrowings are amortised over the tenure of respective loans using effective interest method. All other borrowing costs are expensed in the period in which they are incurred.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

The details of finance costs are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Interest Expenses on Financial Liabilities not at FVTPL - (a)	1,269	1,224
Interest Expenses for Lease arrangements	55	47
Other Interest Expenses - (b) and (d)	32	60
Other Borrowing Costs	12	17
	1,368	**1,348**
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development (c)	100	48
	1,268	**1,300**

(a) Includes difference between effective interest rate and contracted interest rate of ₹ 56 Crore (year ended 31/03/2023 ₹ 59 Crore) mainly from amortization of debt issuance cost.

(b) Mainly includes Interest on direct and indirect taxes, Interest on MSME Liability, unwinding of discount on Enterprise Social Commitment and Asset Retirement Obligation [Refer Note - 13].

(c) The capitalisation rate used to determine the amount of borrowing costs to be capitalised is the weighted average interest rate applicable to general borrowings. Capitalisation rate for year ended 31/03/2024 is 8.63% p.a. (year ended 31/03/2023 - 6.61% p.a.). During the current year, ₹ 100 Crore (year ended 31/03/2023 ₹ 48 Crore) were transferred to Capital Work-in-Progress.

(d) Includes ₹ 8 Crore (Year ended 31/03/2023 ₹ Nil) paid to Income Tax department u/s 234C.

Notes

forming part of the Standalone Financial Statements

23. Impairment Loss /(Reversal) on Financial Assets (Net)

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Provision for Doubtful Debts, Loans and other financial assets/ (written back) (Net)	11	11
Impairment on Investment in Equity Share, Refer Note 5B (b)(iii)	-	1
	11	**12**

24. Other Expenses

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Consumption of Stores and Spares	947	868
Repairs to Buildings	194	156
Repairs to Machinery	1,625	1,402
Rates and Taxes	47	44
Equipment and Material Handling Expenses	213	246
Lease Expenses - (c)	206	224
Insurance Charges	122	134
Payment to Auditors - (a)	7	5
Research and Development	30	33
Freight and Forwarding Expenses (Net) - (b)	869	1,064
Donation - (d)	1	1
Non-Executive Directors' Fees and Commission	6	6
(Gain)/Loss on Foreign Currency Transactions (Net)	51	(117)
(Gain)/Loss in Change in Fair Value of Derivatives (Net)	(197)	507
Business Support Expenses	801	775
Miscellaneous Expenses	2,423	2,130
	7,345	**7,478**
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	27	31
	7,318	**7,447**

(a) `Details to Payment to Auditors are given below:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Statutory Auditors:		
Statutory Audit Fees	5	3
Other Services	2	2
Reimbursement of Out-of-Pocket Expenses	-	-
Cost Auditors:		
Cost Audit Fee and Expenses	-	-
	7	**5**

(b) Freight and forwarding expenses is net of freight subsidy of ₹ 35 Crore (year ended 31/03/2023 ₹ 29 Crore) received on sale of DAP.

(c) Lease expenses on account of Short Term Lease, Variable Lease and Low Value Lease on Low value assets are as follows :

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Short Term Leases	130	163
Variable lease	75	61
Leases of low value assets	1	-
Total	**206**	**224**

(d) Donation does not include any political donation.

(e) Refer Note 30 for related party transactions.

25. Exceptional Income/ (Expenses) (Net)

The Company considers certain items of income/ (expenses) as exceptional items are presented separately. These items are considered to be part of ordinary activities, however are of such significance and nature that separate disclosure enables the user of the financial statements to understand the impact in a more meaningful manner. Such items are identified by virtue of their size, nature and incidence so as to facilitate comparison with prior periods and to assess underlying trends in the financial performance of the Company.

Details of Exceptional Income/ (Expenses) as follows:

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Exceptional Income:		
Reversal of provision made during the previous year towards Cross Subsidy Surcharge (CSS) and Additional Surcharge (ASC) related to FY 2017-18 and FY 2018-19. This reversal was affected pursuant to the undertaking given by MSEDCL (Maharashtra State Electricity Distribution Co. Ltd.) to Maharashtra Electricity Regulatory Commission (MERC) on 29/07/2022, to refund CSS and commencement of ASC refund.	-	41
During FY 2022, pursuant to the notifications issued by the Ministry of Environment, Forest and Climate Change (MoEFCC), the Compa-ny had recognised provision for expected cost of disposal of legacy ash lying in ash dykes/ponds. During the year ended March 31, 2024, in view of the regulatory approval received on closure of few ash dykes/ ponds, the Company has reversed provision which is accounted as an Exceptional Income.	63	-
Total (A)	**63**	**41**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

	Year ended	
	31/03/2024	31/03/2023
Exceptional Expenses:		
Pursuant to the notification by Ministry of Environment, Forest and Climate Change (MoEFCC), the Company has recognised provision for expected cost of disposal of legacy ash lying in ash dykes/ponds. The above provision is estimated based on the plan for disposal of ash and stabilisation of ash dykes/ponds (subject to approval of Pollution Control Board) considering feasibility of extraction of ash from ash dykes/ponds.	(42)	-
Total (B)	**(42)**	**-**
Net (A -B)	**21**	**41**

26. Other Comprehensive Income/ (Loss)

The disaggregation of changes to other comprehensive income (OCI) by each class is given below:

(₹ Crore)

		Year ended 31/03/2024			Year ended 31/03/2023		
		Gross	Tax	Net	Gross	Tax	Net
(i)	**Items that will not be reclassified to Statement of Profit and Loss**						
	Remeasurement of Defined Benefit Obligation (Refer Note - 23B)	-	-	-	(10)	3	(7)
	Change in Fair Value of Equity Instruments Designated as FVTOCI	2,704	(299)	2,405	(485)	34	(451)
		2,704	(299)	2,405	(495)	37	(458)
(ii)	**Items that will be reclassified to Statement of Profit and Loss**						
	Change in Fair Value of Debt Instruments designated as FVTOCI	6	(2)	4	(13)	4	(9)
	Effective portion of Cash Flow Hedges	(216)	75	(141)	3,269	(1,142)	2,127
	Cost of Hedging Reserve	(36)	13	(23)	64	(22)	42
		(246)	86	(160)	3,320	(1,160)	2,160
	Total Other Comprehensive Income/ (Loss)	**2,458**	**(213)**	**2,245**	**2,825**	**(1,123)**	**1,702**

27. Earnings per Share (EPS)

Basic earnings per share is computed by dividing the net profit for the period attributable to the equity shareholders of the Company by the weighted average number of equity shares outstanding during the period. The weighted average number of equity shares outstanding during the period and for all periods presented is adjusted for events, such as bonus shares, other than the conversion of potential equity shares that have changed the number of equity shares outstanding, without a corresponding change in resources. Partly paid-up shares are included as fully paid equivalents according to the fraction paid-up.

Diluted earnings per share adjusts the figures used in the determination of basic earnings per share to take into account the after income tax effect of interest and other financing costs associated with dilutive potential equity shares and the weighted average number of additional equity shares that would have been outstanding assuming the conversion of all dilutive potential equity shares.

Treasury shares are excluded from weighted average numbers of equity shares used as a denominator in the calculation of basic as well as diluted earnings per share.

Earning per share, earnings and number of shares are used as under:

	(₹ Crores unless otherwise stated)	
	Year ended	
	31/03/2024	31/03/2023
Profit attributable to Equity Shareholders	3,697	3,326
Weighted average numbers of equity shares for calculation of EPS:		
Weighted-average numbers of equity shares for Basic EPS	2,221,621,353	2,222,884,407
Dilutive impact of Employee Stock Option Scheme	2,778,249	2,922,977
Weighted-average numbers of equity shares for Diluted EPS	2,224,399,602	2,225,807,384
Face Value per Equity Share (₹)	1.00	1.00
Earnings per Share		
Basic (₹)	16.64	14.96
Diluted (₹)	16.62	14.94

Stock options granted to the employees under various ESOP schemes are considered to be potential equity shares. They have been included in the determination of diluted earnings per share to the extent they are dilutive. 469,370 shares (year ended 31/03/2023 833,136 Shares) options granted under Employee Stock option scheme but were not included in the calculation of diluted earnings per share because they are antidilutive for the period. Options can potentially dilute basic earnings per share in the future depending on future share price of the Company. The stock options have not been included in the determination of basic earnings per share. For details relating to stock options, Refer Note 14B(b).

Notes

forming part of the Standalone Financial Statements

28. Government Grants

Government grants are recognized at fair value when there is reasonable assurance that we will comply with the conditions attached to them and that the grants will be received.

Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are recognized in the balance sheet by setting up the grant as deferred income.

Grants arising on acquisition of non-current assets are accounted as deferred income and amortization is recognised in 'Other Income' on straight line basis over the expected useful lives of related assets.

Other government grants (grants related to income) are recognized as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of providing immediate financial support with no future related costs are recognized in the statement of profit and loss in the period in which they become receivable.

Grants related to income are presented under 'Other Income' or 'Other Operating Revenue' in the statement of profit and loss depending upon the nature of the underlying grant, except for grants received in the form of rebate or exemptions related to expenditures, which are deducted in reporting the related expense.

The Company is eligible for Export Promotion Capital Goods (EPCG), Manufacture and other Operations in Warehouse Regulations (MOOWR) Scheme, Advance Authorisation (AA) Scheme and Other Miscellaneous grants.

Export Promotion Capital Goods (EPCG)

Under EPCG scheme, the Company imports capital goods without payment of customs duty and in return the Company is required to fulfil export obligation within certain years equivalent to certain times of duty that has been saved while importing. Grants are recognised in "Capital Work In Progress/Non-Current Asset" (PPE) at fair value with the corresponding recognition under deferred income.

Manufacture and other Operations in Warehouse Regulations (MOOWR) Scheme

Under the MOOWR Scheme, the Company conducts manufacturing or other operations in a Customs bonded warehouse and imports goods under customs duty deferment. The deferment stands without any time limitation. Grants are recognised in "Capital Work In Progress/Non-Current Asset" (PPE) at fair value with the corresponding recognition under deferred income.

Advance Authorisation

Advance Authorization licenses are issued against import of inputs which are used in manufacturing of an export product and there is obligation to export the finished goods. Thus, the Company accounts it in nature of "Income" as "Revenue Approach". Grants are recognised in Inventory at the fair value of grant i.e., the duty saved.

Other Miscellaneous grants

Other Export incentive includes RoDTEP scheme on Export, Duty Drawback on Export, ES Certificate and others. These are directly accounded under "Revenue"

Refer Note 16(b) for the details of Capital grant outstanding as "Deffered Income".

Refer Note 17(d) for the details of export related Incentives and other benefits recognised under "Other Operating Revenues".

Refer Note 18(b) for the details of EPCG grant recognised under "Other Income".

Refer Note 24(b) for the details of Freight Subsidy recognised as net of Freight and Forwarding Expenses under "Other Expenses".

29. Segment Information

The Company has presented segment information in its Consolidated Financial Statements, which are part of the same annual report. Accordingly, in terms of provisions of Accounting Standard on Segment Reporting (Ind AS 108), no disclosure related to the segment are presented in the Standalone Financial Statements.

30. Related party disclosures

List of the related parties required to be given as per Ind AS 24 - Related Party Disclosure, and the details of transactions and balances between the Company and its related parties required to be disclosed are as follows:

A. List of Related Parties where control exists:

		Name of the Related Party	Principal Place of Business
(a)		**Subsidiary Companies:**	
	1	Minerals & Minerals Limited	India
	2	Renukeshwar Investments & Finance Limited	India
	3	Renuka Investments & Finance Limited	India
	4	Lucknow Finance Company Limited	India
	5	Dahej Harbour and Infrastructure Limited	India
	6	Utkal Alumina International Limited	India
	7	Birla Copper Asoj Private Limited	India
	8	AV Minerals (Netherlands) N.V.	Netherland
	9	Novelis Inc.	Canada
	10	Novelis do Brasil Ltda. - (iv)	Brazil
	11	Brecha Energetica Ltda. - (iv)	Brazil
	12	4260848 Canada Inc. - (iv)	Canada
	13	4260856 Canada Inc. - (iv)	Canada
	14	8018227 Canada Inc. - (iv)	Canada
	15	Novelis (China) Aluminum Products Co., Ltd. - (iv)	China
	16	Novelis (Shanghai) Aluminum Trading Co., Ltd. - (iv)	China
	17	Novelis Ventures LLC - (iv)	USA
	18	Novelis PAE SAS - (iv)	France
	19	Novelis Aluminium Beteiligungs GmbH - (iv)	Germany
	20	Novelis Deutschland GmbH - (iv)	Germany
	21	Novelis Sheet Ingot GmbH - (iv)	Germany
	22	Novelis Aluminum Holding Unlimited Company - (iv)	Ireland
	23	Novelis Italia SpA - (iv)	Italy
	24	Novelis de Mexico S.A. de C.V. - (iv)	Mexico
	25	Novelis Korea Limited - (iv)	South Korea
	26	Novelis AG - (iv)	Switzerland
	27	Novelis Switzerland S.A. - (iv)	Switzerland
	28	Novelis MEA Ltd. - (iv)	UAE
	29	Novelis Europe Holdings Limited - (iv)	UK

Notes

forming part of the Standalone Financial Statements

	Name of the Related Party	Principal Place of Business
30	Novelis UK Ltd. - (iv)	UK
31	Novelis Services Limited - (iv)	UK
32	Novelis Corporation - (iv)	USA
33	Novelis South America Holdings LLC - (iv)	USA
34	Novelis Holdings Inc. - (iv)	USA
35	Novelis Services (North America) Inc. - (iv)	USA
36	Novelis Global Employment Organization, Inc. - (iv)	USA
37	Novelis Services (Europe) Inc. - (iv)	USA
38	Novelis Vietnam Company Limited - (iv)	Vietnam
39	Aleris Asia Pacific International (Barbados) Ltd. - (iv)	Barbados
40	Novelis Aluminum (Zhenjiang) Co., Ltd. (formerly known as "Aleris Aluminum (Zhenjiang) Co., Ltd.") - (iv)	China
41	Aleris (Shanghai) Trading Co., Ltd. - (i)	China
42	Aleris Asia Pacific Limited - (iv)	Hong Kong
43	Aleris Aluminum Japan, Ltd. - (iv)	Japan
44	Novelis Casthouse Germany GmbH - (iv)	Germany
45	Novelis Deutschland Holding GmbH - (iv)	Germany
46	Novelis Koblenz GmbH - (iv)	Germany
47	Novelis Netherlands B.V. - (iv)	Netherlands
48	Aleris Switzerland GmbH - (iv)	Switzerland
49	Aleris Aluminum UK Limited - (ii)	UK
50	Aleris Holding Canada ULC - (iii)	Canada
51	Novelis ALR Aluminum Holdings Corporation - (iv)	USA
52	Novelis ALR International, Inc. - (iv)	USA
53	Novelis ALR Rolled Products, LLC - (iv)	USA
54	Novelis ALR Rolled Products, Inc. - (iv)	USA
55	Novelis ALR Aluminum, LLC - (iv)	USA
56	Novelis ALR Rolled Products Sales Corporation - (iv)	USA
57	Novelis ALR Recycling of Ohio, LLC - (iv)	USA
58	Novelis ALR Aluminum-Alabama, LLC - (iv)	USA
59	Novelis ALR Asset Management Corporation - (iv)	USA
60	White Rock USA Protected Cell 24 - (iv)	USA
61	Hindalco Kabushiki Kaisha	Japan
62	Utkal Alumina Social Welfare Foundation	India
63	Kosala Livelihood and Social Foundation	India
64	Suvas Holdings Limited	India
65	Hindalco-Almex Aerospace Limited	India
66	East Coast Bauxite Mining Company Private Limited	India

		Name of the Related Party	Principal Place of Business
(b)		**Trust Controlled by the Company**	
	1	Hindalco Jan Seva Trust	India
	2	Copper Jan Seva Trust	India
	3	Utkal Alumina Jan Seva Trust	India

During the year ended 31/03/2024 :

(i) Aleris (Shanghai) Trading Co., Ltd. was dissolved on December 01, 2023.

(ii) Aleris Aluminum UK Limited was dissolved on January 30, 2024.

(iii) Aleris Holding Canada ULC was dissolved on February 13, 2024.

(iv) Subsidiaries of Novelis Inc.

B. List of Related Parties with joint control and significant influence:

		Name of the Related Party	Principal Place of Business
(a)		**Joint Ventures (Joint Control):**	
	1	MNH Shakti Limited	India
	2	Hydromine Global Minerals (GMBH) Limited	British Virgin Islands
(b)		**Associates (Significant Influence):**	
	1	Aditya Birla Science & Technology Company Private Limited	India
	2	Aditya Birla Renewables Subsidiary Limited	India
	3	Aditya Birla Renewables Solar Limited	India
	4	Aditya Birla Renewables Utkal Limited	India
	5	Deutsche Aluminum Verpachung Recycling GMBH	Germany
	6	France Aluminum Recyclage SPA.	France
	7	Ayana Renewable Power Four Private Limited	India
	8	Big Blue Technologies Inc.	USA

C. Key Managerial Personnel

1	Mr. Satish Pai - Managing Director	Executive Director
2	Mr. Praveen Kumar Maheshwari - Whole time Director & Chief Financial Officer	Executive Director
3	Mr. Kumar Mangalam Birla	Non Executive Director
4	Smt. Rajashree Birla	Non Executive Director
5	Mr. A.K. Agarwala	Non Executive Director
6	Mr. K.N. Bhandari	Non Executive Director
7	Mr. Y.P. Dandiwala	Non Executive Director
8	Mr. Anant Maheshwari (Resigned w.e.f. October 18, 2023)	Non Executive Director
9	Ms. Alka Bharucha	Non Executive Director
10	Dr. Vikas Balia	Non Executive Director
11	Mr. Sudhir Mital	Non Executive Director

Notes

forming part of the Standalone Financial Statements

	Name of the Related Party	Principal Place of Business
D. Other Related Parties with whom there were transactions during the year:		
1	Hindalco Employee's Gratuity Fund	Post-Employment Benefit Plan
2	Hindalco Employee's Provident Fund Institution	Post-Employment Benefit Plan
3	Hindalco Superannuation Scheme, Renukoot	Post-Employment Benefit Plan
4	Hindalco Industries Limited Employees' Provident Fund II	Post-Employment Benefit Plan
5	Hindalco Industries Limited Senior Management Staff Pension Fund II	Post-Employment Benefit Plan
6	Aditya Birla Management Corporation Private Limited @	Other related party in which Director is interested

@ The Company is a member of Aditya Birla Management Corporation Private Limited (ABMCPL), a company limited by guarantee formed for the purpose of its members to mutually avail and share common facilities, expertise and other support charged on cost basis.

E. The following transactions were carried out with the related parties in the ordinary course of business:

Nature of Transaction**@	Year Ended 31/03/2024			Year Ended 31/03/2023		
	Subsidiaries	Associates	Others	Subsidiaries	Associates	Others
Sale of Goods	**359**	**-**	**-**	**288**	**2**	**-**
Aditya Birla Renewables Subsidiary Limited	-	-	-	-	2	-
Birla Copper Asoj Private Limited	294	-	-	129	-	-
Hindalco Almex Aerospace Limited	42	-	-	59	-	-
Hindalco K.K. Japan	23	-	-	-	-	-
Utkal Alumina International Limited	-	-	-	100	-	-
Services rendered	**-**	**-**	**12**	**-**	**-**	**11**
Aditya Birla Management Corporation Private Limited	-	-	12	-	-	11
Interest received	**10**	**2**	**-**	**12**	**2**	**-**
Aditya Birla Science and Technology Company Private Limited	-	2	-	-	2	-
Birla Copper Asoj Private Limited	10	-	-	12	-	-
Dividend received	**-**	**1**	**-**	**-**	**-**	**-**
Aditya Birla Renewables Subsidiary Limited	-	1	-	-	-	-
Purchase of Goods	**4,452**	**57**	**-**	**4,310**	**33**	**-**
Aditya Birla Renewables Solar Limited	-	43	-	-	20	-
Aditya Birla Renewables Subsidiary Limited	-	14	-	-	13	-
Birla Copper Asoj Private Limited	1	-	-	-	-	-
Hindalco Almex Aerospace Limited	9	-	-	16	-	-

Nature of Transaction**@	Year Ended 31/03/2024			Year Ended 31/03/2023		
	Subsidiaries	Associates	Others	Subsidiaries	Associates	Others
Kosala Livelihood and Social Foundation	1	-	-	1	-	-
Minerals & Minerals Limited	70	-	-	57	-	-
Novelis PAE SAS	8	-	-	3	-	-
Suvas Holdings Limited	3	-	-	4	-	-
Utkal Alumina International Limited	4,360	-	-	4,229	-	-
Purchase of property and other assets	**5**	**-**	**-**	**2**	**-**	**-**
Novelis PAE SAS	1	-	-	1	-	-
Utkal Alumina International Limited	4	-	-	1	-	-
Services received	**98**	**21**	**810**	**95**	**19**	**783**
Aditya Birla Science and Technology Company Private Limited	-	21	-	-	19	-
Aditya Birla Management Corporation Private Limited	-	-	801	-	-	775
Copper Jan Seva Trust	-	-	7	-	-	7
Hindalco Jan Seva Trust	-	-	2	-	-	1
Birla Copper Asoj Private Limited	62	-	-	58	-	-
Dahej Harbour and Infrastructure Limited	20	-	-	28	-	-
Lucknow Finance Company Limited	1	-	-	1	-	-
Novelis Global Employment Organization Inc	13	-	-	5	-	-
Novelis Inc	-	-	-	1	-	-
Novelis Koblenz GmbH	2	-	-	2	-	-
Recovery of ESOP Expenses	**1**	**-**	**-**	**1**	**-**	**-**
Utkal Alumina International Limited	1	-	-	1	-	-
Investments made	**4**	**26**	**-**	**5**	**17**	**-**
Aditya Birla Renewables Solar Limited	-	18	-	-	17	-
Hindalco K.K. Japan	1	-	-	2	-	-
Kosala Livelihood and Social Foundation	3	-	-	3	-	-
Ayana Renewable Power Four Private Limited	-	8	-	-	-	-

Notes

forming part of the Standalone Financial Statements

Nature of Transaction**@	Year Ended 31/03/2024			Year Ended 31/03/2023		
	Subsidiaries	Associates	Others	Subsidiaries	Associates	Others
Deposits, Loans and Advances made	**76**	**-**	**-**	**1**	**-**	**-**
Suvas Holdings Limited	1	-	-	1	-	-
Utkal Alumina International Limited	75	-	-	-	-	-
Return of Capital -$	**-**	**-**	**-**	**622**	**-**	**-**
AV Minerals (Netherlands) N.V.	-	-	-	622	-	-
Deposits, Loans and Advances received back from	**111**	**5**	**-**	**30**	**7**	**-**
Aditya Birla Science and Technology Company Private Limited	-	5	-	-	7	-
Birla Copper Asoj Private Limited	35	-	-	27	-	-
Suvas Holdings Limited	1	-	-	3	-	-
Utkal Alumina International Limited	75	-	-	-	-	-
Reimbursement of Expense from	**2**	**-**	**1**	**1**	**-**	**1**
Aditya Birla Management Corporation Private Limited	-	-	1	-	-	1
Dahej Harbour and Infrastructure Limited	1	-	-	1	-	-
Utkal Alumina International Limited	1	-	-	-	-	-
Reimbursement of Expense to	**7**	**-**	**2**	**9**	**1**	**-**
Aditya Birla Science and Technology Company Private Limited	-	-	-	-	1	-
Aditya Birla Management Corporation Private Limited	-	-	2	-	-	-
Dahej Harbour and Infrastructure Limited	7	-	-	9	-	-

$ Includes return of capital from AV Minerals (Netherlands) N.V. amounting to Nil (year ended 31/03/2023: ₹ 622 Crore) Foreign Currency Exchange gain of Nil (year ended 31/03/2023: ₹ 171 Crore) there on recognised in Note 24, Other Expenses under (Gain)/Loss on Foreign Currency Transactions (Net).

@ For transactions with funds covered under Post-Employment Benefit Plan Refer Note 14B .

F. The following are the Outstanding balances with the Related parties: #

(₹ Crore)

Nature of Transaction**	As at 31/03/2024			As at 31/03/2023		
	Subsidiaries	Associates	Others	Subsidiaries	Associates	Others
Receivables	**55**	**-**	**1**	**41**	**-**	**-**
Aditya Birla Management Corporation Private Limited	-	-	1	-	-	-
Birla Copper Asoj Private Limited	38	-	-	40	-	-
Hindalco K.K. Japan	17	-	-	-	-	-
Utkal Alumina International Limited	-	-	-	1	-	-
Payables	**472**	**8**	**-**	**460**	**4**	**90**
Aditya Birla Renewables Solar Limited	-	7	-	-	3	-
Aditya Birla Renewables Subsidiary Limited	-	1	-	-	1	-
Aditya Birla Management Corporation Private Limited	-	-	-	-	-	90
Birla Copper Asoj Private Limited	3	-	-	5	-	-
Dahej Harbour and Infrastructure Limited	5	-	-	3	-	-
Minerals & Minerals Limited	-	-	-	2	-	-
Novelis Global Employment Organization Inc	5	-	-	8	-	-
Novelis Inc	1	-	-	1	-	-
Novelis Koblenz GmbH	-	-	-	3	-	-
Novelis PAE SAS	6	-	-	4	-	-
Utkal Alumina International Limited	452	-	-	434	-	-
Deposits, loans and advances given	**112**	**24**	**34**	**150**	**29**	**94**
Aditya Birla Science and Technology Company Private Limited	-	24	-	-	29	-
Aditya Birla Management Corporation Private Limited	-	-	26	-	-	88
Copper Jan Seva Trust	-	-	8	-	-	6
Birla Copper Asoj Private Limited	102	-	-	137	-	-
Minerals & Minerals Limited	7	-	-	8	-	-
Novelis PAE SAS	1	-	-	2	-	-
Suvas Holdings Limited	2	-	-	3	-	-

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

Nature of Transaction**	As at 31/03/2024			As at 31/03/2023		
	Subsidiaries	Associates	Others	Subsidiaries	Associates	Others
Receivable against reimbursement	**-**	**-**	**1**	**-**	**-**	**1**
Aditya Birla Management Corporation Private Limited	-	-	1	-	-	1
Payable against reimbursement	**-**	**-**	**2**	**-**	**-**	**-**
Aditya Birla Management Corporation Private Limited	-	-	2	-	-	-
Guarantees and Collateral Securities given	**5**	**-**	**-**	**5**	**-**	**-**
Dahej Harbour and Infrastructure Limited	5	-	-	5	-	-

all outstanding balances are unsecured and are payable in cash.

** Related parties having transactions / Balances less than ₹ 0.50 Crore are not disclosed as the amounts are below rounding off convention.

For details of investment in Subsidiaries, Joint Ventures and Associates (Refer Notes 5A and 5B)

G. Compensation of Key Managerial Personnel (KMP) of the Company:

(₹ Crore)

Nature of Transaction / Relationship	Year Ended 31/03/2024	Year Ended 31/03/2023
Remuneration of Executive Directors	**38**	**45**
Short term employment benefit	36	43
Post-employment benefits	2	2
Remuneration to Non - Executive Directors	**6**	**6**
Director Commission and Sitting Fees		
Mr. Kumar Mangalam Birla	-	-
Smt. Rajashree Birla	3	3
Mr. A.K. Agarwala	-	-
Mr. K.N. Bhandari	1	1
Mr. Y.P. Dandiwala	1	1
Ms. Alka Bharucha	-	-
Dr. Vikas Balia	1	1
Mr. Sudhir Mital	-	-
Mr. Anant Maheshwari (Resigned w.e.f. October 18, 2023)	-	-

(a) Excludes amortization of fair value of employee share-based payments under Ind AS 102.

(b) As the liabilities for defined benefit plans and leave entitlements are provided on actuarial basis for the Company as a whole, the amounts pertaining to Key Management Personnel are not included.

31. Contingent Liabilities and Commitments

Contingent Liabilities and Assets

A contingent liability is a possible obligation that arises from a past event, with the resolution of the contingency dependent on uncertain future events, or a present obligation where no outflow is probable. Material contingent liabilities are disclosed in the financial statements unless the possibility of an outflow of economic resources is remote. Contingent assets are not recognized in the financial statements unless it is virtually certain that the future event will confirm the asset's existence and the asset will be realised.

A. Contingent Liabilities

The Company is party to, and may in the future be involved in, or subject to, disputes, claims and proceedings arising in the ordinary course of business, including some we assert against others, such as environmental, health and safety, product liability, employee, tax, personal injury and other matters. The Company has established a liability with respect to contingencies for which a loss is probable and estimable. While the ultimate resolution of liability and costs related to these matters cannot be determined with certainty, the Management does not believe any of these pending actions, individually or in the aggregate, will materially impact our operations or materially affect our financial condition or liquidity.

The Company's estimates involve significant judgment, and therefore, the estimate will change from time to time and actual losses may differ from the current estimate.

Management reviews the status of, and estimated liability related to, pending claims and civil actions on a quarterly basis. The evaluation model includes all asserted and unasserted claims that can be reasonably identified including claims relating to our responsibility for compliance with environmental, health and safety laws and regulations. The estimated costs in respect of such reported liabilities are not offset by amounts related to insurance or indemnification arrangements unless otherwise noted.

Critical Accounting Judgment and Key Sources of Estimation Uncertainty

There are various legal, direct and indirect tax matters and other obligations including environmental, mining, local and state levies, income tax holiday, availing input tax credits etc., which may impact the Company. Evaluation of uncertain liabilities and contingent liabilities and assets arising out of above matters require management judgment and assumptions, regarding the probability outflow or realization of economic resources and the timing and amount, or range of amounts, that may ultimately be determined. Such estimates may vary from the ultimate outcome as a result of differing interpretations of laws and facts, or application of relevant judicial precedents.

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
(a)	**Claims against Company not acknowledged as Debt:**		
	Following demands are disputed by the Company and are not provided for:		
(i)	The tax authorities issued an arbitrary demand notice to the Company for payment of interest on Entry Tax. The Company has challenged the said notice by filing a Writ Tax -218/2023 in the Allahabad High Court. The High Court by its Order gave protection against any coercive action till next date of listing. The challenge is to the power of levy of interest as well as legitimacy of such levy in the face of the facts as well as applicable law.	278	278
(ii)	Customs duty implication on goods importing during transition into GST regime. During the current year, the matter is heard in favour of the Company at CESTAT.	-	16

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
(iii)	Demand for Stamp Duty by Collector (Stamp), Kanpur, Uttar Pradesh (U.P.) on merger of Copper Business of IndoGulf Corporation with the Company. The matter is pending before the Hon'ble High Court of Allahabad. The Company believes that there is no substantive/computation provision for levy/calculation of stamp duty within the provisions of Uttar Pradesh Stamp Act on scheme of arrangement under the Companies Act, 1956, approved by the Court. Moreover, the properties in question are located in the State of Gujarat and, thus, the Collector (Stamp), Kanpur, has no territorial jurisdiction to make such a demand. Further, the Company has already paid the stamp duty for the same in 2003-04 which has been accepted as per the provisions of the Bombay Stamp Act, 1958.	20	20
(iv)	Demand towards drawal of energy during peak hours by Uttar Pradesh Power Corporation Limited (UPPCL)/ Purvanchal Vidyut Vitran Nigam Limited (PVVNL). The dispute relates to the agreement entered with UPPCL for the period 2009-14. Demand was raised by UPPCL for drawl of banked energy during peak hours. The Hon'ble Supreme Court had stayed the demand. Appellate Tribunal for Electricity (APTEL) has remanded back the matter to Uttar Pradesh Electrcity Regulatory Commission to decide afresh.	81	81
(v)	Retrospective revision of Water Rates by UP Jal Vidyut Nigam Limited. Writ petition pending with Lucknow Bench of Allahabad High Court. The demand for arrears stayed.	4	4
(vi)	Demand for Entry Tax relating to valuation dispute pertaining to period 2002-2014. Appeals have been filed with High Court, Odisha.	9	28
(vii)	Interest demand on Entry tax for the year 2009-2017. Hon'ble High Court of Odisha had earlier granted stay on the demand, which was later disposed with direction to pay. The Hon'ble Supreme Court has granted relief on any coercive action till the matter is heard.	27	27
(viii)	Demand from State and Central Sales Tax authorities for various years at different levels of appeal.	19	19
(ix)	Disallowances of Cenvat Credit on inputs & Capital goods & short payment of excise on additional consideration received from recipient of deemed exporter. Matters are pending with CESTAT.	3	10
(x)	Disallowances of Service Tax credit on Input services at various locations. These matters heard in favour by CESTAT authorities.	-	107
(xi)	Demand for recovery of cenvat credit availed on service tax paid on Goods Transport Agency (outward charges) . The matter is pending with Commissioner (Appeals), Vadodara & Commissioner, Bharuch.	8	9
(xii)	Green Cess Provision Under Electricity Act Year-2012-13 to Year 2017-18. The matter is pending at Hon'ble Supreme Court.	16	15
(xiii)	Penalty For Unauthorised Disposal Of Anode Butts. The matter was disposed off by order of National Green Tribunal dated 03/07/2023.	-	14
(xiv)	Demand of reverse charge liability on statutory fees payable to the Government authorities. Matters are pending with various authorities.	18	18

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
(xv)	Demand on tax credits on transition to GST Regime.	2	2
(xvi)	Other Contingent Liabilities in respect of Excise, Customs, Sales Tax etc. each being for less than ₹ 1 Crore. The demands are in dispute at various legal forums.	6	5
		491	**653**

It is not practicable for the Company to estimate the timings of cash outflows, if any, in respect of the above matters, pending resolution of the respective proceedings.

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
(b)	**Other money for which Company is contingently liable**		
(i)	Customs Duty on Raw Materials imported under Advance License, against which export obligation is to be fulfilled.	-	14

B. Commitments

(₹ Crore)

		As at 31/03/2024	As at 31/03/2023
(a)	Estimated amount of contracts remaining to be executed on capital account and not provided for (net of advances)	4,348	2,450
(b)	Other Commitment for purchase of goods and Services (Net of Advance)	2,574	2,490

(c) During the year, the Company has entered into an agreement to invest in Ayana Renewable Power Four Private Limited (ARPFPL), a Special Purpose Vehicle (SPV). ARPFPL will set up a solar plant and a wind power plant having an installed capacity of 188 MW and 146 MW, respectively which will cater to 100 MW power requirement of one of the smelters of the Company. The Company will subscribe for 26% equity shares in the SPV. During the year, the Company has subscribed to its equity shares amounting to ₹ 8 Crore and is committed to finance a total of ₹ 169 Crore towards capital investment in the form of debt and equity, as per the arrangement and expected project expense.

(d) The Company has subscribed 9,46,004 shares as its right issue entitlement from Grasim Industries Limited (Grasim) at ₹ 1812 per share (Face value of ₹ 2 per share and Premium of ₹ 1810). Company has already paid Rs. 43 crore as an application and first call amount on 09/01/2024. Call money amounting to ₹ 129 Crore is to be paid in three instalment as and when the same is demanded by board/ right issue committee of Grasim on or prior to March 2026.

Notes

forming part of the Standalone Financial Statements

32. Capital Management

The Company's objective to manage its capital is to ensure continuity of business while at the same time provide reasonable returns to its various stakeholders, but keep associated costs under control. In order to achieve this, requirement of capital is reviewed periodically with reference to operating and business plans that take into account capital expenditure and strategic investments. Apart from internal accrual, sourcing of capital is done through judicious combination of equity and borrowing, both short term and long term. Total debt (total borrowings + lease liabilities) to equity ratio is used to monitor capital. No changes were made to the objectives, policies or processes for managing capital during the year ended March 31, 2024 and March 31, 2023.

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Borrowings	7,639	12,309
Lease liabilities	736	763
Total Debt	8,375	13,071
Owner's Equity	63,707	58,489
Debt Equity Ratio (In Times)	0.13	0.22

As at March 31, 2024 and March 31, 2023, the Company is in compliance with all of its debt covenants for borrowings. The Company is required to maintain the Debt Service Coverage Ratio of 1.25 times. For the the year ended 31/03/2023 the Debt Service Coverage Ratio of the Company is 1.08 times. The Company has repaid its NCDs amounting to ₹ 6,000 Crore in FY 23. Without considering this repayment, the Company's Debt Service Coverage Ratio will be 5.43 times. This does not have any impact on the Financial Statements of the Company.

33. Fair Value Measurement of Financial Instruments

Critical accounting judgement

The Company applies valuation techniques to determine the fair value of financial instruments (where active market quotes are not available) and non financial assets. This involves developing estimates and assumptions consistent with the market participants to price the instrument. The Company's assumptions are based on observable data as far as possible, otherwise on the best information available. Estimated fair values may vary from the actual prices that would be achieved in an arm's length transaction at the reporting date.

(a) Fair Value Measurement

(i) The following table shows the carrying amounts of Financial Assets and Financial Liabilities by category:

(₹ Crore)

	Note No.	As at 31/03/2024			As at 31/03/2023		
		Amortised Cost	FVTOCI	FVTPL	Amortised Cost	FVTOCI	FVTPL
Financial Assets							
Investments in Associate							
Unquoted Instruments	5B	-	143	-	-	185	-
Investments in Equity Instruments							
Quoted Equity Instruments*	5C	-	10,500	-	-	7,686	-
Unquoted Equity Instruments*	5C	-	26	-	-	25	-
Investments in Debt Instruments							
Mutual Funds	5C, 5D	-	-	1,257	-	-	5,530
Bonds and Debentures	5C, 5D	-	-	350	-	-	130
Government Securities	5C, 5D	-	309	-	-	303	-
Commercial Paper	5D	-	-	199	-	-	97
Certtifcate of Deposits	5D	-	-	1,137	-	-	-
Loans	5E	137	-	-	179	-	-
Trade receivables	5H	2,387	-	91	2,219	-	391
Cash and Cash Equivalents							
Cash and Bank	5I	864	-	-	472	-	-
Bank Balances other than cash & cash equivalents	5J	716	-	-	1,317	-	-
Derivatives	5F	-	221	114	-	482	154
Other financial assets	5G	2,028	-	-	1,962	-	-
		6,132	**11,199**	**3,148**	**6,149**	**8,681**	**6,302**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

	Note No	As at 31/03/2024			As at 31/03/2023		
		Amortised Cost	FVTOCI	FVTPL	Amortised Cost	FVTOCI	FVTPL
Financial Liabilities							
Borrowings							
Borrowings, Non-Current	12A	7,123	-	-	11,559	-	-
Non convertible debentures (NCDs)	12A	-	-	-	699	-	-
Borrowings, Current	12B	517	-	-	50	-	-
Lease Liabilities	3D	736	-	-	763	-	-
Supplier's Credit	12D	1,308	3,167	-	1,035	4,600	-
Trade Payables	12E	4,757	-	4,452	5,986	-	3,757
Derivatives	5F	-	33	120	-	40	154
Other financial Liabilities	12C	1,187	-	-	808	-	-
		15,628	**3,200**	**4,572**	**20,900**	**4,640**	**3,911**

* The Company had acquired certain equity instruments for purpose of holding for a longer duration and not for the purpose of selling in near term for short term profit. Such instruments have been categorized as FVTOCI.

(ii) The following table shows the fair values of Financial Assets and Financial Liabilities measured at amortised cost:

(₹ Crore)

	Note No	As at 31/03/2024		As at 31/03/2023	
		Carrying value	Fair Value	Carrying value	Fair Value
Financial Assets					
Loans, Non Current	5E	107	105	174	172
Other Financial Asset, Non Current	5G	972	945	1,438	1,428
		1,079	**1,050**	**1,612**	**1,600**

(₹ Crore)

	Note No	As at 31/03/2024		As at 31/03/2023	
		Carrying value	Fair Value	Carrying value	Fair Value
Financial Liabilities					
Borrowings					
Non convertible debentures (NCDs)	12A	-	-	699	696
Long term Borrowings #	12A	7,123	7,175	11,609	11,708
Other Financial Liabilities, Non - Current	12C	125	157	61	61
		7,248	**7,332**	**12,369**	**12,465**

Carrying amount includes current portion of long term borrowing shown under short term borrowing (Refer Note 12B).

Fair Value of borrowings does not include interest accrued but not due.

Fair values for current financial assets and financial liabilities have not been disclosed because their carrying amount are a reasonable approximation of their fair values.

(iii) Classification of finance income and finance cost by instrument category:

(₹ Crore)

	Note No	Year ended 31/03/2024			Year ended 31/03/2023		
		Amortised Cost	FVTOCI	FVTPL	Amortised Cost	FVTOCI	FVTPL
Income							
Interest Income	17	316	20	18	256	20	14
Dividend Income	17	-	34	-	-	33	-
		316	**54**	**18**	**256**	**53**	**14**
Expense							
Interest Expense (a)	22	1,324	-	-	1,271	-	-
		1,324	**-**	**-**	**1,271**	**-**	**-**

(₹ Crore)

Details of amount not included in the table above:	As at	
	31/03/2024	31/03/2023
(a) Other interest expense and borrowing cost (refer note 22)	44	77

For amortised cost and FVTOCI instruments, interest expense is recognised at effective interest rate.

(b) Fair Value Hierarchy

The following table shows the details of financial assets and financial liabilities including their levels in the fair value hierarchy:

(i) **Financial assets and financial liabilities measured at fair value - recurring fair value measurements:**

(₹ Crore)

	Note No	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Assets							
Investments in Associates							
Unquoted Instruments	5B	-	-	143	-	-	185
		-	**-**	**143**	**-**	**-**	**185**
Investments in Equity Instruments							
Quoted Equity Instruments	5C	10,500	-	-	7,686	-	-
Unquoted Equity Instruments	5C	-	-	26	-	-	25
		10,500	**-**	**26**	**7,686**	**-**	**25**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

	Note No	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Investments in Debt Instruments							
Mutual Funds	5C, 5D	1,257	-	-	5,530	-	-
Bonds and Debentures	5C, 5D	-	225	125	-	100	30
Government Securities	5C, 5D	49	93	167	202	53	48
Certificate of Deposits	5C, 5D	-	1,137	-	-	-	-
Commercial Paper	5D	-	-	199	-	-	97
		1,306	**1,455**	**491**	**5,732**	**153**	**175**
Trade Receivables	5H	-	91	-	-	391	-
Derivatives	5F	-	335	-	-	154	-
		11,806	**1,881**	**660**	**13,418**	**698**	**385**

(₹ Crore)

	Note No	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Liabilities							
Trade Payables	12E	-	4,452	-	-	3,757	-
Derivatives	5F	-	153	-	-	194	-
Supplier's credit	12D	-	3,167	-	-	4,600	-
		-	**7,772**	-	-	**8,551**	

(ii) **Fair value disclosure of Financial Assets and Financial Liabilities measured at amortised cost:**

(₹ Crore)

	Note No	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Liabilities							
Borrowings							
Non convertible debentures (NCDs)	12A	-	-	-	-	696	-
Long term Borrowings	12A	-	7,175	-	-	11,708	-
Other Financial Liabilities, Non - Current	12C	-	157	-	-	61	-
		-	**7,332**	-	-	**12,465**	-

(₹ Crore)

	Note No	As at 31/03/2024			As at 31/03/2023		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Assets							
Loans, Non-Current	5E	-	-	105	-	-	172
Other Financial Asset, Non- Current	5G	-	-	945	-	-	1,428
		-	-	**1,050**	-	-	**1,600**

Level 1 Hierarchy includes financial instruments valued using quoted market prices. Listed equity instruments and traded debt instruments which are traded in the stock exchanges are valued using the closing price at the reporting date. Mutual funds are valued using the closing NAV.

Level 2 Hierarchy includes financial instruments that are not traded in active market. This includes over the counter (OTC) derivatives, close ended mutual funds and debt instruments including quoted valued using observable market data such as yield etc. of similar instruments traded in active market. All derivatives are reported at discounted values hence are included in level 2. Borrowings have been fair valued using credit adjusted interest rate prevailing on the reporting date. Trade Receivables and Payables that are realigned based on forward LME/LBMA price movements have been included in Level 2 hierarchy.

Level 3 If one or more significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity instruments and certain debt instruments including quoted which are not actively traded valued using assumptions from market participants.

(iii) **Disclosure of changes in level 3 items for the period ended 31/03/2024 and 31/03/2023 respectively**

(₹ Crore)

	Unquoted Associates	Unquoted Equity Instruments	Unquoted Debt Instruments	Total
As at 31/03/2022	**154**	**15**	**152**	**321**
Acquisitions	17	-	96	113
Sale	-	-	(17)	(17)
Gain/(losses) recognised in Profit or loss	-	-	(3)	(3)
Gain/(losses) recognised in OCI	14	10	-	24
Transfer from Level 1 and 2	-	-	48	48
Transfer to Level 1 and 2	-	-	(101)	(101)
As at 31/03/2023	**185**	**25**	**175**	**385**
Acquisitions	26	-	286	312
Sale	-	-	(100)	(100)
Gain/(losses) recognised in Profit or loss	-	-	8	8
Gain/(losses) recognised in OCI	(68)	1	4	(63)
Transfer from Level 1 and 2	-	-	167	167
Transfer to Level 1 and 2	-	-	(49)	(49)
As at 31/03/2024	**143**	**26**	**491**	**660**
Unrealised Gain/(loss) recognised in the statement of profit and loss relating to assets and liabilities held at the end of reporting period:				
As at 31/03/2024	-	-	11	11
As at 31/03/2023	-	-	4	4

Notes

forming part of the Standalone Financial Statements

Transfers from level 1 and 2 to level 3 and out of level 3 for unquoted debt instruments is based on unavailability/availability of market observable inputs as on the reporting date. The Company's policy is to recognise transfers into and transfers out of fair value hierarchy levels as at the end of the reporting period.

(iv) Sensitivity analysis of Level-3 Instruments:

(₹ Crore)

Increase/(Decrease) in Fair Value	Unquoted Associates		Unquoted Equity Instruments		Unquoted Debt Instruments	
	Impact on Statement of Profit and Loss Post Tax	Impact on OCI Post Tax	Impact on Statement of Profit and Loss Post Tax	Impact on OCI Post Tax	Impact on Statement of Profit and Loss Post Tax	Impact on OCI Post Tax
Increase in Yield by 0.5%						
As at 31/03/2024	-	-	-	-	(2)	(1)
As at 31/03/2023	-	-	-	-	(1)	(1)
Increase in Earnings Multiple by 10%						
As at 31/03/2024	-	11	-	2	-	-
As at 31/03/2023	-	5	-	2	-	-
Increase in Weighted average cost of capital 0.5%						
As at 31/03/2024	-	(0)	-	-	-	-
As at 31/03/2023	-	(3)	-	-	-	-

Sensitivity with decrease in Yield, Earning Multiple and Weighted average cost of capital by 0.5%, 10% and 0.5% respectively will have equal and opposite impact in financial statement.

(v) Valuation Process:

Some of the Company's assets and liabilities are measured at fair value for financial reporting purposes. The Management of the Company has set up a team in the finance department which performs the valuation of financial assets and liabilities.

In estimating the fair value of an asset or a liability, the Company uses market-observable data to the extent it is available. Where Level 1 inputs are not available, the Company engages third party qualified valuers to perform the valuation. The team works closely with the qualified external valuers to establish the appropriate valuation techniques and inputs to the model. The team reports findings to the Management of the Company to explain the cause of fluctuations in the fair value of the assets and liabilities.

(vi) Valuation techniques used for valuation of instruments categorised as level 3:

For valuation of investments in equity shares and associates which are unquoted, peer comparison has been performed wherever available. Valuation has been primarily done by considering the net worth of the Company and earning multiple to arrive at the fair value. In cases where income approach was feasible valuation has been arrived using the earnings capitalisation method or discounted cash flow method. For inputs that are not observable for these instruments, certain assumptions are made based on available information. The most significant of these assumptions are the discount rate and credit spreads used in the valuation process.

For valuation of investments in debt securities categorised as level 3, market polls which represent indicative yields are used as assumptions by market participants when pricing the asset.

There were no significant inter-relationships between unobservable inputs that materially affect fair values.

34. Financial Risk Management

The Company's activities exposes it to various risks such as market risk, liquidity risk and credit risk. This section explains the risks, which the Company is exposed to and how it manages those risks.

(a) Market Risk

(i) **Commodity Price Risk**

Hindalco's India Operations consist of two businesses – Copper Business and Aluminium Business. The Copper Business works under a "Custom Smelting" model wherein the focus is to improve the processing margin. The timing mis-match risk between the input and output price, which is linked to the same international pricing benchmark, is eliminated through use of derivatives. This off-set hedge model (through use of derivatives) is used to manage the timing mis-match risk for both Commodity (Copper and Precious Metals) and Currency Risk (primarily, USD/INR). The Copper Business also has a portion of View Based exposure for both Commodity and Currency, beyond the above timing mis-match risk. Lower Copper Prices, Stronger USD/INR exchange rate and Higher "Other Input" Prices (eg Coal, furnace oil, natural gas etc) are the major price risks that adversely impact the business. Here, the Company may use derivative instruments or non-derivative instrument, wherever available, to manage these pricing risks. A variety of factors, including the risk appetite of the business and price view, are considered while taking Hedging Decisions. Such View based hedges are usually done for the next 1-12 quarters.

The Aluminium Business is a vertically integrated business model wherein the input and output pricing risks are independent of each other, i.e. – are on different pricing benchmarks, if any. Here, the Company may use derivative instruments, wherever available, to manage its pricing risks for both input and output products. Lower Aluminium Prices, weaker USD/INR exchange rate and Higher Input Prices (e.g. Alumina, furnace oil, coal, coal tar pitch) are the major price risks that adversely impact the Business. Hedging decisions are based on a variety of factors, including risk appetite of the business and price View. Such Hedge decisions are usually done for the next 1-12 quarters.

Embedded Derivatives

Copper concentrate is purchased on future pricing model based on month's average LME (in case of copper) / LBMA (in case of gold and silver). Since, the value of the concentrate changes with response to change in commodity pricing indices, embedded derivatives (ED) is identified and segregated in the contract. The ED so segregated, is treated like commodity derivative and qualify for hedge accounting. These derivatives are put into a Fair Value hedge relationship with respect to inventory.

1. **The table below summarises gain/(loss) impact of increase/decrease in the commodity price on the Company's equity and profit for the year:**

(₹ Crore)

Commodity Risk	Price Index	Increase in Price	Year ended 31/03/2024		Year ended 31/03/2023	
			Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax	Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax
Forwards						
Aluminium	LME	10%	(0)	(3)	(3)	(129)
Copper	LME	10%	(665)	-	(691)	-
Gold	LBMA/ MCX	10%	(184)	-	(159)	-
Silver	LBMA	10%	(11)	-	-	-
Options						
Aluminium	LME	10%	(99)	-	-	-
Aluminium	LME	-10%	(7)	108	-	-
Swaps						
Furnace Oil	AG Platts	10%	-	-	-	10

Notes

forming part of the Standalone Financial Statements

Decrease in prices in all the above mentioned commodities, other than Aluminium Options, by 10% will have an equal and opposite impact in the financial statements. Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the outstanding derivative position as on the reporting date by assuming all other factors constant.

(ii) **Foreign Currency Risk**

Exchange rate movements, particularly the United States Dollar (USD) and Euro (EUR) against Indian Rupee (INR), have an impact on our operating results. In addition to the foreign exchange inflow from exports, the commodity prices in the domestic market are derived based on the landed cost of imports in India where LME prices and USD/INR exchange rate are the main factors. In case of conversion business, the objective is to match the exchange rate of outflows and related inflows through derivative financial instruments. With respect to Aluminium business where costs are predominantly in INR, the strengthening of INR against USD adversely affects the profitability of the business and benefits when INR depreciates against USD. The Company enters into various foreign exchange contracts to protect profitability. The Company also enters into various foreign exchange contracts to mitigate the risk arising out of foreign currency exchange rate movement in foreign currency contracts executed with foreign suppliers to procure capital items for its project activities.

During the year ended, the Company's foreign currency exposure arising from exports and import transactions resulted in the FOB value of exports amounting to ₹ 18,018 Crore (31/03/2023 ₹ 17,319 Crore) and the CIF value of imports amounting to ₹ 45,715 Crore (31/03/2023 ₹ 37,993 Crore).

1. The Company's net exposure to foreign currency risk at the end of the financial year 2023-2024 are expressed in ₹ is given below :

Unhedged Foreign Currency (Payable) / Receivable

(₹ Crore)

Particulars	USD	EUR	GBP	JPY	CHF	CAD	CNY
Financial assets							
Trade receivables	396	22	1	17	-	-	-
Other financial assets	95	-	-	-	-	-	-
Derivative assets							
Hedged through sell forex forwards	(491)	-	-	-	-	-	-
Unhedged foreign currency receivable (A)	-	22	1	17			
Financial liabilities							
Trade payables	(6,156)	(164)	-	(2)	(1)	-	-
Other financial liabilities	(131)	(104)	(2)	-	-	(2)	-
Borrowings*	(513)	-	-	-	-	-	-
Supplier's credit*	(4,528)	-	-	-	-	-	-
Derivative liabilities							
Hedged through buy forex forwards	1,331	-	-	-	-	-	-
Unhedged foreign currency payable (B)	(9,997)	(269)	(2)	(2)	(1)	(2)	-
Net unhedged payable/receivable (A+B)	**(9,997)**	**(247)**	**(1)**	**15**	**(1)**	**(2)**	**-**

* Includes interest accrued but not due

As on March 31, 2024 the Company has USD, EUR, GBP and JPY net foreign currency payables of ₹ 10,214 Crore (March 31, 2023 ₹ 11,563 Crore) which will be offseted by an equal amount of foreign currency receivables in the next financial year. These foreign currency assets and liabilities that are naturally hedged against future transactions are not excluded for the purpose of above disclosure.

2. The Company's net exposure to foreign currency risk at the end of the financial year 2022-2023 are expressed in ₹ is given below :

Unhedged Foreign Currency (Payable) / Receivable

(₹ Crore)

Particulars	USD	EUR	GBP	CHF	NOK
Financial Assets					
Trade receivables	218	57	1	-	-
Other financial assets	38	-	-	-	-
Derivative assets					
Hedged through sell forex forwards	(255)	-	-	-	-
Unhedged foreign currency receivable (A)	1	57	1	-	-
Financial liabilities					
Trade payables	(6,793)	(92)	-	(1)	-
Other financial liabilities	(42)	(23)	(1)	(1)	(1)
Supplier's credit*	(5,706)	-	-	-	-
Derivative liabilities	-	-	-	-	
Hedged through buy forex forwards	988	-	-	-	-
Unhedged foreign currency payable (B)	(11,553)	(115)	(1)	(2)	(1)
Net unhedged payable/receivable (A+B)	**(11,552)**	**(58)**	**-**	**(2)**	**(1)**

* Includes interest accrued but not due

As on March 31, 2023 the Company has USD, EUR and GBP foreign currency payables of ₹ 11,563 Crore (March 31, 2022 ₹ 10,110 Crore) which will be offseted by an equal amount of foreign currency receivables in the next financial year. These foreign currency assets and liabilities that are naturally hedged against future transactions are not excluded for the purpose of above disclosure.

3. The table below summarises gain/(loss) impact of increase/decrease in the exchange rates on the Company's equity and profit for the year:

(₹ Crore)

Currency Risk	Increase in Rate/Price	Year ended 31/03/2024		Year ended 31/03/2023	
		Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax	Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax
USD/INR	10%	(711)	(1,161)	(880)	(1,271)
EUR/INR	10%	(16)	-	(5)	-
EUR/USD	10%	(1)	-	-	-
GBP/INR	10%	-	-	-	-
NOK/INR	10%	-	-	-	-
JPY/INR	10%	1	-	-	-
CHF/INR	10%	-	-	-	-

Decrease in prices by 10% will have equal and opposite impact in financial statements.

Sensitivity analysis has been computed by stress testing the market price of the underlying currency index on the outstanding derivative position and unhedged exposure as on the reporting date by assuming all other factors constant.

Notes

forming part of the Standalone Financial Statements

(iii) **Interest Rate Risk**

The Company is exposed to interest rate risk on financial liabilities such as borrowings, both short-term and long-term. It maintains a balance of fixed and floating interest rate borrowings and the proportion is determined by current market interest rates, projected debt servicing capability and view on future interest rates. Such interest rate risk is actively evaluated and interest rate swap is taken whenever considered necessary.

The Company is also exposed to interest rate risk on its financial assets that include fixed deposits, bonds, debentures, commercial papers, other mutual funds and liquid investments comprising mainly mutual funds (which are part of cash and cash equivalents). Since, majority of these are generally for short durations, the Company believes it has limited interest rate risk.

1. The table below summarises gain/(loss) impact of increase/decrease in the interest rates on the Company's equity and profit for the year:

(₹ Crore)

Interest Rate Risk	Increase in Rate	Year ended 31/03/2024		Year ended 31/03/2023	
		Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax	Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax
Interest rate on floating rate borrowings	100 bps	(62)	-	(77)	-

Decrease in rates by 100 bps will have equal and opposite impact in financial statements.Sensitivity analysis has been computed by stress testing the interest rates applicable (i.e. USD 6M SOFR, SBI 3M MCLR, Repo Rate and 3M T-bill etc.) on the amount of borrowings during the year by assuming all other factors constant.

Derivatives

The Company does not have any interest rate hedges oustanding as on the reporting date, accordingly Interbank offered rates (IBOR) related impact on hedge accounting including discounting of other derivatives is not expected to be material.

(iv) **Equity Securities Price Risk**

The Company's exposure to equity securities price risk arises from movement in market price of related securities classified either as FVTOCI or FVTPL. The Company manages the price risk through diversified portfolio.

1. The table below summarises gain/(loss) impact of increase/decrease in the equity share price on the Company's equity and profit for the year:

(₹ Crore)

Other Price Risk	Price Index	Increase Rate/ Price	Year ended 31/03/2024		Year ended 31/03/2023	
			Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax	Gain/ (Loss) in Statement of Profit and Loss Post Tax	Gain/ (Loss) in Other Components of Equity Post Tax
Investment in Equity Securities	NSE	10%	-	928	-	679

Decrease in prices by 10% will have equal and opposite impact in financial statements.

Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the investment portfolio as on the reporting date by assuming all other factors constant.

(b) Liquidity Risk

The Company determines its liquidity requirements in the short, medium and long term. This is done by drawing up cash forecast for short and medium term requirements and strategic financing plans for long term needs.

The Company manages its liquidity risk in a manner so as to meet its normal financial obligations without any significant delay or stress. Such risk is managed through ensuring operational cash flow while at the same time maintaining adequate cash and cash equivalents position. The management has arranged for diversified funding sources and adopted a policy of managing assets with liquidity in mind and monitoring future cash flows and liquidity on a regular basis. Surplus funds not immediately required are invested in certain financial assets (including mutual funds) which provide flexibility to liquidate at short notice and are included in current investments and cash equivalents. Besides, it generally has certain undrawn credit facilities which can be accessed as and when required, which are reviewed periodically.

The Company has developed appropriate internal control systems and contingency plans for managing liquidity risk. This incorporates an assessment of expected cash flows and availability of alternative sources for additional funding, if required.

(i) **Financing Arrangement**

The Company had access to the following undrawn borrowing facilities at the end of the reporting period:

(₹ Crore)

	As at	
	31/03/2024	31/03/2023
Bank Overdraft and other facilities	1,642	1,642

Undrawn limit has been calculated based on the available drawing power and sanctioned amount at each reporting date.

(ii) **Maturity Analysis**

The Company's financial liabilities into relevant maturity groupings based on their contractual maturities for all non-derivative financial liabilities and net settled derivative financial instruments. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

(₹ Crore)

1. Contractual maturities of financial liabilities as at 31/03/2024	Note No	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 years	Total	Carrying Value
Non Derivatives							
Borrowings #							
Principal Payments	12A, 12B, 5G	-	-	4,998	2,164	7,162	7,123
Interest Payments		594	594	1,193	133	2,514	-
Lease liabilities *	3D	168	150	290	698	1,306	736
Supplier's Credit	12D	4,529	-	-	-	4,529	4,475
Trade payables	12E	9,209	-	-	-	9,209	9,209
Other financial liabilities	12C	1,062	114	7	4	1,187	1,187
		15,562	**858**	**6,488**	**2,999**	**25,907**	**22,730**
Derivatives (net settled)	5F						
Commodity forwards/swaps/ options		132	-	-	-	132	131
Currency forwards/options		21	-	-	-	21	22
		153	**-**	**-**	**-**	**153**	**153**

Notes

forming part of the Standalone Financial Statements

(₹ Crore)

2. Contractual maturities of financial liabilities as at 31/03/2024	Note No	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 years	Total	Carrying Value
Non Derivatives							
Borrowings #							
Principal Payments	12A, 12B, 5G	750	986	4,571	6,050	12,357	12,308
Interest Payments		954	912	2,077	819	4,762	-
Lease liabilities *	3D	152	137	318	766	1,373	763
Supplier's Credit	12D	5,704	-	-	-	5,704	5,635
Trade payables	12E	9,743	-	-	-	9,743	9,743
Other financial liabilities	12C	747	44	16	1	808	808
		18,050	**2,079**	**6,982**	**7,636**	**34,747**	**29,257**
Derivatives (net settled)	5F						
Commodity forwards/swaps/ options		162	-	-	-	162	165
Currency forwards/options		39	7	1	-	47	29
		201	**7**	**1**	**-**	**209**	**194**

Includes Principal and interest payments, short term borrowings, current portion of debt and excludes unamortised fees.

* Total cash outflow for leases for the year ended 31/03/2024 is ₹ 349 Crore (31/03/2023: ₹ 399 Crore), includes ROU Lease payment, Short term lease and Low value lease, refer note 12B(c) and 24(c).

(c) Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligation.

Credit risk arises from cash and cash equivalents, contractual cash flows of debt investments, favourable derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers including outstanding receivables.

Credit risk is managed on an entity level basis. The Company has adopted a policy of dealing only with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating risk of financial loss from defaults. The Company invests only in those instruments issued by high rated banks/ institutions and government agencies. The Company assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. The Company's investments in debt instruments and certain loans are considered to have low credit risk. The credit ratings of the investments are monitored for credit deterioration.

For some trade receivables, the Company obtains security in the form of guarantees, deed of undertaking or letters of credit which can be called upon if the counterparty is in default under the terms of the agreement.

The Company periodically monitors the recoverability and credit risks of its other financials assets including security deposits and other receivables. The Company evaluates 12 months expected credit losses for all the financial assets for which credit risk has not increased. In case credit risk has increased significantly, the Company considers life time expected credit losses for the purpose of impairment provisioning.

The Company has used a practical expedient by computing the expected credit loss allowance over a period of 36 months before reporting date for trade receivables based on a provision matrix. The provision matrix takes into account historical credit loss experience and adjusted for forward-looking information on macro economic factors affecting the ability of the customers to settle the receivables. The expected credit loss allowance is based on the ageing of the days for which the receivables are due and the expected loss rates as given in the provision matrix. The provision matrix at the end of the reporting period is as follows:

(i) **Summary of trade receivables and provision with ageing as at 31/03/2024:**

(₹ Crore)

Particulars	Past due						
	Not due	1 to 30 days	31 to 60 days	61 to 120 days	121 to 180 days	Over 180 days	Total
Gross carrying amount - Domestic	1,595	178	45	47	44	162	2,071
Gross carrying amount - Export	379	84	2	-	-	1	466
Average expected loss rate	0.15%	0.00%	0.00%	0.00%	0.00%	13.50%	**0.99%**
Expected credit loss provision	3	-	-	-	-	22	25
Loss allowance - Credit impaired - Export	-	-	-	-	-	1	1
Loss allowance - Credit impaired - Domestic	-	-	-	-	-	33	33
Total Provision	3	-	-	-	-	56	59
Carrying amount of trade receivables (net of impairment)	**1,971**	**262**	**47**	**47**	**44**	**107**	**2,478**

(ii) **Summary of trade receivables and provision with ageing as at 31/03/2023:**

(₹ Crore)

Particulars	Past due						
	Not due	1 to 30 days	31 to 60 days	61 to 120 days	121 to 180 days	Over 180 days	Total
Gross carrying amount - Domestic	1,910	195	35	39	24	159	2,362
Gross carrying amount - Export	258	34	3	-	-	1	296
Average expected loss rate	0.05%	0.00%	0.00%	0.00%	0.00%	8.1%	**0.53%**
Expected credit loss provision	1.00	-	-	-	-	13	14
Loss allowance - Credit impaired - Export	-	-	-	-	-	1	1
Loss allowance - Credit impaired - Domestic	-	-	-	-	-	33	33
Total Provision	1	-	-	-	-	47	48
Carrying amount of trade receivables (net of impairment)	**2,167**	**229**	**38**	**39**	**24**	**113**	**2,610**

Notes

forming part of the Standalone Financial Statements

(iii) **Reconciliation of Provision**

	(₹ Crore)
Loss allowance as at 31/03/2022	37
Changes in loss allowance	11
Loss allowance as at 31/03/2023	48
Changes in loss allowances	11
Loss allowance as at 31/03/2024	59

Of the trade receivables balance as at 31/03/2024, ₹ Nil (as at 31/03/2023, ₹ 473 Crore) is due from a single customer being the Company's largest customer. There are no other customers who represent more than 10% of the total balance of trade receivables.

Financial assets at FVTPL and at FVTOCI:

The Company is also exposed to credit risks in relation to financial assets that are measured at FVTPL or at FVTOCI. The maximum exposure at the end of the reporting period is the carrying amount of these assets.

35. Offsetting Financial Liabilities and Financial Assets

Financial assets and liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

Financial instruments subject to offsetting , enforceable master netting arrangement and similar arrangements.

(₹ Crore)

As at 31/03/2024	Effects on Balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount presented in the balance sheet	Amounts subject to master netting arrangements	Financial Instrument collateral	Net Amount
Financial Assets						
Derivatives	526	(191)	335	-	-	335
Financial Liabilities						
Derivatives	344	(191)	153	-	(387)	-

(₹ Crore)

As at 31/03/2023	Effects on Balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount presented in the balance sheet	Amounts subject to master netting arrangements	Financial Instrument collateral	Net Amount
Financial Assets						
Derivatives	754	(118)	636	-	-	636
Financial Liabilities						
Derivatives	312	(118)	194	-	(362)	-

36. Relationship with struck off companies

Disclosure related to relationship of the Company with a company which is Struck off under Section 248 of the Companies Act, 2013 or Section 530 of Companies Act, 1956 as at 31/03/2024 and 31/03/2023 are as follows:

S. No.	Name of struck off Company	Nature of transactions with struck-off Company	Balance outstanding as at 31/03/2024	Balance outstanding as at 31/03/2023	Relationship with the Struck off company, if any, to be disclosed
	Receivables				
1	Daga Nylomet Pvt. Ltd.	Sale of Goods and Services	1	1	Not a related party
2	Gapscib Trading Private Limited	Sale of Goods and Services	2	2	Not a related party
3	Krs And Sons Construction Private Limited	Sale of Goods and Services	-	-	Not a related party
4	Maheshwary Metal and Alloys Private Limited	Sale of Goods and Services	-	-	Not a related party
5	Nilgiris Chemical Stoneware Company Private Limited	Sale of Goods and Services	-	-	Not a related party
	Payables				
1	D. Wren Industries Pvt. Ltd.	Purchase of Goods and Services	-	-	Not a related party
2	Knop Trading Company Private Limited	Purchase of Goods and Services	-	-	Not a related party
3	Multitech System Industrial Automation Private Limited	Purchase of Goods and Services	-	-	Not a related party
4	Nuwave Technology Private Limited	Purchase of Goods and Services	-	-	Not a related party
5	Singhal Bricks Private Limited	Purchase of Goods and Services	-	-	Not a related party
6	Vikadis Consulting Engineering Private Limited	Purchase of Goods and Services	-	-	Not a related party
7	Xtend Apt Solutions Private Limited	Purchase of Goods and Services	-	-	Not a related party
8	Boc India Limited	Deposit Refundable	-	-	Not a related party

Notes

forming part of the Standalone Financial Statements

37. Financials Ratio Analysis:

S. No.	Particulars	As at 31/03/2024	31/03/2023	Change in %
(a)	**Current Ratio (Times)** (Current Assets/Current Liabilities excluding Current Maturities of Long term Borrowings and Lease liabilities)	1.62	1.80	-9.73%
(b)	**Debt-Equity Ratio (Times) (i)** (Borrowings + Lease Liabilities)/ Total Equity	0.13	0.22	-41.18%
(c)	**Debt Service Coverage Ratio (Times) (i)** (Profit before Depreciation, Amortization, Impairment Loss on Non-Current Assets, Finance Cost and Tax)/ (Finance Cost (net of capitalization) + Scheduled Principal Repayment (Excluding Prepayment))	3.99	1.08	269.23%
(d)	**Return on Equity Ratio (%)** (Profit after tax/ Average shareholder equity)	6%	6%	2.72%
(e)	**Inventory turnover ratio (Times)** (Revenue from Operations/Average Inventory)	4.18	3.74	11.90%
(f)	**Trade Receivables turnover ratio (Times)** (Revenue from Operations /Average Trade Receivable)	32.62	29.11	12.06%
(g)	**Trade payables turnover ratio (Times) (ii)** (Purchases of Raw Material and traded purchases/ Average Trade Payable related to Raw Material and traded purchases)	8.51	5.99	41.96%
(h)	**Net capital turnover ratio (Times) (iii)** (Revenue from Operations/ Working Capital excluding Current Maturities of Long term Borrowings and lease liabilities)	7.08	4.95	43.06%
(i)	**Net profit ratio (%)** (Profit after tax/ Revenue from Operations)	4%	4%	2.95%
(j)	**Return on Capital employed (%)** (Earnings before interest and taxes/ Capital Employed (Tangible Net worth + Total Debt + Deferred Tax liability)	8%	8%	-0.08%
(k)	**Return on investment (%)** (Earnings before interest and tax/ Average total assets)	6%	6%	2.48%

Clarification for changes

(i) The Company has repaid the debentures of ₹ 700 Crore (Year ended 31/03/2023 ₹ 6,000 Crore). Ratio improved majorly due to the same.

(ii) The change in ratio is because of increase in Purchase of Raw Material and Trade Purchases by ₹ 10,835 Crore.

(iii) The change in ratio is because of increase in Revenue from Operation by ₹ 6,130 Crore.

38. Other Regulatory Information

(a) As per Section135 of the Companies Act, 2013, a Company, meeting the applicability threshold, needs to spend at least 2% of its average net profit for the immediately preceding three financial years on Corporate social Responsibility (CSR) activities. A CSR committee has been formed by the Company as per the Act. The funds were primarily allocated to a corpus and utilized through the year on these activities which are specified in Schedule VII of the Companies Act, 2013:

(i) Gross amount required to be spent by the company during the year is ₹ 95 Crore (Year ended 31/03/2023 ₹ 69 Crore).

(ii) Amount approved by the Board to be spent during the year is ₹ 95 Crore (Year ended 31/03/2023 is ₹ 45 Crore).

(iii) Amount spent during the year

(₹ Crore)

Particulars	Year Ended 31/03/2024	Year Ended 31/03/2023
a) Construction/ acquisition of any asset^	-	-
b) On purposes other than (a) above	48	36
Total	**48**	**36**

^ Assets are not in the books of the Company

(iv) Details of excess amount spent under Section 135(5) of the Companies Act, 2013

(₹ Crore)

Particulars	Year Ended 31/03/2024	Year Ended 31/03/2023
Opening Balance - excess spent	-	**24**
Amount required to be spent during the year	95	69
Amount spent during the year	48	36
Unspent CSR amount in Current year **	47	10
CSR expenses claimed/ Debited in Statement of profit and loss in Current year	95	70
Closing Balance - excess spent	-	-

(v) Details of ongoing projects under Section 135(6) of the Companies Act, 2013

(₹ Crore)

Particulars	Year Ended 31/03/2024		Year Ended 31/03/2023	
	With Company's Bank A/c	In Separate CSR Unspent A/c	With Company's Bank A/c	In Separate CSR Unspent A/c
Opening Balance	-	**10**	-	-
Amount required to be spent during the year **	-	47	-	10
Amount spent during the year	-	10	-	-
Closing Balance	-	**47**	-	**10**

**Unspent CSR amount of ₹ 47 Crore, pursuant to onging project undertaken by the Company has been deposited to Unspent CSR account maintained in a scheduled bank on 30/04/2024.

(vi) The areas for CSR activities are eradication of hunger and malnutrition, promoting education, art and culture, healthcare, destitute care and rehabilitation, environment sustainability, disaster relief and rural development projects.

Notes

forming part of the Standalone Financial Statements

(vii) The contribution to a trust controlled by the Company (Hindalco Jan Seva Trust) in relation to CSR expenditure is ₹ 1 Crore (year ended 31/03/2023 ₹ 1 Crore).

(viii) There is provision made with respect to a liability incurred by entering into a contractual obligation during the current year ₹ 3 Crore (year ended 31/03/2023 ₹ 1 Crore).

(b) Details of loans given, investment made and guarantee given covered under section 186(4) of the Companies Act, 2013:

(i) Details of investments made have been given as part of Note '5A' Investments in Subsidiary, Note '5B' Investments in Associates and Joint Ventures and Note '5C' and '5D' Other Investments.

(ii) Details of loans and guarantees given are mentioned in Note "5E (b)" Loans.

(c) Other additional disclosures required under Schedule III as per Companies Act 2013 are as follows:

(i) No proceedings have been initiated on or are pending against the Company for holding benami property under the Benami Transactions (Prohibition) Act, 1988 (45 of 1988) and Rules made thereunder.

(ii) Hindalco Industries limited have not been declared wilful defaulter by any bank or financial institution or government or any government authority.

(iii) Hindalco Industries Limited has complied with the number of layers prescribed under the Companies Act, 2013.

(iv) There is no undisclosed income under the Income Tax Act, 1961 for the year ending 31/03/2024 and 31/03/2023 which needs to be recorded in the books of account.

(v) Hindalco Industries Limited has not traded or invested in crypto currency or virtual currency during the current or previous year.

(vi) The borrowings obtained by the company from banks and financial institutions have been applied for the purposes for which such loans were was taken.

(vii) There are no charges or satisfaction which are yet to be registered with the Registrar of Companies beyond the statutory period.

(viii) **Utilisation of borrowed funds and share premium.**

(I) The Company has not advanced or loaned or invested funds to any other person(s) or entity(ies), including foreign entities (Intermediaries) with the understanding that the Intermediary shall:

a. directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the group (Ultimate Beneficiaries) or

b. provide any guarantee, security or the like to or on behalf of the ultimate beneficiaries

(II) The Company has not received any fund from any person(s) or entity(ies), including foreign entities (Funding Party) with the understanding (whether recorded in writing or otherwise) that the Company shall:

a. directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Funding Party (Ultimate Beneficiaries) or

b. provide any guarantee, security or the like on behalf of the ultimate beneficiaries

(ix) The Company has not entered into any scheme of arrangement which has an accounting impact on current or previous financial year.

(x) The Company has borrowings from banks on the basis of security of current assets. The quarterly returns or statements of current assets filed by the Company with banks are in agreement with the books of accounts except in case of quarter ended 31/03/2024 where the Company has filed provisional statement with the bank and the final statement will be submitted to the bank after finalization of audited financial statements.

39. Subsequent events

The Management has evaluated all the activities of the Company till May 24, 2024 and below one subsequent non adjusting event has been noted:

Novelis Inc., a fully owned subsidiary of the Company on May 13, 2024 has filed the registration statement in Form F-1 with the Securities and Exchange Commission (the "SEC") relating to the proposed Initial Public Offering of its common shares. Novelis Inc. intends to list its common shares on the New York Stock Exchange ("NYSE"). The number of shares to be offered and the price range for the proposed offering have not yet been determined. The Company expects to complete the public offering after the SEC completes its review process, subject to market and other conditions. There can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering.

As per our report annexed.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sarah George
Partner
Membership No. 045255

Place : Mumbai
Dated : May 24, 2024

For and on behalf of the Board of Directors

Praveen Kumar Maheshwari
Whole-time Director & Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Geetika Anand
Company Secretary

K N Bhandari
Director
DIN- 00026078

Independent Assurance Statement

ADITYA BIRLA
HINDALCO

Reasonable Assurance Statement on Business Responsibility and Sustainability Reporting (BRSR- Core) for "Hindalco Industries Limited (HIL)"

For

Reporting Period:

April 01, 2023 – March 31, 2024

BUREAU VERITAS

Bureau Veritas (India) Private Limited

72 Business Park, 9th Floor, MIDC Cross Road 'C', Opp. SEEPZ Gate #2, Andheri (East) Mumbai-400 093 India.

BUREAU VERITAS

Independent Assurance Statement

Introduction and Objective of Work

BUREAU VERITAS has been engaged by Hindalco Industries Limited (hereinafter referred to as **"Hindalco" or "the company"**) for the reporting period from 01.04.2023 to 31.03.2024 based on Business responsibility and Sustainability Report (hereinafter abbreviated as "BRSR") which is a part of its annual report as per SEBI circular (SEBI/HO/CFD/CFD-SEC-2/P/CIR/2023/122,) dated July 12, 2023). Reasonable Assurance is provided for BRSR Core" and in accordance with SEBI BRSR Framework. The verification of the KPI and Sustainability practices adopted by Hindalco Industries Limited at the respective operations and review of documents and non-financial disclosures were conducted on 1st April 2023 to 31st March 2024 as a part of the reasonable assurance of sustainability disclosures.

Intended User

The assurance statement is made solely for "Hindalco Industries Limited and its stakeholders" as per the governing contractual terms and conditions of the assurance engagement contract between "**Hindalco Industries Limited**" and "Bureau Veritas". To the extent that the law permits, we owe no responsibility and do not accept any liability to any party other than "**Hindalco Industries Limited**" for the work we have performed for this assurance report, or our conclusions stated in the paragraph below.

Reporting Criteria

The company has adopted below criteria for preparing the report:

- Business Responsibility and Sustainability Report as per Annexure 1 of the SEBI circular (SEBI/HO/CFD/CFD-SEC-2/P/CIR/2023/122,) dated July 12, 2023) BRSR Core KPIs

Assurance Standards Used

Bureau Veritas conducted reasonable sustainability assurance in accordance with the requirements of International Federation of Accountants (IFAC) International Standard on Assurance Engagement (ISAE) 3000 (Revised), Bureau Veritas has reviewed the information presented in the report against the characteristics of relevance, completeness, materiality, reliability, neutrality, and understandability. Reasonable assurance consists primarily of inquiries and analytical procedures. The procedure performed in reasonable assurance engagement was thorough and comprehensive in nature.

Scope, Boundary, and Limitations of Assurance

Independent assurance has been provided for selected sustainability performance disclosures as presented in the BRSR Report for the following operations in India and the reporting boundary included data and information for the period 01.04.2023 to 31.03.2024:

Units & Mine: Belagavi, Kuppam, Hirakud (Power & Smelter), Hirakud FRP, Aditya, Dahej, Baphlimali.
And Independent assurance has been provided for consolidated data set of following units during corporate audit for selected sustainability performance disclosures as presented in the BRSR Report for following sites:

Independent Assurance Statement

- Units: Renukoot, Renusagar, Mahan, Taloja, Mouda, Alupuram, Muri, Belur, Bhiwadi, Silvassa
- Mines: Gurdari, Amptipani, Amptipani Chirodh, Kujam 1, Kujam 2, Bagru, Bhusar, Hisri New, Hisri Old, Pakhar- 115.13, Pakhar- 109.507, Pakhar- 15.58, Bimarla, Shreandag, Serendag, Jalim & Sanai, Tatijharia, Kudag, Samri, Kathuatia, Garepalma-IV.

The reasonable assurance includes verification of the data and information on selected material BRSR Core topics reported at the followings:

- Green-house gas (GHG) footprint
- Water footprint
- Energy footprint
- Embracing circularity - details related to waste management by the entity
- Enhancing Employee Wellbeing and Safety
- Enabling Gender Diversity in Business
- Enabling Inclusive Development
- Fairness in Engaging with Customers and Suppliers
- Open-ness of business

Limitations and Exclusions

- Data related to the Company's financial performance disclosures.
- Activities and practices followed outside the defined assurance period stated hereinabove.
- Positional statements, expressions of opinion, belief, aim, or future intention by "Hindalco" and statements of future commitment.
- The assurance does not extend to the activities and operations of "Hindalco" outside of the scope and geographical boundaries mentioned in the report as well as the operations undertaken by any other entity that may be associated with or have a business relationship with "Hindalco".
- Compliance with any Environmental, Social, and legal issues related to the regulatory authority.
- Any of the statements related to company aspect or reputation.
- Concentration of purchases: Only 90% purchase amount through trading house is considered (in place of 100%).

The methodology adopted for Assurance

Bureau Veritas sustainability assurance process involves specified procedures to obtain evidence regarding the accuracy and reliability of the data provided related to general and topic-specific standard disclosures. The nature, timing, and extent of procedures selected depend on the data and evidence provided, including the verification of the associated risks with the material topics of the selected sustainability non-financial disclosures and their relevance for the reporting period. Hindalco assessing the associated risks, internal strategy

Independent Assurance Statement

is being considered during the preparation of the report to design the assurance procedure and validate their appropriateness to the possible extent.
As per the scope of the assurance, sample evidence, information, and explanations that were considered necessary in relation to the assurance scope and accordingly conclusions have been made as mentioned below:

- Assessing that the report is prepared in accordance with Sustainability Reporting based on BRSR Standards including BRSR Core parameters applicable on Hindalco and its subsidiaries considered operations for the assurance.
- Assessing that the report is prepared in accordance with the Sustainability Reporting Standards based on BRSR Standards applicable to the operation of Hindalco.
- Understanding the appropriateness of various assumptions used for the estimation of data by Hindalco.
- Reviewing the Report to ensure that there is no misrepresentation of disclosures as per scope of assurance and findings.
- Review of the level of adherence to the BRSR framework for Reasonable Assurance of Core parameters, the reporting framework followed by Hindalco in preparing the report, Assessing the systems used for data compilation and reporting on the basis of BRSR Reporting under core parameters in the assurance scope above.
- Verifying systems and procedures used for quantification, collation, and analysis of sustainability performance disclosures included in the Report.
- Discussions with officials at the corporate office and understanding the risks and opportunities from a sustainability perspective including the strategy that Hindalco has adopted to address the same.
- Assessing the month-wise data considering the similarity, reliability, and accuracy.
  - Verifying selects key performance data through site visits to operational locations and corporate office for:
  - Testing reliability and accuracy of data on a sample basis.
  - Compilation, and reporting of sustainability performance disclosures at the corporate and plant level

- Gap assessment of the present Sustainability Reporting at Hindalco w.r.t. BRSR Core parameters.
- Review of claims and data streams, to determine the level of accuracy of statements in the report, and the reliability of specified sustainability performance – Non-Financial Disclosure Assurance.
- Execution of an audit trail of claims and data streams, to determine the level of accuracy in collection, transcription, and aggregation carried out by Hindalco for preparation of the Sustainability report.
- Ensure that reports provide a balanced and reasonable representation of the organization's positive and negative contributions toward the goal of sustainable development.
- Classifying observations and findings and issuance of Reasonable Assurance Statement.
- Understanding the appropriateness and reliability of various assumptions and calculations adopted for the estimation of data presented in the report.

Independent Assurance Statement

- Reviewing the report, supporting evidence, and documented data to ensure that there is no misrepresentation of disclosures as per the scope of assurance and findings.
- Verifying systems and procedures used for quantification, collation, and analysis of sustainability performance non-financial disclosures included in the report.
- Discussion with concerned personnel at Hindalco Headquarters Corporate Level and Site Level regarding the data presented in the report and the backup data associated.
- Assessing the month-wise data for the reporting period considering the similarity, reliability, and accuracy of the data at respective units
- Review of sustainability performance non-financial disclosures data has been carried out based on review of data provided for respective units mentioned above along with related backup, site visits at Hindalco Corporate office Mumbai.

Conclusions

BRSR Report

Based on BV methodology and the activities described above, it is our opinion that the BRSR for FY 2023-24 of "Hindalco", containing its reporting and declaration of the various parameters from the operations within the reporting boundary and the reporting period, as described above, is prepared in all material respects in line with the applicable criteria here before stated.

Responsibilities

Hindalco Industries Limited is completely responsible for the Report contents, identification of material topics, and data reporting structure. The selection of reporting criteria, reporting period, reporting boundary, monitoring, and measurement of data, preparation, and presentation of information for the report are the sole responsibility of the management of "**Hindalco Industries Limited**". Bureau Veritas (BV) was not involved in the drafting or preparation of the report and any other backup data for the reporting period. The responsibility of BV was to provide reasonable independent assurance for the sustainability of non-financial disclosures as described in the scope of assurance.

The said assessment is properly based on the assumption that the data and information provided in the report is proper and without any discrepancy. Bureau Veritas shall not be held liable or responsible for any type of decision a person or entity would make based on this assurance statement. Hindalco reading the assurance statement, stakeholders shall recognize and accept the limitations and scope as mentioned above.

Uncertainty

The reliability of assurance is subject to uncertainty(ies) that is inherent in the assurance process. Uncertainties stem from limitations in quantification models used, assumptions, or data conversion factors used or may be present in the estimation of data used to arrive at results. Our conclusions with respect to this assurance are naturally subject to any inherent uncertainty(ies) involved in the assurance process.

Statement of independence, impartiality, and competence

Independent Assurance Statement

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social, and Environmental Management with almost 190 years of history in providing independent assurance services.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with "**Hindalco Industries Limited**", its Directors, Managers, or officials beyond that required of this assignment. We have conducted this verification independently and there has been no conflict of interest.

The assurance team has extensive experience in conducting assurance over environmental, social, ethical, and health & safety information, systems, and processes and an excellent understanding of Bureau Veritas standard methodology for the assurance of Sustainability Report as per Global Reporting Initiative (GRI) Standards.

Bureau Veritas (India) Private Limited

72 Business Park, 9th Floor, MIDC Cross Road 'C', Opp. SEEPZ Gate #2, Andheri (East) Mumbai-400 093 India.

Lead Assurer
Kalyan Dey

Team Member
Dr. Apurva Srivastava

Technical Reviewer
Ms. Archana Thakur
Reviewer BVA Schemes

Date: 25/06/2024
Place: India

Independent Assurance Statement

Assurance Statement on Integrated Report of "Hindalco Industries Limited (HIL)"

For

Reporting Period:

April 01, 2023 – March 31, 2024

Bureau Veritas (India) Private Limited

72 Business Park, 9th Floor, MIDC Cross Road 'C', Opp. SEEPZ Gate #2, Andheri (East) Mumbai-400 093 India.

Independent Assurance Statement

Introduction and Objective of Work

BUREAU VERITAS has been engaged by Hindalco Industries Limited (hereinafter referred to as **"Hindalco" or "the company"**) to provide independent assurance of sustainability disclosures reported in the integrated report of **Hindalco Industries Limited** (hereinafter abbreviated as **"Report"**) for the reporting period from 1st April 2023 to 31st March 2024 based on reporting criteria followed for the Integrated report.

Reasonable as well as limited Assurance is provided for IR prepared in accordance with GRI framework. The verification of the KPI and Sustainability practices adopted by **Hindalco** at the respective operations and review of documents and non-financial disclosures were conducted from November 2023 to April 2024 as a part of the reasonable assurance of sustainability disclosures.

Intended User

The assurance statement is made solely for "Hindalco Industries Limited and its stakeholders" as per the governing contractual terms and conditions of the assurance engagement contract between "**Hindalco Industries Limited**" and "Bureau Veritas". To the extent that the law permits, we owe no responsibility and do not accept any liability to any party other than "**Hindalco Industries Limited**" for the work we have performed for this assurance report, or our conclusions stated in the paragraph below.

Reporting Criteria

The company has adopted below criteria for preparing the report:

- The International<IR> Framework (January 2021);
- Global Reporting Initiative (GRI) Standards;
- World Energy Association's Environmental Performance Indicators (GHG Emissions);
- Greenhouse Gas (GHG) Protocol.

Assurance Standards Used

Bureau Veritas conducted reasonable and limited sustainability assurance in accordance with the requirements of International Federation of Accountants (IFAC) International Standard on Assurance Engagement (ISAE) 3000 (revised) Reasonable Assurance & GHG as per ISAE3410. Under this standard, Bureau Veritas has reviewed the information presented in the report against the characteristics of relevance, completeness, materiality, reliability, neutrality, and understandability. Reasonable assurance consists primarily of inquiries and analytical procedures and the procedures performed in a limited assurance engagement vary in nature and are less in extent than for a reasonable assurance engagement.

Scope, Boundary, and Limitations of Assurance

The scope of assurance involves sustainability performance of non-financial disclosures (General and Topic Specific as mentioned below) of the following operations in India for the period 1st April 2023 to 31st March 2024 based on GRI Standards, and GHG protocol.

Independent Assurance Statement

Independent reasonable assurance has been provided for selected sustainability performance disclosures as presented in the Integrated Report for the following operations in India and the reporting boundary included data and information for the period 01.04.2023 to 31.03.2024:

Units and Mine: Belagavi, Kuppam, Hirakud (Power & Smelter), Hirakud FRP, Aditya, Dahej, Baphlimali.

And Independent reasonable assurance has been provided for consolidated data set of following units and mines during corporate audit for selected sustainability performance disclosures as presented in the GRI Report for following sites:

a. Units: Renukoot, Renusagar, Mahan, Taloja, Mouda, Alupuram, Muri, Belur, Bhiwadi, Silvassa,
b. Mines: Gurdari, Amptipani, Amptipani Chirodh, Kujam 1, Kujam 2, Bagru, Bhusar, Hisri New, Hisri Old, Pakhar- 115.13, Pakhar- 109.507, Pakhar- 15.58, Bimarla, Shreandag, Serendag, Jalim & Sanai, Tatijharia, Kudag, Samri, Kathuatia, Garepalma-IV.

Limited assurance has been provided for selected sustainability performance disclosures as presented in the Integrated Report for the following operations in India and the reporting boundary included data and information for the period 01.04.2023 to 31.03.2024:

a. Unit: Utkal and Asoj

And Independent limited assurance has been provided for consolidated data set of following units during corporate audit for selected sustainability performance disclosures as presented in the IR Report for following sites:

b. Unit: Hindalco Aerospace Almex Ltd.

The review of the sustainability performance of non-financial disclosures is limited to the above-mentioned operations of Hindalco Industries Limited only.

The Scope of Sustainability Assurance for IR includes:

- An assessment of the procedures or approaches followed for data compilation and reporting of the sustainability performance non-financial disclosures for specific operations.
- Testing, on a sample basis, of evidence supporting the data.
- Verification of the sample data evidence and information on selected material topics reported at the above-mentioned operations for the defined reporting period.
- Assessment of the suitability between the backup data for the selected sustainability performance non-financial disclosures and the information presented in IR.
- The General and topic-specific sustainability non-financial standard disclosures are subject to reasonable and limited assurance based on the extent of information available for assurance

Independent Assurance Statement

- Completion of assurance statement for inclusion in the report reflecting the verification, findings, and conclusion of the disclosure's assurance. Gap assessment as per GRI standards and World Energy Association, highlights of findings during verification of disclosures, draft assurance statement, final signed assurance statement as per GRI standards compliance

For IR, the reasonable assurance as well as limited assurance was done as listed in the section ***Scope, Boundary, and Limitations of Assurance*** for all the GRI Universal and Topic Specific Standard Disclosures:
An assurance of the data collection and reporting methods for the following selected sustainability performance indicators:

Universal Standard

GRI 2: General Disclosures

- GRI 2.1: Organizational details
- GRI 2.7: Employees
- GRI 2.8: Workers who are not employees
- GRI 2.9: Governance structure and composition
- GRI 2.10: Nomination and selection of the highest governance body
- GRI: 2.11: Chair of the highest governance body
- GRI 2.12: Role of the highest governance body in overseeing the management of impacts
- GRI 2.13: Delegation of responsibility for managing impacts
- GRI 2.17: Collective knowledge of the highest governance body
- GRI 2.27: Compliance with laws & regulations
- GRI 2.28: Membership associations
- GRI 2.30: Collective bargaining agreements
- GRI 3.1: Process to determine material topics
- GRI 3.2: List of material topics

Topic-Specific Standard Disclosures

Environment

- GRI 301: Materials
  - GRI 301-1: Material used by weight or volume
  - GRI 301-2: Recycled Input materials used
- GRI 302: Energy
  - GRI 302-1: Energy Consumption within Organisation
  - GRI 302-3: Energy Intensity
  - GRI 302-4: Reduction of Energy consumption
- GRI 303: Water and Effluent
  - GRI 303-1: Interaction with water as a shared resource
  - GRI 303-2: Management of Water discharge-related impacts
  - GRI 303-3: Water withdrawal
  - GRI 303-4: Water Discharge
  - GRI 303-5- Water Consumption
- GRI 305: Emissions

- GRI 305-1: Direct (Scope 1) GHG Emissions
- GRI 305-2: Indirect (Scope 2) GHG Emissions
- GRI 305-4: GHG Emissions Intensity
- GRI 305-5: Reduction of GHG Emissions
- GRI 305-6: Emissions of Ozone-depleting substances (ODS)
- GRI 305-7: Nitrogen oxides (NOx), Sulfur oxides (SOx) and other significant air emissions

➢ GRI 306: Waste
- GRI 306-1: Waste generation and significant waste-related impacts
- GRI 306-2: Management of significant waste-related impacts
- GRI 306-3: Waste generated
- GRI 306-4: Waste diverted from disposal
- GRI 306-5: Waste directed to disposal

➢ GRI 308: Supplier Environmental Assessment
- GRI 308-1: New Suppliers that were screened using environmental criteria

Social

➢ GRI 401: Employment
- GRI 401-1: New employee hires and employee turnover
- GRI 401-3: Parental leave

➢ GRI 403: Occupational Health and Safety
- GRI 403-5: Worker training on Occupational health and safety
- GRI 403-9: Work-related injuries
- GRI 403-10: Work-related ill health

➢ GRI 404: Training and Education
- GRI 404-1: Training and Education
- GRI 404-3: Percentage of employees receiving regular performance and career development reviews

➢ GRI 405: Diversity and Equal Opportunity
- GRI 405-1: Diversity of governance bodies and employees
- GRI 405-2: Ratio of basic salary and remuneration of women to men

➢ GRI 413: Local Communities
- GRI 413-1: Operations with local community engagement, impact assessments, and developed programs

➢ GRI 414: Supplier Social Assessment
- GRI 414-1: New suppliers that were screened using social criteria

Limitations and Exclusions

The assurance is limited to the above-mentioned scope of work and excludes the information relating to:

- Data related to the Company's financial performance disclosures.
- Activities and practices followed outside the defined assurance period stated hereinabove.
- Positional statements, expressions of opinion, belief, aim, or future intention by "**Hindalco**" and statements of future commitment.

- The assurance does not extend to the activities and operations of "**Hindalco**" outside of the scope and geographical boundaries mentioned in the report as well as the operations undertaken by any other entity that may be associated with or have a business relationship with "**Hindalco Industries Limited"**
- Compliance with any Environmental, Social, and legal issues related to the regulatory authority.
- Any of the statements related to company aspect or reputation.

The methodology adopted for Assurance

Bureau Veritas sustainability assurance process involves specified procedures to obtain evidence regarding the accuracy and reliability of the data provided related to general and topic-specific standard disclosures. The nature, timing, and extent of procedures selected depend on the data and evidence provided, including the verification of the associated risks with the material topics of the selected sustainability non-financial disclosures and their relevance for the reporting period. Hindalco assessing the associated risks, internal strategy is being considered during the preparation of the report to design the assurance procedure and validate their appropriateness to the possible extent.

As per the scope of the assurance, sample evidence, information, and explanations that were considered necessary in relation to the assurance scope and accordingly conclusions have been made as mentioned below:

➢ Assessing that the report is prepared in accordance with Sustainability Reporting based on Global Reporting Initiative (GRI Standards) applicable on Hindalco Industries Limited considered operations for the assurance.
➢ Assessing that the report is prepared in accordance with the Sustainability Reporting Standards based on GRI framework applicable to the operation of Hindalco.
➢ Understanding the appropriateness of various assumptions used for the estimation of data by Hindalco.
➢ Reviewing the Report to ensure that there is no misrepresentation of disclosures as per scope of assurance and findings.
➢ Review of the level of adherence to the GRI framework for Reasonable and limited Assurance of followed by Hindalco in preparing the report, and the principles of Materiality, Inclusivity and Responsiveness, and stakeholder engagement framework deployed at Hindalco.
➢ Assessing the systems used for data compilation and reporting on the basis of GRI Reporting under the assurance scope above.
➢ Verifying systems and procedures used for quantification, collation, and analysis of sustainability performance disclosures included in the Report.
➢ Discussions with officials at the corporate office and understanding the risks and opportunities from a sustainability perspective including the strategy that Hindalco has adopted to address the same.
➢ Assessing the month-wise data considering the similarity, reliability, and accuracy.
  - Verifying selected key performance data through site visits to operational locations and corporate office for:
  - Testing reliability and accuracy of data on a sample basis.
  - Assessing stakeholder engagement process through interactions with relevant internal stakeholders and review of related documentation.

Independent Assurance Statement

- Review of the materiality assessment process.
- Reviewing the processes deployed for collection, compilation, and reporting of sustainability performance disclosures at the corporate and plant level.

- Gap assessment of the present Sustainability Reporting at Hindalco w.r.t. GRI Framework and Reasonable and limited Assurance for parameters mentioned above.
- Discussions with stakeholders, review of stakeholder identification, and selection process.
- Review 'the development of a strategy for the organization relative to its material issues and stakeholder issues and concerns, and the execution of that strategy in terms of proper performance measurement, proper target setting, and proper governance and accountability.
- Review of claims and data streams, to determine the level of accuracy of statements in the report, and the reliability of specified sustainability performance – Non-Financial Disclosure Assurance.
- Execution of an audit trail of claims and data streams, to determine the level of accuracy in collection, transcription, and aggregation carried out by Hindalco for preparation of the Sustainability report;
- Review of the plans, policies, and practices, pertaining to Environmental, Social, and Governance aspects and commitments to assess and evaluate the adequacy and fairness of GRI reporting of the company.
- Ensure that reports provide a balanced and reasonable representation of the organization's positive and negative contributions toward the goal of sustainable development.
- Classifying observations and findings and issuance of Reasonable Assurance Statement
- Assessing the reporting procedures for GHG emissions in accordance with the World Energy Association environmental performance indicator for GHG emissions and GHG Protocol.
- Understanding the appropriateness and reliability of various assumptions and calculations adopted for the estimation of data presented in the report.
- Reviewing the report, supporting evidence, and documented data to ensure that there is no misrepresentation of disclosures as per the scope of assurance and findings.
- Assessing the systems used for data compilation at the respective unit and reporting based on Universal Disclosures and Topic Specific Disclosures of material topics as listed in the assurance scope above.
- Verifying systems and procedures used for quantification, collation, and analysis of sustainability performance non-financial disclosures included in the report.
- Discussion with concerned personnel at Hindalco Headquarters Corporate Level and Site Level regarding the data presented in the report and the backup data associated.
- Assessing the month-wise data for the reporting period considering the similarity, reliability, and accuracy of the data at respective units.
- Review of sustainability performance non-financial disclosures data has been carried out based on review of data provided for respective units along with related backup; site visits conducted at Belagavi, Kuppam, Utkal, Hirakud P&S, Hirakud –FRP, Aditya, Dahej, Asoj, Baphlimali during March and May 2024[1] & Hindalco Corporate office in Mumbai and consolidated data has been checked for sustainability performance non-financial disclosures during corporate audit for above mentioned sites.

[1] Wherever documentary evidence could not be collected during site visits as a part of assurance on-site; the review of data and assessment were carried out off-site upon receipt of information; evidence and information collected during stakeholder consultations.

Independent Assurance Statement

Conclusions
Integrated Report

Based on the procedures followed as mentioned in the scope of work and methodology adopted and the data/evidence obtained, the sustainability performance of non-financial disclosures in the Integrated Report of **Hindalco Industries Limited** is reviewed as per the GRI Standard framework for the reporting period (1st April 2023 to 31st March 2024).

It is concluded based on the assurance review that the information presented in the Integrated Report for **Hindalco Industries Limited** operations in accordance with select sustainability reporting non-financial disclosures of Global Reporting Initiative (GRI Standard) is proper, adequate, reliable, and maintained in line with the material topics and reporting criteria, which Hindalco is solely responsible for consideration.

Responsibilities

Hindalco Industries Limited is completely responsible for the Report contents, identification of material topics, and data reporting structure. The selection of reporting criteria, reporting period, reporting boundary, monitoring, and measurement of data, preparation, and presentation of information for the report are the sole responsibility of the management of "**Hindalco Industries Limited**". Bureau Veritas (BV) was not involved in the drafting or preparation of the report and any other backup data for the reporting period. The responsibility of BV was to provide reasonable and limited independent assurance for the sustainability of non-financial disclosures as described in the scope of assurance.

The said assessment is properly based on the assumption that the data and information provided in the report is proper and without any discrepancy. Bureau Veritas shall not be held liable or responsible for any type of decision a person or entity would make based on this assurance statement. Hindalco reading the assurance statement, stakeholders shall recognize and accept the limitations and scope as mentioned above.

Uncertainty

The reliability of assurance is subject to uncertainty(ies) that is inherent in the assurance process. Uncertainties stem from limitations in quantification models used, assumptions, or data conversion factors used or may be present in the estimation of data used to arrive at results. Our conclusions with respect to this assurance are naturally subject to any inherent uncertainty(ies) involved in the assurance process.

Statement of independence, impartiality, and competence

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social, and Environmental Management with almost 190 years of history in providing independent assurance services.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. We are particularly vigilant in the prevention of conflicts of interest.

Independent Assurance Statement

No member of the assurance team has a business relationship with "**Hindalco Industries Limited**", its Directors, Managers, or officials beyond that required of this assignment. We have conducted this verification independently and there has been no conflict of interest.

The assurance team has extensive experience in conducting assurance over environmental, social, ethical, and health & safety information, systems, and processes and an excellent understanding of Bureau Veritas standard methodology for the assurance of Sustainability Report as per Global Reporting Initiative (GRI) Standards.

Bureau Veritas (India) Private Limited

72 Business Park, 9th Floor, MIDC Cross Road 'C', Opp. SEEPZ Gate #2, Andheri (East) Mumbai-400 093 India.

Lead Assurer
Mr. Kalyan Dey

Team Member
Dr. Apurva Srivastava

Technical Reviewer
Ms. Archana Thakur
Reviewer BVA Schemes
Date: 29/06/2024
Place: Mumbai, India

Hindalco Industries Limited

Registered Office

21st Floor, One Unity Centre, Senapati Bapat Marg,
Prabhadevi, Mumbai – 400013.
Tel: +91 22 69477000/ 69477150 | **Fax:** +91 22 69477001 / 69477090
E-mail: hilinvestors@adityabirla.com
Website: www.hindalco.com
CIN: L27020MH1958PLC011238

Concept, content and design at stirrup | whatsup@stirrup.works