vedanta
transforming for good

Transforming
Together
for a sustainable
future

Contents

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Reimagining Our Way of Doing Business

Transforming Together for a Sustainable Future

We live in a changed world today. A world where the forces of Nature are turning disruptive. To sustain and thrive, businesses, communities and society must alter conventional ways of functioning. Growth and development remain the engines that propel human societies forward into the future. A future that will see India and its 1.4 billion people taking on the role of a protagonist.

It is with an eye to this future that Vedanta decided to embark on its Transforming for Good journey. We were keen to break with the past, and to create precedents for the future. Last year, we recast our vision, and identified the priority tracks that would help us to transform as an organization, in a unified, nurturing and pioneering way. The three pillars of our transformative journey pivot around **Transforming Communities, Transforming the Planet and Transforming the Workplace** and we drive change to achieve the following goals:
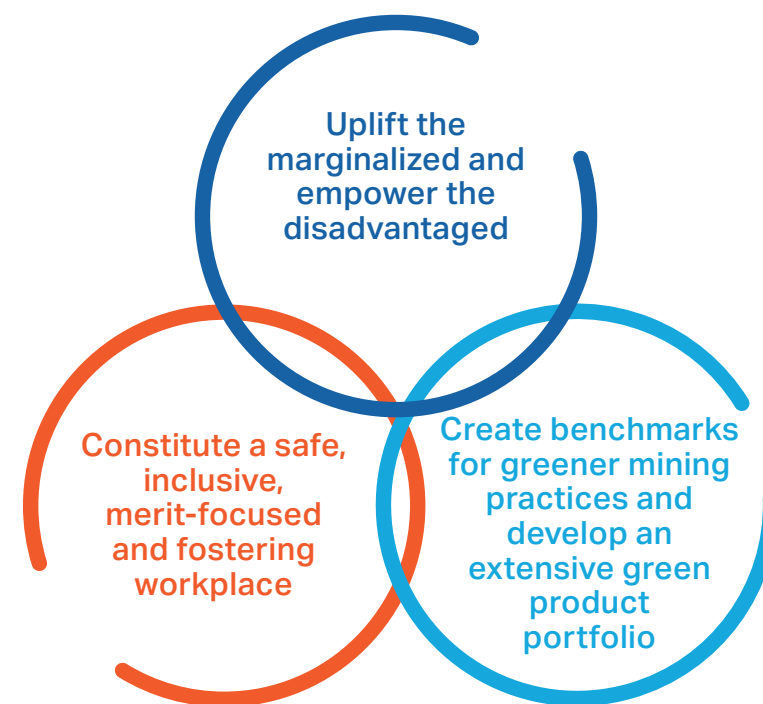
As one of the world's largest diversified natural resources companies we enjoy a pole position in the Indian market and have a significant role to play in the country realizing its growth potential. This growth will go hand in hand with the transition to a low carbon economy. Our leadership position devolves on us the responsibility of interpreting and pioneering this transformational change. We are doing this through the use of best-in-class technologies, and by following a conserve-to-preserve approach. Even as we augment capacities across the world, our new projects are prioritizing on aspects like minimum freshwater use, resource recycling and reuse capabilities, right from the start.

Our Sustainability Goals are articulated through our 9 Aims – which also symbolically represent the close ties with our businesses. We are leveraging our inherent strengths in the 9 metal categories where we are present as market leaders to transform the future in harmony with our 9 Aims. These Aims are underpinned by time-focused, pragmatic targets that are driven through by well-defined and performance-oriented Sustainability key performance indicators. We are harnessing these internal synergies to enlist the support and collaboration of both our internal and external stakeholders and to Transforming Together from the past to the future.

Uplift the marginalized and empower the disadvantaged

Constitute a safe, inclusive, merit-focused and fostering workplace

Create benchmarks for greener mining practices and develop an extensive green product portfolio

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Integrated Thinking

Transforming for Good

Vedanta adopts a comprehensive value creation process that considers all resources and relationships, material issues and strategic focus areas, against the backdrop of our mission and values. Our ESG purpose 'Transforming for Good', supplemented by a more comprehensive 'Transforming Together' theme is deeply embedded into this process.

WE ARE

Led by our mission to create a leading global natural resources company

Building on our experience & inherent advantages to deliver long-term value

Focusing on material issues

Enabled by focus on strategic ESG integration and world-class delivery with a consistent eye on material ESG risks, megatrends and externalities

Creating value for wide range of stakeholders

Investing in technology, relationships and processes

ESG Purpose and Mission

Transforming for Good

Pillars

Commitments and targets

Transforming Communities	*Aim 1* Keep community welfare at the core of business decisions	*Aim 2* Empowering over 2.5 million families with enhanced skillsets	*Aim 3* Uplifting over 100 million women and children through Education, Nutrition, Healthcare and Welfare
Transforming the Planet	*Aim 4* Net-carbon neutrality by 2050 or sooner	*Aim 5* Achieving net water positivity by 2030	*Aim 6* Innovating for a greener business model
Transforming the Workplace	*Aim 7* Prioritising safety and health of all employees	*Aim 8* Promote gender parity, diversity and inclusivity	*Aim 9* Adhere to global business standards of corporate governance

4

Highlights

Transforming Communities

0.6 million
Families skilled

4,533
Nandghars established, catering to 0.32 million women and children annually

11.74 million
Women and children uplifted

INR 3,990+ millions
Total Social Investments

40%
Spent on local procurement

Transforming the Planet

6.25 tCO_2e/MT
GHG emissions intensity

233 MW
RE RTC equivalent used

0.62
Water Positivity ratio

11.32%
reduction in freshwater consumption (from FY 2021 baseline)

Zero
Water related incidents

29.3%
Water recycled

204%
Fly ash utilised

162%
High-Volume-Low-Toxicity Waste utilised

~1 million
Trees planted

100%
operations certified to ISO 14001:2015

Transforming the Workforce

0.52
LTIFR

1.20
TRIFR

13
Fatalities

14%
Women in workforce

25%
Women members of the Board

MSCI BB Rating

- Incentivisation of sustainability performance through executive pay policies

S&P Corporate Sustainability Assessment (DJSI)

- Score: 76
- Included in the DJSI world Index
- Placed second in the Asia Pacific region in the metals and mining sector
- Sixth out of 216 metals & mining companies globally (98th percentile)

CDP B rating

for CDP climate and water

About this Report

The Vedanta Limited Sustainability Report FY 2022-23 presents a comprehensive overview into our sustainability approach and our key performance outcomes across a diverse set of sustainability parameters. Our approach is integrated into all our decision making processes as well as policies, operations, processes, targets and culture that helps to shape our sustainability journey. Vedanta Limited, is a subsidiary of Vedanta Resources Limited and the data, activities and analyses presented here cover the period from April 1st, 2022 to March 31st, 2023.

In this report, we share with our stakeholders the rationale underlying Vedanta's economic, environmental and social strategies, and their scope and impact encompassing the entire value chain from exploration and asset development to extraction, processing and value-accretion activities. Through this report, Vedanta intends to communicate its sustainability commitment, performance against Environment, Social and Governance to a wide range of stakeholders, including employees, investors, customers, business partners, suppliers, lenders, the community, and the government.

The report is prepared in accordance with Global Reporting Initiative (GRI) Standards 2021, and contains additional disclosures aligned with United Nations Sustainable Development Goals (UN SDGs), and United Nations Global Compact (UNGC) Principles.

Through the information shared in our annual sustainability reports, including the current one, Vedanta has consistently acted in favour of transparency, collaboration and mutual understanding, displaying its responsibility and commitment towards practicing safe and responsible business, and a more sustainable future.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Operating structure

Our diversified structure and wide geographic presence enable efficient operations and serviceability

As of 31st March 2023

68.1% → **Vedanta Resources Limited**

Vedanta Limited →

Divisions of Vedanta Ltd.
- Sesa Goa
- Sterlite Copper
- Power (600 MW Jharsuguda)
- Aluminium
- Caim Oil & Gas**

→
- Iron Ore Goa
- Iron Ore Karnataka
- Value-Added Business

→
- Jharsuguda
- Lanjigarh

Subsidiaries of Vedanta Ltd.

64.92%	51%	100%	100%	95.5%	99.99%
Zinc India (HZL)	Bharat Aluminium (BALCO)	Zinc International*	Talwandi Sabo Power (1.980 MW)	ESL Steel Limited	Ferro Alloy Corporation Ltd. (FACOR)

■ Listed entities   ■ Unlisted entities

*Skorpion - 100% BMM & Gamsberg - 75%

**50% of the share in the RJ Block in held by a subsidiary of Vedanta Limited

Scope and Boundary

Vedanta's annual sustainability report presents material information pertaining to Vedanta Limited's businesses, and subsidiaries including zinc-lead-silver, oil & gas, aluminium, power, iron ore, steel, and copper. The report covers assets located in India, South Africa, Namibia, Ireland, Australia, Liberia and UAE. The report boundary aligns with our consolidated financial statements.
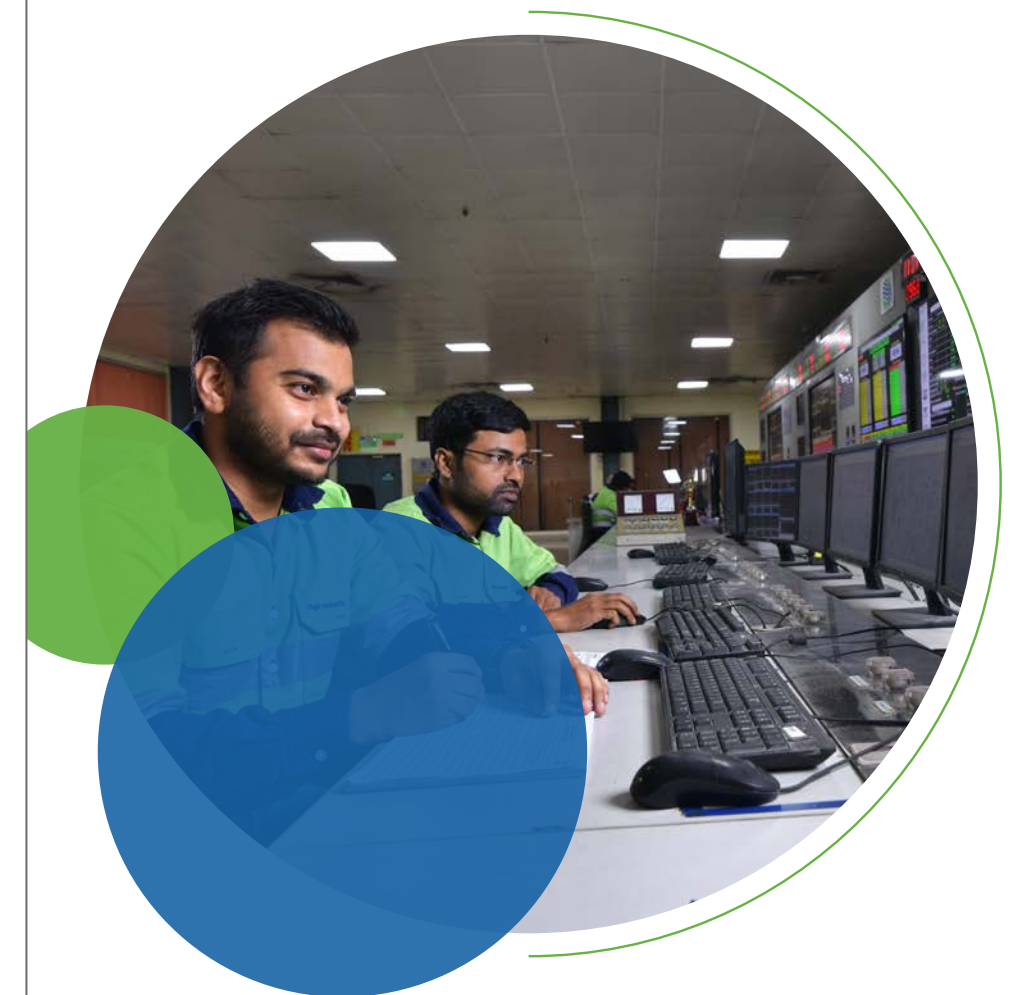
Data Compilation Methodology and Assurance

Data presented in this report is sourced from respective corporate functions within our business units. All calculations and underlying assumptions involved have been explained throughout the report, wherever applicable. The reported figures in the report are the consolidated numbers, aggregated for the entities covered in the report.

Ernst & Young Associates LLP is Vedanta's independent third-party assurance partner, who was engaged for the financial year 2022-23 to provide limited assurance over selected sustainability key performance indicators whereas energy, emission and water related indicators undergo comprehensive assurance. The quality of information contained in this report is maintained by following a robust assurance process, leveraging our internal expertise for montly data verification and hiring a third-party assurance provider for half yearly data verification. Details about the methodology, metrics, framework and boundary can be accessed in the Assurance Statement on page 145.

Reporting Suite

This report should be read along with our Annual Integrated Report, BRSR, Tax Transparency Report and, standalone TCFD Report. References have been added throughout the report for better consistency and alignment.

You can find this report and others, including our Integrated Annual Report, TCFD Report (which includes our Climate Action disclosures), and the Tax Transparency Reports for current and previous years on our corporate website: https://www.vedantalimited.com/eng/

Restatement of information

Changes in systems and measurement methodologies can sometimes create a need for restating previously reported data. Restatements occur when there is a modification in measurement methodology or an error in the information previously disclosed, which has the potential to impact users' decision-making. Additionally, restatements may be necessary in cases of significant changes in reporting parameters, such as mergers, acquisitions, or divestments. These material restatements and the effect of restatement, wherever applicable, are provided as footnotes in the report and on our website: https://www.vedantalimited.com/eng/

We appreciate your feedback on this report or any other aspect of our sustainability performance. Please do share your comments or inquiries by emailing us at esg@vedanta.co.in. For a comprehensive list of contacts at Vedanta, kindly visit our website's "Contact Us" section.

Transforming Together for a Sustainable Future

In Conversation with the Chairman

> "Transforming for Good," encourages group efforts for achieving inclusive, responsible, and value-added growth. To provide real advantages to all stakeholders, these efforts will be driven by environmental stewardship and social equity, while working within a framework of strong governance.

Anil Agarwal
Non-Executive Chairman

As India ascends to a position of power and leadership in the global arena, self-reliance in its energy and metals and mining sources will be crucial for reaching this position. Vedanta with its portfolio of nine key metals and minerals and vision of contributing to nearly 50% of the nation's oil and gas production, has a pivotal role to play. We are boosting production and investing to diversify our portfolio of assets in support of this. Our Transforming for Good initiative seeks to make a difference across the three pillars of planet, workforce and communities to create change that is deep rooted.

India's growth to greater economic might will be unique, as it will be a low-carbon based, necessitating unprecedented ingenuity and innovation. The Vedanta Group's non-executive Chairman, Anil Agarwal, takes us through a host of issues covering the Company's plans for the future; our vision for meeting the dual national priorities of low carbon use and fast-track economic growth; the significance of ESG leadership and how Vedanta continues to assure steady shareholder returns through prudent management and exemplary governance.

Vedanta has the vision of "Transforming for Good". What are some of the key moves that you are making towards realizing this vision?

Over the next few decades India will be taking a path that no nation has taken before. It will be targeting the highest economic growth rates in the world while lowering its carbon emissions to reach Net Zero by 2070. Those are tough targets to meet by any standards.

For a country as large as India to reach its decarbonization targets without compromising on equitable social development, we will have to start doing things very differently from the way we have done them so far. This is embodied in our vision, "Transforming for Good," which encourages group efforts to achieve inclusive, responsible, and value-added growth.

Vedanta sees a bright future for itself as we partner in India's growth. Our strong position in base metals, which we are consolidating further, will give us an advantage. We are also focusing on ESG leadership as a strategic lever to excel on all operational parameters. Simultaneously, we are also diversifying and strengthening our talent pipeline, securing our bonds with the community and enhancing the public support that we derive. Well-founded ESG leadership, that makes a long-lasting difference in its areas of impact, is a business differentiator and we hope to entrench our position as a low cost producer in this way. Structural cost reduction and operational efficiencies are well underway, and has helped our aluminium and zinc verticals to deliver a record performance. We will be scaling up these learnings across our businesses, to do more with less and reduce our footprint too.

Fortifying our position as a low cost producer would also answer our inclusive goal as we provide alternatives to those customer groups that have big ambitions but modest means of reaching them.

In all these ways, we can serve as a role model for other emerging economies on their journey of energy transition, and low-carbon growth and development.

So, "Transforming for Good" is a very broad concept and we hope to achieve a lot, across as many areas, as our initiatives spread and mature.

In your opinion, what is Vedanta's role in helping India achieve self-reliance in minerals and metals and in its energy transitioning by 2070?

India's commitment towards achieving Net Zero emissions by 2070 has been a major turning point in the global effort to combat climate change. India is setting the bar for a novel approach to economic growth that might sidestep the carbon-intensive strategies many nations have previously adopted and it can serve as a model for other emerging markets. India's improved outlook in many ways is attributable to the government's quest for self-reliance in manufacturing, minerals and resources. While several countries have found themselves precariously positioned, given their dependence on others for key resources, India finds itself in an advantageous position, particularly in creating a resilient supply chain and indigenous manufacturing.

Vedanta has a portfolio of nine metals and minerals that play a significant role in the development of the country and in achieving India's energy and mineral independence.

We envision playing an even greater role in the nation's growth and in enabling India to become self-reliant in minerals and energy. Vedanta is already expanding its capacities in the aluminium and zinc sectors. Additionally, our oil and gas operations, are expanding their reserves with a vision to contribute 50% to India's total oil and gas production. To strengthen our assets and boost production, we have invested USD 1.2 billion in growth capital expenditures in FY 2023. Looking ahead, we anticipate committing an additional USD 1.7 billion in FY 2024 for various growth projects. Promoting further investment in the mining of these metals and minerals can support the transition to a just society and to combat climate change. These opportunities open avenues for fruitful collaboration with the government and stakeholders at large, to create a sustainable future.

Vedanta has been taking several initiatives in support of our organization's Net Carbon Zero goal. Further, by 2030, we hope to have 2.5 GW of continuously operating renewable energy (RE RTC) capacity. We have also implemented an innovative, market-leading EV policy that will unify our transition to EVs, and we are on schedule to completely decarbonize our fleet of light motor vehicles by 2030.

Going forward, what are some of the core areas of focus for Vedanta in the next decade?

Our goal of 'Transforming Together' envisages a world that is much more environment-friendly, sustainable and regenerative. Energy transitioning has accelerated across the globe and the

significance and need for mined commodities is now better appreciated.

Creating a greener product portfolio and providing a diverse mix of products that address a variety of needs is major priority for us, and we are continuously driving innovation in this area. We have already launched two carbon-light and ultra-carbon light aluminium products and similar efforts are underway. Greener products are the true litmus test for our 'Transforming Together' endeavour – as a manufacturer we are trying to make such alternatives available that serve the needs of the planet and also of its people. It is upto our stakeholders to support, adopt and endorse such products, as only then will the transformation be truly sustainable.

We will also continue with our strategic investments and prudent financial management to ensure steady shareholder returns and long-term sustainable growth.
We have been continuously investing in volume expansion, backward integration and value-added goods creation, and in quickly expanding digitalization. All such moves will continue as opportunities emerge and business priorities evolve. Our focus remains on lean operations and on growth that is backed by strong governance practices.

Vedanta has been running large-scale community impact programmes for several decades. Please take us through what has been achieved so far and your future areas of focus.

We have a vision of enhancing the well-being of communities across India by uplifting 100 million women and children through education, healthcare and welfare programs. At Vedanta, we promote equal access to education, healthcare, nutrition and sanitation to create opportunities for people to improve their lives. This includes ensuring that the children we support complete secondary education and ending hunger and malnutrition in our communities by 2030.

I am proud to say that in FY23, we have made remarkable strides towards combatting malnutrition and achieving zero hunger. This year, Nand Ghar has expanded to 4,500+ locations across 14 states, significantly increasing its reach. As a part of its nutritional improvement impetus, Nand Ghar has introduced a multi-millet nutribar to ensure comprehensive nourishment for every child in alignment with the International Year of Millets and the Poshan 2.0 initiative to enhance nutritional security.

Furthermore, our targeted social impact interventions continue to positively transform the lives of our communities. I am delighted to share that this year, we have touched the lives of 44 million community members in India and abroad, bringing about positive change.
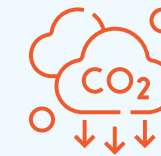
Vedanta has committed to achieve

Net Zero Carbon
by 2050 or sooner.

This year, Nand Ghar has expanded to

4,500+
locations across 14 states

Taking stock on the first year of our transformation journey

In Conversation with the Group CEO & Chief Safety Officer

> **Our ESG journey has helped us uphold the utmost levels of excellence and integrity, aiming to attain sustainable and responsible growth in collaboration with all stakeholders.**

Sunil Duggal
Group CEO & Chief Safety Officer

FY 2022-23 proved to be a precursor for the future, as we saw India's economy breaking away from the rest of the world to define its own unique growth numbers. Driven by healthy macroeconomic fundamentals and domestic consumption, FY2023 saw India reaching an impressive 6.8% GDP growth. Developed countries, including China, saw subdued growth in the face of inflation and recessionary pressures.

High commodity prices, however, affected bottom line growth for Indian businesses in the first half of the year. Against this backdrop, Vedanta has posted a commendable financial performance. Our consistent operational efficiencies and strong cost control has made us a much more resilient company, solidifying the competitive advantage that we command.

The company's ESG goals cover an extremely broad canvas, reflecting our philosophy of "Transforming for Good" by taking the responsibility for environmental stewardship via decarbonization, the circular economy, water positivity and bringing long-lasting positive social change at the bottom of the pyramid.

In this conversation with Vedanta's Group CEO & Chief Safety Officer, Sunil Duggal, we are acquainted with the company's Sustainability and ESG vision and the underlying rationale and impact targeted.

How would you describe the transformation achieved as a part of Vedanta's ESG journey?

At Vedanta, we have always been committed towards sustainable and responsible mining practices. We acknowledge the significant impact that our operations can have on local communities, ecosystems, and the environment. To address this, we have put in place a comprehensive sustainability framework that acts as an anchor and a check, balancing the larger environmental and humanitarian concerns against business needs and exigencies. All our decision-making processes thus answer to the dual needs of harmonizing economic progress with environmental, social, and governance (ESG) considerations.

The past year was a challenging one due to the unpredictable macroeconomic environment caused by the ongoing Russia-Ukraine conflict. However, we adopted a holistic approach and could achieve excellent operating performance despite the external shocks and the need for realignment of our supply chains. Our guiding philosophy of 'Transforming for Good,' helped our efforts by fostering a more integrated business approach both in terms of our operational and external outcomes, thereby leading to value-accretive growth.

How has Vedanta's sustainability agenda supported the overall performance of the company?

As India's largest diversified natural resources company and one of the global giants in metals, mining, and energy, Vedanta holds a unique advantage in India's pursuit of self-reliance.

Our exceptional mining expertise is bolstered by cutting-edge technology and a talented workforce, combined with a robust value-added portfolio, and we are well-positioned to seize the emerging growth opportunities.

To address business risks that are most likely to arise from environmental crises, Vedanta has taken several strategic goals that act to mitigate climate change and nature loss. Our ambitious targets for decarbonization, practice of circularity and water positivity are in line with the UN's Sustainable Development Goals, and we continue to align our performance with sectoral and global best practices.

To help realize our "net zero" targets, we have signed renewable energy power delivery agreements (PDAs) that will bring 788 MW of round-the-clock equivalent renewable power to our businesses. Three additional facilities operated by us have turned water positive, highlighting the progress that we are making.

Vedanta believes in responsible growth, and we work with our adjacent communities to improve their lives through our efforts. Our flagship initiative, Nand Ghar, has been actively working to improve the Aanganwadi ecosystem in India and helps close the urban-rural divide. We currently have Nand Ghars in 14 states, and these have helped 3.2 lakh women and children by providing them with healthcare, food and education.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Our vision of "Transforming for Good," has been crucial. It has helped us meet the expectations of our community members and stakeholders while also establishing a position of leadership in ESG implementation. This year's theme of "Transforming Together" captures our collective vigour and passion to generate value for everyone.

Our performance on important external rating systems including the Dow Jones Sustainability Indexes, Sustainalytics, MSCI, and CDP has significantly improved because of our ESG activities. Vedanta now ranks sixth on the Dow Jones Sustainability Index, among top 10 diversified metals and mining peers. Additionally, Vedanta and several of our Group companies have won many prizes on reputable platforms in the areas of finance, operational efficiency, CSR, and human resources. These accolades reflect on the responsibility and competence with which we carry out our product manufacturing journey, our impressive portfolio and our capable leadership team.

How has the "Transforming for Good" vision helped to integrate Vedanta's internal processes and governance and business administration mechanisms?

We place a strong emphasis on upholding good governance practices, supported by rigorous policies and frameworks that drive accountability and transparency. Through our vision of "Transforming for Good" we aim for integrated growth and every business unit is linked to this shared vision. "Transforming for Good" has helped us to set larger, long-term targets, replacing the earlier practice of annual plans and ESG

reporting, and spotlighting of individual positive developments. Under this shared vision of incremental transformation, we work on accepted pathways and can achieve a huge difference through ongoing initiatives and linkages. Our disclosures now highlight the collective progress and direction of Vedanta as a whole.

This clear definition of our trajectory has also fostered alignment and motivation among our leaders. We are no longer merely measuring ourselves against self-imposed standards; rather, we are driven by a larger purpose, and this is a profound and transformative shift.

The Board ESG Committee has been supportive of our goals and monitors our performance. Along with the ESG ManCom, this committee provided direction and oversight over the large volume of work that is being carried out by the 14 Communities of Practice (CoP), who are responsible for delivering on our ESG agenda. There are more than 1,000 projects – big and small – currently underway to deliver on our nine ESG aims.

Going forward, what is the vision for Vedanta's ESG journey?

Our primary objective is to strengthen our position as a leader and unlock value through the execution of growth projects, while also prioritizing on our ESG goals, innovation, digitalization and safety. In FY 2022, we changed our business planning methodology and each of our businesses developed comprehensive business plans addressing each of Vedanta's nine individual aims. This approach continued into FY 2023 and will also be followed in FY 2024. However, from FY 2024 onwards these ESG business plans will no

longer solely focus on short-term targets. Rather their horizons will extend till 2030, making way for broader targets and programmes with greater, accretive impact. This approach is a part of our "Transforming for Good" vision.

We are committed to enhancing the skills of emerging leaders, empowering women, and fostering strong relationships with our business partners through various flagship programmes. Ensuring the health and safety of our people and other stakeholders will continue to be of utmost importance.

We make regular, planned investments to create zero-harm environments, where our people can work with security and peace of mind. This year, we have had 13 fatalities. This is a very unfortunate situation, and we deeply regret the precious loss of lives. These unfortunate occurrences have hardened our resolve to build a safe workplace.

We have adopted the Incident Cause Analysis Method (ICAM) investigation process to scrutinize all fatalities and high-potential incidents in detail, enabling us to identify the root cause of each incident and create a corrective and preventive action (CAPA) plan to avoid future occurrences. Moreover, we have launched a cross-business audit to ensure that the best safety practices are being implemented across all our operations. Our business unit CEOs are tirelessly working towards the complete resolution of 100% of the CAPA learnings. The objective of this process is to illustrate and establish and create a shared understanding of safety risks within the organization.

In all these ways we are trying to create a safe and secure workplace for our employees that can become an industry benchmark.

Supported
0.32 million
women and children by providing them with healthcare, food, and education.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Vedanta at a Glance

Vedanta Limited is one of the world's largest publicly owned metals and mining conglomerate with diversified interests across the natural resources sector. Headquartered in Mumbai, India, our presence spans across zinc-lead-silver, oil & gas, aluminium, power, iron ore, steel and copper – all materials that the world needs for its progress. We make these resources available in the most responsible and safest ways, through the use of advanced technologies and robust practices.

Founded in 1965, our growth has mirrored the maturing of India's industrial development, and we have emerged as the country's largest natural resources business. Having a large and diverse product portfolio for the Indian market is of high significance, given the country's huge growth potential and our well-entrenched presence here. India, South Africa, Namibia, Ireland, Australia, Liberia and UAE drive global best practices and operational excellence across all our facilities. For in our business, every drop counts, every particle matters.

Committed to human growth and economic development, our commercial focus is enlightened with stewardship, and we ensure optimal presence in the world's future growth markets, to bridge the gap between potential and means for realization.

Vedanta Limited is listed on the Bombay Stock Exchange and the National Stock Exchange.
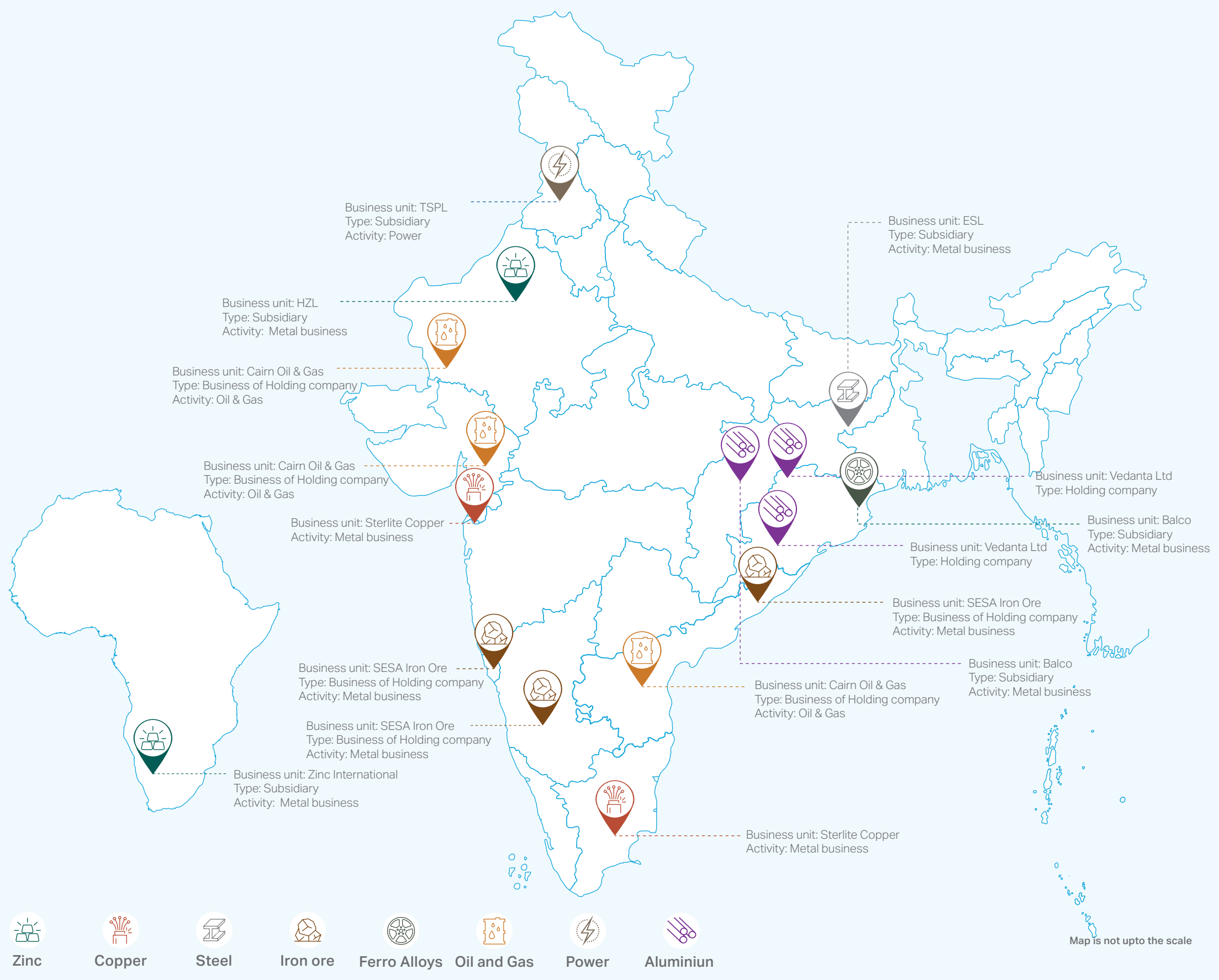
KEY STATISTICS

Revenue
INR 1,454,040
million

Total workforce
87,513

Payment to Government*
INR 110,230
million

*in form of direct and indirect taxes.

Business unit: TSPL
Type: Subsidiary
Activity: Power

Business unit: ESL
Type: Subsidiary
Activity: Metal business

Business unit: HZL
Type: Subsidiary
Activity: Metal business

Business unit: Cairn Oil & Gas
Type: Business of Holding company
Activity: Oil & Gas

Business unit: Cairn Oil & Gas
Type: Business of Holding company
Activity: Oil & Gas

Business unit: Sterlite Copper
Activity: Metal business

Business unit: Vedanta Ltd
Type: Holding company

Business unit: Balco
Type: Subsidiary
Activity: Metal business

Business unit: Vedanta Ltd
Type: Holding company

Business unit: SESA Iron Ore
Type: Business of Holding company
Activity: Metal business

Business unit: Balco
Type: Subsidiary
Activity: Metal business

Business unit: SESA Iron Ore
Type: Business of Holding company
Activity: Metal business

Business unit: Cairn Oil & Gas
Type: Business of Holding company
Activity: Oil & Gas

Business unit: SESA Iron Ore
Type: Business of Holding company
Activity: Metal business

Business unit: Zinc International
Type: Subsidiary
Activity: Metal business

Business unit: Sterlite Copper
Activity: Metal business

Map is not upto the scale

Zinc | **Copper** | **Steel** | **Iron ore** | **Ferro Alloys** | **Oil and Gas** | **Power** | **Aluminiun**

Products and Production

Vedanta is a leading global supplier of natural resources. We operate an end-to-end value chain across the natural resources verticals where we are present, driving cost and operational synergies and offering a comprehensive portfolio to our customers. Our value chain extends from identifying mineral deposits to carefully developing the resource base, to safe and efficient extraction and processing and lastly, delivery of the final products. We continually add to our asset base and ensure the longevity of resources through large-scale investments in greenfield and brownfield expansion projects. We deploy cutting-edge technologies and follow integrated processes so that operations are exact, efficient and self-sustaining, helping us reduce costs while improving profitability. As the demand for responsibly sourced products keeps increasing it is important to strike a balance between efficient production, conservation of nature and growth opportunities so that the interests of progress and profitability can both be met.

Zinc India
16.74 million tonnes of ore produced

Steel Copper India
1.37 million tonnes of hot metal produced

Zinc International
208 kt metal produced

Iron Ore
5.3 million tonnes of saleable ore produced

Aluminium
2,291 kt

Power
14,835 million units

Copper India
148 kt of cathode production from Silvassa

Oil & Gas
143 kboep

FACOR
290 kt of chrome ore

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Sustainability Approach

Making sustainability the fulcrum of what drives us

Environmental sustainability is central to the sustenance of human societies. This inviolable truth has meant businesses must reorient their ways of working and review and mitigate the impact of their operations. The urgency of climate change has meant this transformation must be quick, visible and distinctly different from what was once acceptable.

Governments, regulatory bodies, customers and citizens are collectively in favour of 'responsible' businesses. Likewise, nurture and stewardship of the environment, innovation and out-of-the-box approaches that support, maintain and replenish natural elements are lauded and celebrated. Clearly, brands and reputations have much to gain from being environmentally and socially responsible.

As a natural resource company we are sensitive to these vulnerabilities and equally cognizant of how essential sustainability is. For long we have used sustainability as a foundational rationale for structuring our businesses, designing our operations and identifying our priorities. For without sustainability as the fulcrum of our business strategy, we stand the risk of overlaying considerations that can harm our long-term interests as societies and economies embrace green safeguards even more extensively. With our purpose determined, the transformation is underway.

Vedanta for the future, scripted in today

Managing the multiple facets of Environment, Social and Governance is critical for our commercial well-being and operational performance, and will help to preserve Vedanta's enterprise value and ensure business continuity and longevity.

WE ENVISION VEDANTA TO BE ABLE TO

Resolve global environmental and societal challenges through its products & solutions.

Support the nation's economic and developmental aspirations

Lead and guide other industries by being a front-runner.

Making sustainability deep rooted

Realization of our business objectives rest on our ability to maintain social license and achieve impeccable Environmental, Social and Governance (ESG) credentials. To achieve these objectives, it is important to build an organization that has deep roots in sustainability and fully believes in the need for it. It is equally important to build partnerships with like-minded entities who share our conviction and passion for positive impact. Further, inculcating an innovation mindset that looks beyond the norm and can find creative ways to reach a larger goal, is also important.

Our Sustainability strategy considers and acts on key stakeholder expectations around climate change, human rights, safe work conditions, environmental stewardship, diversity and inclusion and good governance. The three-pillar strategy comprises of nine aims, through which we drive sustainability outcomes across our communities, the workforce, and the planet.

Transforming communities

Our commitment is towards maintaining our 'social license to operate' by conducting ourselves in a consultative, transparent, and fair manner, and delivering both economic and social benefits to society as a whole.

Transforming the planet

Our commitment lies in spearheading efforts to decarbonize the world, secure water resources for all, and incorporate technological advancements to ensure our operations are environmentally sustainable.

Transforming the workplace

Our commitment is towards adopting innovative approaches for managing our workforce, designing compelling employee experiences and ensuring a safe workplace.
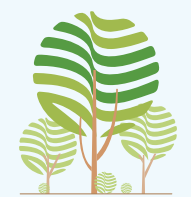
16

Sustainability Action Plan

Transforming Communities

Aim 1
Keeping community welfare at the core of business decisions

Aim 2
Empowering over 2.5 million families with enhanced skillsets

Aim 3
Uplifting over 100 million women and children through education, nutrition, healthcare and welfare

Transforming the Planet

Aim 4
Net-carbon neutrality by 2050 or sooner

Aim 5
Achieving net water positivity by 2030

Aim 6
Innovations for a greener business model

Transforming the Workplace

Aim 7
Prioritizing safety and health of all employees

Aim 8
Promote gender parity, diversity and inclusivity

Aim 9
Adhere to global business standards of corporate governance

Sustainability Governance

The Board of Directors has the responsibility of ensuring that the organization stays aligned with its sustainability strategy and oversees performance and takes necessary proactive action. The Board fulfils its supervisory role in active consultation with the ESG Board Committee, and always considers the interests of various stakeholders with respect to the execution and impact of the company's sustainability activities. ESG Committee is assigned with the responsibility of overseeing Vedanta's most significant sustainability issues.
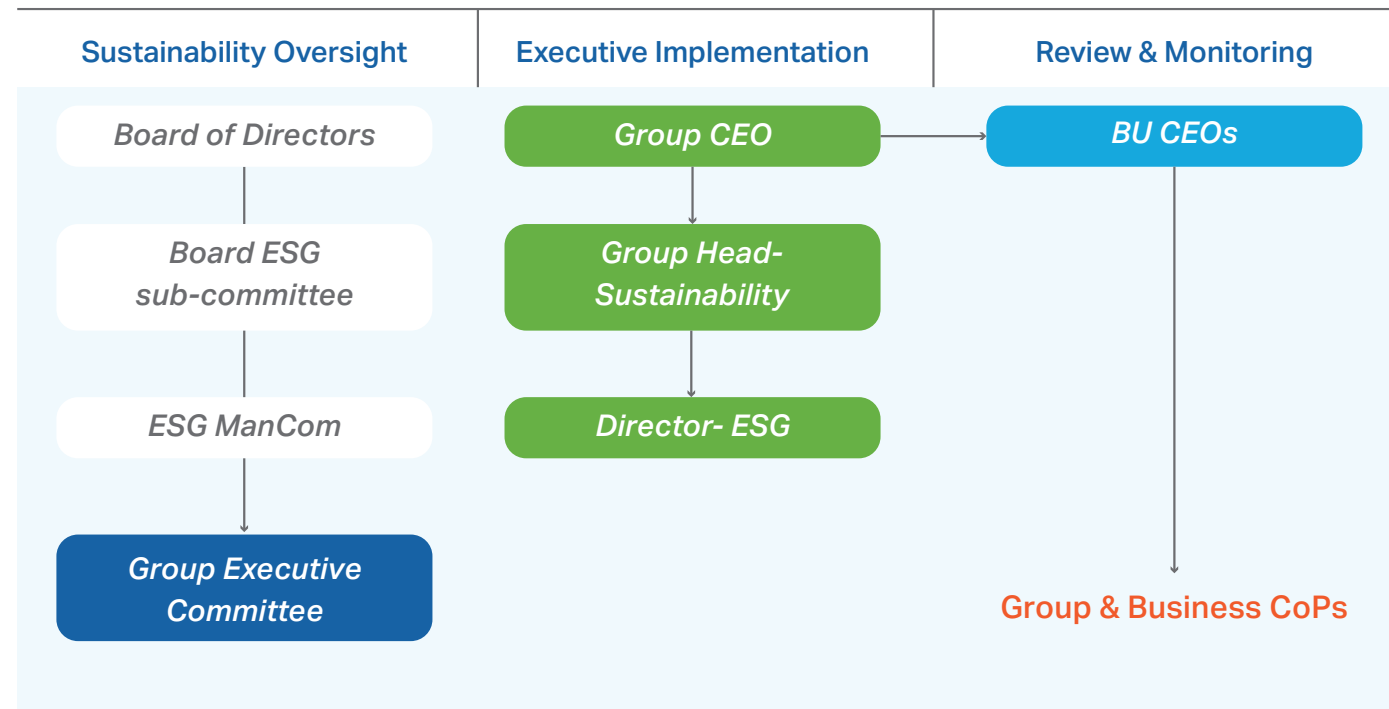
UK Sinha
Chairperson

Priya Agarwal
Member

Sunil Duggal
Member

Akhilesh Joshi
Member

Chaired by Independent Director, Mr. UK Sinha, the ESG Board Committee meets quarterly and comprises of Ms. Priya Agarwal (Non-executive Director), Sunil Duggal (Whole-time Director & CEO) and

Mr. Akhilesh Joshi (Independent Director) among others. The Committee is responsible for implementing, promoting, and monitoring initiatives under our 'Transforming for Good' agenda.

Sustainability Oversight	Executive Implementation	Review & Monitoring
Board of Directors	Group CEO	BU CEOs
Board ESG sub-committee	Group Head-Sustainability	
ESG ManCom	Director- ESG	
Group Executive Committee		Group & Business CoPs

Together with our Group ESG function, we have established dedicated forums at various management levels, as well as ESG-themed communities within each Business Unit (BU) and Strategic Business Unit (SBU) to ensure effective oversight and timely execution of ESG initiatives. These Communities of Practice (CoP) take ownership of specific ESG Key Performance Indicators (KPIs) and play a vital role in driving their successful implementation. Workplace health and safety; supply chain sustainability; water, waste, biodiversity, and air quality management; tailings facility management and emergency response plans; emissions and climate

change; engagement with communities and indigenous peoples; diversity at workplace and human rights are some of the areas under the purview of these communities.

The 14 CoPs and the RE Steering Committee, led by experienced professionals within our organization, have a strong framework in place to drive specific ESG KPIs. This robust approach to ESG management guarantees that sustainability remains fully integrated into our business practices and allows us to continue our transformative journey for the betterment of society and the environment.

Vedanta Sustainability Framework (VSF):

Our framework for implementation

Vedanta Sustainability Framework (VSF) is a comprehensive approach that guides us in integrating sustainability into all our business operations and decision-making processes. The framework is designed to address key environmental, social, and governance (ESG) issues and to drive positive impacts across the value chain in line with global standards of international bodies like International Council on Mining and Metals (ICMM), International Finance Corporation (IFC), Organisation for Economic Co-operation and Development (OECD), United Nations Global Compact (UNGC) and SDGs.

9 sustainability policies

- Health & Safety, Energy & Carbon, Water Management, Biodiversity, Social Performance, Human Rights, Supplier Sustainability Management, Environmental, Tailings Management

92 Standards & Guidance Notes

- Covering all policy subject areas
- Aligned with ICMM, IFC Performance Standards, Global Reporting Initiative (GRI)

Robust Monitoring

- Annual VSAP audit conducted at all Vedanta locations to check compliance with VSF
- Monitored by ExCo

Vedanta Sustainability Assurance Process (VSAP)

Vedanta Sustainability Assurance Process or VSAP, is a tool used by Vedanta to assess the compliance of all our business units with the Vedanta Sustainability Framework. It plays a crucial role in ensuring that sustainability considerations are effectively integrated into all decision-making processes and actions across the organization, and aims at driving continuous improvement and accountability in sustainability practices.

We consistently foster a culture that upholds world-class standards in safety, environmental stewardship, and sustainability.

To further embed this culture, ESG criteria have been made a mandatory KPI for leadership during annual performance appraisals and increment cycles. We follow a formal scorecard-based performance management approach across the entire organization, providing a unified experience for all full-time employees.

Executives driving the ESG agenda for the Group carry significant weightage in these evaluations, with the compensation structure comprising elements such as fixed pay, benefits, annual bonuses, the Long-Term Incentive Plan (LTIP), and components that consider holistic employee growth and well-being.

Executive compensation linked to ESG

Compensation Topics	Brief Summary	Impact	Details
Scorecard-based KPIs	Emphasis on objective and transparent KPIs	Annual performance rating and fixed pay	ESG is a mandatory KPI for all employees including senior leaders – to foster a culture of safety/sustainability
ESG component in annual performance bonus	Safety/sustainability scorecards have a 15% weightage VSAP Audit has extensive factors in place – a total of 70 guidance factors	Annual bonus pay-out	A minimum score of 70% is needed in VSAP audit as a threshold for pay-out under this component. **Assurance Models** (Compliance, New Projects, Process Safety) etc. **Safety Focus Works** (Work at Height, Confined Space, etc)
Integration of fatalities into annual bonus	Fatalities are a negative multiplier on the overall performance (not just the ESG component)	Annual bonus pay-out	10% reduction on one fatality – leading to potential 25% reduction overall in case of multiple fatalities
Focus on long-term sustenance	Integration of ESG into long-term strategic KPIs	Long-term incentive payout	'Long term strategic sustainable' objectives have a weightage of 1/3
ESG framework in LTIP plans	Carbon footprint and fatalities integrated into long-term incentive plan	Long-term incentive payout	**Carbon footprint** 15% weightage in business performance (40% of total weightage) in scheme **Fatalities** 10% additional pay-out kicker in case of no fatalities during the vesting period

Bringing in systemic change, with an ESG focus

Message from Priya Agarwal Hebbar

> " Under our "Transforming for Good" vision we also have several key social goals covering diversity and inclusion, education, primary healthcare, sanitation and hygiene, livelihood creation and wildlife conservation and animal welfare. "

Priya Agarwal Hebbar
Non-Executive Director

At Vedanta, we continue to build long-term value for our stakeholders while working to position ourselves as a sustainability leader in the natural resources industry. We are living at a defining moment in human history where the impact of industrialization and ecological disorder is all around us. Twenty first century business leaders must break from the past to establish carbon-light, socially supportive ways of growth and progress. This puts ESG at the center of corporate decision-making.

Defining new industry standards

Vedanta has been a frontrunner in practicing ESG-centred thinking. We are one of the largest natural resources companies in the world, and produce nine out of the 17 transition metals that green manufacturing and carbon-light technology solutions will need to metamorphose the present towards a more sustainable future. We view our role as an active agent in making this future a reality. As an industry leader, we have been actively incorporating sustainability and extensive ESG orientation into our operations, community outreaches and corporate practices. Our vision of Transforming for Good is focused on integrating all-round sustainability within our process technologies, to progressively lighten long-term adverse impact. We have our sights set on 2030, for reaching multiple ESG goals. By that time, we have committed to reducing 25% of our GHG emissions, decarbonizing our transportation fleet, running 2.5 GW-worth of our operations on RTC-RE, becoming 100% water positive, planting more than 7 million trees (as a part of WEF's One Trillion Trees programme) and ensuring that

one-fifth of our workforce are women. These definite goals showcase the priorities that we hold close to our hearts – ensuring cleaner air, reduced global warming, abundant water and a fairer society. By doing so, we will also de-risk our business and create greater self-sufficiency and resilience.

Today, the role of ESG in strengthening business resilience, cost conservation and profitability are well accepted. We have been on the ESG integration journey for more than a decade now and each day we work rigorously, inching closer to our goal of being one of the 'greenest' and most 'people oriented' metals and mining producers. We are proud of all that we have so far achieved:

- Our GHG intensity (TCO_2e/INR Mn) has reduced by nearly 30% against a FY2021 baseline

- RE usage has increased 14 times since FY20. We target spending USD 5 billion towards reaching our goal of net zero operations.

- Apart from progressive fleet decarbonization, we have introduced an industry-leading EV purchase policy for all our employees to incentivize electric vehicle purchase, which reflects our 360-degree approach to 'greening' our impact

- The introduction of our carbon-light product lines, kicked off by Restora and Restora Ultra aluminium options, gives a preview of the many more innovative green products being developed, including green copper.

- Nearly 67% of our plants are in water-stressed areas. In FY23, Vedanta recycled 77 billion litres of water, equivalent to the annual water consumption of nearly 3 million people in rural India. Four of our business units are already water positive. We also reduced our freshwater consumption by 11.32% from the baseline FY 2021. Several alternative water sources like municipal wastewater, saline water and rainwater harvesting are being harnessed.

Under our "Transforming for Good" vision we also have several key social goals covering diversity and inclusion, education, primary healthcare, sanitation and hygiene, livelihood creation and wildlife conservation and animal welfare. Along with charting a greener way forward for our nation's growth, we are also helping to realize India's social priorities of creating a healthier and more equitable society.

Creating greater equality, building a better workforce

We have made great progress in promoting women's representation in leadership positions, including CXO positions. This is a welcome move on several counts – not only does it benefit women and give them greater empowerment, the organization benefits immensely too as these women bring in richness of perspectives and novel viewpoints.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

They also act as very powerful role models and drive corporate ESG efforts with a lot of enthusiasm. It has been proven that organisations with more gender diverse staff, more effectively promote sustainable practices.

The natural resources and mining industry has historically been a male-dominated area. Breaking this trend, in the last one year, women in STEM roles have gone up from 13% to 16% within our company. Our subsidiary HZL now boasts of India's first female underground mining engineers. To assist women in getting better aligned with the industry's role requirements, we have been providing 2X training to women employees compared to their male counterparts in FY2023. We are thrilled to be setting such positive precedents that contribute to greater gender parity at the workplace. As a part of promoting a diverse and inclusive workplace, we are also consciously encouraging regional diversity and are trying to recruit talent from different geographic areas. Establishing an LGBTQ+friendly atmosphere is another priority. In support of our diversity and inclusion emphasis, we are also communicating with our employees through open platforms that promote honest exchange of viewpoints and enable us to better understand their problems.

Maintaining a safe work environment is a top priority for our company to ensure workforce well-being and optimal productivity. This commitment is fundamental for our organizational growth. In FY 2023, the company reported 13 fatal incidents. In response, we have greatly strengthened our Critical Risk Management programme for

prioritizing critical risks and are overhauling our safety standards. We already have an elaborate Safety Monitoring and Management framework in place with 17 safety performance standards and 20 health and safety technical and management standards. We are meticulously evaluating the weaknesses in the system to prevent loss of lives at any cost and create a fool-proof system.

Spreading the power of good through AAF

Our diverse corporate social responsibility (CSR) initiatives across the areas of child nutrition, gender equality, livelihood generation and animal welfare are offered under the Anil Agarwal Foundation (AAF). We have invested approximately USD 240 million in socio-economic development projects across India, and this year we have successfully improved the lives of around ~42 million individuals across 1300 villages in the country. Furthermore, AAF has committed to contributing USD 600 million over the next five years to further social impact endeavours. Our flagship initiative Nand Ghar uses the pre-existing government network of anganwadi or childcare centres and we have successfully modernized more than 4,500 anganwadis nationwide. This network is available even in the remotest parts of India, and the modern anganwadis offer 24×7 solar electricity, clean and hygienic toilets, and water purifiers. E-learning-based pre-school education, comprehensive nutrition programmes and healthcare and hygiene support, is being provided through these centres, along with livelihood support for women. I am happy to report that this year, as a result of such efforts, we have made a positive difference in the lives of 44 million community members in India and our countries of operations.

The significance of animal welfare and conservation within CSR initiatives is often overlooked and deserves more attention. It is crucial to embrace the "One Health" approach, which emphasizes the interconnectedness of people, animals, plants, and

such awareness can help to reduce animal-borne infections and diseases while recognizing the importance of animal well-being. Last year, we have also launched a vulture recovery programme at HZL aimed at conservation of this critical scavenging species.

We acknowledge the significance of ESG and CSR considerations not only as a moral obligation but also as a vital common ground that can enable the long-term sustainability of our business. We actively engage with our various stakeholders, such as regulators, investors, NGOs, and local communities to inform our view. This helps us effectively deliver on our environmental stewardship, social progress, and good governance goals. I encourage all our employees, partners, and stakeholders to join us in accepting our shared responsibilities so that we can ensure that our mining operations make a positive contribution to society while minimizing any adverse impacts.

44
million community members in India and our countries of operations

16%
women in STEM roles (up from 13%)

Invested approximately
USD 240 million
in socio-economic development projects across India

Message from the ESG Committee Chairperson

> **Under our "Transforming for Good" vision, we work across the three pillars of Communities, Planet and The Workplace, and we have aligned nine discrete organisational aims under these pillars.**

U.K. Sinha
Non-Executive Independent Director
Chairperson of ESG Committee

Dear Stakeholders,

At Vedanta, we strive to establish ourselves as a sustainability leader in the natural resources sector while we continue to create long-term value for our stakeholders. Given the dynamic shift in customer requirements, it is imperative that we stay ahead of the curve while also instituting the change processes to achieve a future that integrates sustainability into all our practices. This means reimagining established ways of working – right from how we extract resources to how we engage with communities and our employees.

Under our "Transforming for Good" vision, we work across the three pillars of Communities, Planet and The Workplace, and we have aligned nine discrete organisational aims under these pillars. The articulation of these aims has helped to give definite shape to our sustainability efforts, and we use them as a base for formulating micro targets, designing appropriate interventions and leveraging interlinkages to achieve holistic outcomes.

With our purpose and values firmly in mind, we have made good progress in FY 2023 against our three strategic pillars, and I am delighted to present some of the major achievements of the year.

These include:

- The introduction of our eco-friendly aluminium product line,
- Successful implementation of electric vehicles in our underground mines and shop floors,
- Initiation of a 100% renewable energy-powered plant,

- Inclusion of members from the transgender community into our workforce,
- Submission of a pledge to plant 7 million trees, making us the first South Asian and Indian metal and mining company to do so, and
- Establishment of dedicated ESG forums across business units, which is a first for any company.

During the year, we made considerable strides towards fulfilling our responsibility as conscientious caretakers of nature's wealth through our enlightened environmental impact mitigation and renewal programmes, and our also through our social outreach initiatives. This is reflected in our report, which underscores our commitment to sustainability across all areas of our operations.

Achieving Net-Zero Carbon Emissions

We remain resolute in our efforts towards a sustainable future and will continue to take significant action to reduce our carbon footprint. With a target of achieving net-zero carbon emissions by 2050 or earlier and a 25% absolute reduction in greenhouse gas emissions by 2030, we have developed a comprehensive four-lever strategy focused on renewable energy, fuel switch, energy and process efficiency, and carbon offsets. It is an enormous undertaking, and we have laid out a phased plan against which we are making steady progress.

Some significant achievements that we have made during the year are:

- Our GHG intensity (TCO_2e/INR Mn) has reduced by nearly 30% from FY21
- RE usage has increased by four times since FY 2021 and by 14 times since FY20

Our Green Metals initiative marks our foray into building a green product lineup that can answer the world's urgent need for lowering GHG emissions in the hard-to-abate sectors. Our first Green Aluminium product "Restora" and "Restora Ultra" are both low-carbon products and offer our customers an option for meeting their own sustainability goals. During FY 2023, we have also launched a pilot project for producing copper from recycled copper, thereby further reducing our carbon footprint. We have also committed to fuel switch programmes, by using 5% biomass in our thermal power plants and launching pilot programs at multiple sites to decrease GHG intensity.

Our goal of decarbonizing 100% of our LMV fleet by 2030 and 75% of our mining fleet by 2035 is driven by the adoption of electric fleets. To achieve this, we have partnered with GEAR India to deploy numerous electric vehicles and e-forklifts across our various sites. Moving forward, we will continue to build connectivity in the renewable energy and green metals sectors as we work towards reducing our carbon footprint.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Maximizing water use efficiency

Nearly 67% of our plants are located in water-stressed areas, which underlines the need for systematic and scientific management and conservation of this precious resource. We are pleased to report that in FY 2023, we have already reduced our net freshwater consumption has decreased by more than 11.32% since FY 2021 – both of which are significant milestones on our journey towards water positivity.

An even greater accomplishment for us this year is that we have become water-positive at four of our sites, owing to the increased usage of renewable energy, which has, in turn, helped to reduce water consumption significantly. In addition, we have installed zero liquid discharge plants and sewage treatment plants at various locations to accelerate our journey towards water positivity. Currently, we recycle 31% of the water we use, but there is still a long way to go.

As an additional lever of change, we have stepped up on improving our operational efficiencies, and digitally mapping our water consumption, thereby reducing overall water consumption. The Dariba Smelting Complex is a prime example of how digital mapping is helping us identify areas where we can reduce water consumption. In this way, we can make informed decisions and prioritize actions

that will have the greatest impact on our water usage.

In line with our commitment towards becoming fully water-positive, we have collaborated with TUV-SUD to develop a roadmap for successfully achieving this goal. Through this partnership, we are confident that we will continue to make a positive impact on SDG 6.

Promoting Diversity, Inclusivity, and Gender Parity in the Workplace

Creating equal opportunities for all employees, regardless of their gender, race, or sexual orientation, is critical to building a diverse and inclusive workforce. With this goal in mind, we have initiated several significant programmes that aim to revamp the composition of our workforce and cultivate a culture of inclusiveness.

In FY 2023, our talent management programmes were led by the target of recruiting more than 50% women employees in the workforce. The drive to create a more gender-balanced workforce is taken a step farther by our V-Lead programme, which aims to identify high-performing women employees for CXO roles. Our Ambavgarh Dialogue annual programme, which grooms high-performing women employees for the next level has, in fact, earned recognition from industry associations like the Society for Human Resource Management (SHRM) and PeopleFirst.

To ensure that our efforts towards inclusivity are sustained and impactful, we have established our first Diversity and Inclusion (D&I) Council. This effort, coupled with the launch of the People Community of Practice, aims at incorporating globally benchmarked HR practices to build a more equitable workplace.

Moving Forward

Vedanta's sustainability journey has seen significant progress in establishing an ESG framework that is aligned with our long-term goals. We are pleased to inform our stakeholders that our achievements in the ESG space have also been recognised by ESG rating providers. Vedanta's performance in the DJSI rating has significantly improved this year, with our score rising from 62 to 76, across all three ESG dimensions. As a result, the Group has secured the sixth position in the global sustainability rankings for the metals and mining sector.

The efforts of our 14 Communities of Practice have been instrumental in driving our sustainability agenda forward, and we are confident that their continued efforts will help us achieve our 2030 ESG targets quicker.

The coming decade will be the most challenging one for the metals and mining industry, but we also believe more opportunities will emerge than risks, giving us greater leverage to drive long-term value.

I believe that with our substantial and comprehensive action plans already rolled out, Vedanta is well-positioned to be a leader of choice for customers, employees, business partners, and stakeholders, all working towards a sustainable future.

Our goal of decarbonizing
100%
of our LMV fleet by 2030 and 75% of our mining fleet by 2035 is driven by the adoption of electric fleets

67%
of our plants are located in water-stressed areas

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Knowing our Stakeholders

Our collaborative approach helps to build healthy stakeholder relationships and to drive business growth. Along with our stakeholders, we co-create solutions for the benefit of society and the environment. The collective capacity and experience of our stakeholders, from multiple industries, geographies, contributes towards transforming our business.

It is important for us to know how our business decisions, activities and performance are likely to affect or be of significant interest to our stakeholders. Their key insights help us navigate challenges, seek opportunities, find purpose in what we do, and lay the foundation for a more inclusive and sustainable future.

Stakeholder mapping

We distinguish between stakeholders on the basis of whether our activities directly or indirectly affect them. To map this accurately we follow the steps given below:

- List the stakeholders involved in the company's value creation process.
- Classify stakeholder groups as internal or external after proper organization-wide consultation and review.

Stakeholder Engagement

At the heart of the stakeholder engagement process lies the determining of issues that are material to our business from the environmental, social and governance perspectives. These issues also reflect the needs and concerns of our stakeholders. In 2023, a Group-wide materiality assessment exercise was carried out, along with similar exercises at three of our BUs. The broad process followed is delineated below:

- Circulation of interview guides and questionnaires among the identified groups of stakeholders.
- Arrangement of stakeholder meetings by relevant departments within Vedanta.
- Capture of the feedback given and the suggestions made

Feedback and Analysis

This is a significant step in the stakeholder engagement process to understand qualitative and quantitative inputs collected on material topics through interviews, focus group discussions, surveys and site visits.

The process includes:

- Tracking and recording (questionnaires and interviews) stakeholder's views
- Observation and analyzation of every group stakeholder's response to determine the top material issues for each group of stakeholders.
- Development of materiality matrix based on the significant material aspects determined by the responses and interactions among the stakeholders.

Stakeholders consulted to prioritize the topics based on how it impacts Vedanta

Internal Stakeholders

Employees

External Stakeholders

Customers

Suppliers

Business Partners

Investors & Lenders

Community

Regulators

NGO & Civil Society

Industry Forums

Academic Institutions

Internal Stakeholders

Senior management online interviews/survey
43

Senior management FGDs on site
94

Senior management FGDs on site
1,421

External Stakeholders

Customer survey
35

Suppliers survey
43

Business partners FGD
84

Investors / Lenders survey
7

Civil Society survey
13

CSR partners and Communities FGD
175

Regulators interview & survey
16

Industry forums survey
2

Academic Institutions survey
4

Stakeholder Engagement Mechanism

Community

How We Engage

The Company has established a comprehensive social framework as a key to engaging with local communities. The Social Performance Steering Committee (SPSC) employs a cross-functional approach to community engagement through community group meetings and village council meetings.

Community needs/social impact assessments are developed to undertake need-based community projects. We are increasing our community outreach via public hearings, grievance mechanisms, and cultural events. Anil Agarwal Foundation provides philanthropic support to such engagements.

Key Expectations

- Undertaking need-based community infrastructure projects

- Increasing the reach of community development programmes

- Provision of jobs and other means of livelihood

- Improving the grievance mechanism

Employees

How We Engage

The Company interacts through: Channels on teams, broadcasting on whatsapp, Chairman, Vice Chairman, CEO townhalls, Focussed Group Interactions as the primary mode of engaging with employees. We follow a multi-dimensional approach to career and leadership development through V-Lead and ACT-UP programmes.

Chairman's workshops, Chairman's/CEO's town hall meetings, and plant-level meetings are organized periodically to improve performance on material issues pertinent to Vedanta.

We have established an event management committee and a welfare committee to help with employee engagement initiatives through employee training, and by organising other outreach activities.

Key Expectations

- Safe Workplace

- Improved training on safety

- Increased opportunities for career growth

- Increasing the gender diversity of the workforce

Investors and Lenders

How We Engage

The Company has an active investor relations team that consistently provides public disclosures on economic, social, and environmental performance. The team provides regular updates to stakeholders through investor meetings, site visits, conferences, and quarterly result calls.

The Company organises annual general meetings to engage with our key financial audience that is, shareholders, investors and lenders. To enable stakeholders to raise their concerns, a dedicated contact channel has been assigned: **ir@vedanta.co.in** and **esg@vedanta.co.in**

Key Expectations

- Consistent disclosure of economic, social, and environmental performance

NGO & Civil Society

How We Engage

The Group has implemented multi-stakeholder initiatives and partnerships with international organisations to align with the expectations of the global sustainability agenda. Any key concerns or trends from engagements with international, national, and local NGOs are reported to the relevant community of practice. Conferences and workshops are conducted as needed.

Key Expectations

- Expectations of being aligned with the global sustainability agenda

- Compliance with Human Rights

Industry Forums, Suppliers, Customers, Business Partners)

How We Engage

Vedanta ensures the consistent implementation of its code of business conduct by having company personnel conduct in-person visits to customers, suppliers, and vendors. In order to maintain contractual integrity, a vendor scorecard is meticulously maintained. The company's commitment to enhancing the overall customer experience is evident through the regular administration of customer satisfaction surveys and meetings, along with prompt actions taken to address any gaps that are identified.

Key Expectations

- Consistent implementation of the code of business conduct and ethics

- Ensuring contractual integrity, data privacy

Regulators

How We Engage

Our engagement with regulatory bodies includes participation in government consultation programmes. The Vedanta Group engages with national, state, and regional government bodies at the business and operational levels both directly and through industrial associations.

Key Expectations

- Compliance with laws

- Contributing towards the economic development of the nation

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Materiality

Approach to Materiality Assessment

Issues identified as being of material importance for Vedanta help to determine the strategy and actions around our economic, environmental, and social impact, and significantly influence our future roadmap.

In FY 2023, we undertook a thorough evaluation of all material topics that carry significance for our internal and external stakeholders.

This assessment has played a crucial role in appraising the risks and opportunities we face, and has contributed towards the refinement of our ESG strategy. The comprehensive assessment follows the principles of double materiality which involves assessing the impact of Vedanta on stakeholders based on the GRI (Global Reporting Initiative) Universal Standards, as well as evaluating the impact of ESG topics on Vedanta.

This two-pillar approach considers both our organization's impact on the economy, environment, and society, and the reciprocal impact of society and the environment on our organization. Vedanta conducts materiality assessment every two years, and reviews the material issues annually.

Furthermore, we maintain a continuous and robust engagement with our stakeholders, recognizing their substantial influence on our business. Regular interactions with them enable us to understand their perspectives and promptly respond to evolving market dynamics, ensuring we stay ahead of potential risks.

MATERIALITY FRAMEWORK

In determining our material topics, we have considered the following frameworks:

SASB STANDARDS
Now part of IFRS Foundation

Sustainability Accounting Standards Board (SASB)

MSCI
MSCI ESG

S&P Global
S&P Global ESG Materiality

ICMM
International Council on Mining and Metals (ICMM) Principles

Step 1: Identifying List of Material Topics

The process of identifying industry material topics involved multiple steps. Initially, material topics were identified based on recommendations from four industry-specific standards i.e. SASB, MSCI, S&P Global and ICMM. These standards served as references for determining the relevance of various topics.

Next, a peer review was conducted to review sustainability topics that were considered material by peer companies of Vedanta. Finally, a mutually exclusive and cumulatively exhaustive (MECE) list of 26 material topics were prepared to streamline and prioritize the material topics for Vedanta.

Step 2: Gathering Stakeholder Inputs

Total of 26 topics were shortlisted as being material for Vedanta, which then had to be prioritized. To help in this prioritization, a diverse range of internal and external stakeholders were consulted, and their inputs were reviewed from the perspective of impact on them, as well as, on the organization. As many as 1,933 stakeholders were engaged in the process, and the interaction methods included interviews, focus group discussions, surveys, and site visits.

These interactions provided both qualitative and quantitative inputs, allowing us to understand the stakeholders' perceptions regarding Vedanta's impact on the environment and society, in relation with to their own interests and concerns.

Step 3: Risk and Opportunity Assessment

An in-depth analysis of identified material topics was conducted, to determine the potential impact of these topics on our ability to execute the 'Transforming for Good' strategy with a specific focus on topics that could have significant financial implications.

These topics were then assessed against the risk threshold as defined in Vedanta's Enterprise Risk Management matrix. The assessment allowed us to evaluate the level of risk associated with each topic and develop appropriate mitigation strategies.

Step 4: Priority and Impact Assessment

To prioritize material issues, we analysed the responses from various stakeholders and conducted a risk assessment. A scoring methodology was employed to evaluate the severity and likelihood of each issue. Based on this analysis, the material issues were classified as high, medium and low priority.

Our prioritization approach considers both financial materiality, focusing on topics that have a high influence on the enterprise value, and impact materiality, considering issues with a significant impact on stakeholders, the economy, environment, and people. By considering both financial and non-financial impacts, we aim to bring a comprehensive and balanced approach to evaluating the significance of these issues, as well as the associated risks and opportunities.

Step 5: Preparation of Materiality Matrix

The stakeholder responses were carefully analysed and mapped into a materiality matrix, deploying two axes to evaluate the material issues, with the X-axis depicting the impact on Vedanta's business, and the Y-axis depicting impact on stakeholders.

On the X-axis, impact on business has been projected and assigned varying weightages based on their relative influence. This process helped determine the high-priority material issues and their impact on Vedanta's operations.

On the Y-axis, the business prioritization was reviewed, considering the nine aims adopted by Vedanta as part of our strategy, ESG-related risks within Vedanta's Enterprise Risk Management (ERM) framework, and the boundary of these material topics across the value chain.

Based on their impact, the material issues were classified as high, medium, or low priority, each requiring a distinct management approach. This classification allows for focused attention and tailored strategies to address the identified material issues effectively.

Step 6: Finalisation of Materiality Matrix

In the validation phase, the results of the materiality assessment underwent a thorough review by Vedanta's senior management team and was signed off by the ESG ManCom chaired by the Chief Executive Officer (CEO). This critical step ensures the accuracy and completeness of the materiality matrix.

During the review process, the senior management team carefully examined the findings and insights derived from the assessment. At Vedanta, ESG ManCom reviews and approves the material issues in fortnightly meetings. These issues are then shared with all relevant functions and teams to plan their execution. As part of our annual assurance process, a third party validates our materiality approach and assesses its relevance in the context of our business and industry sector.
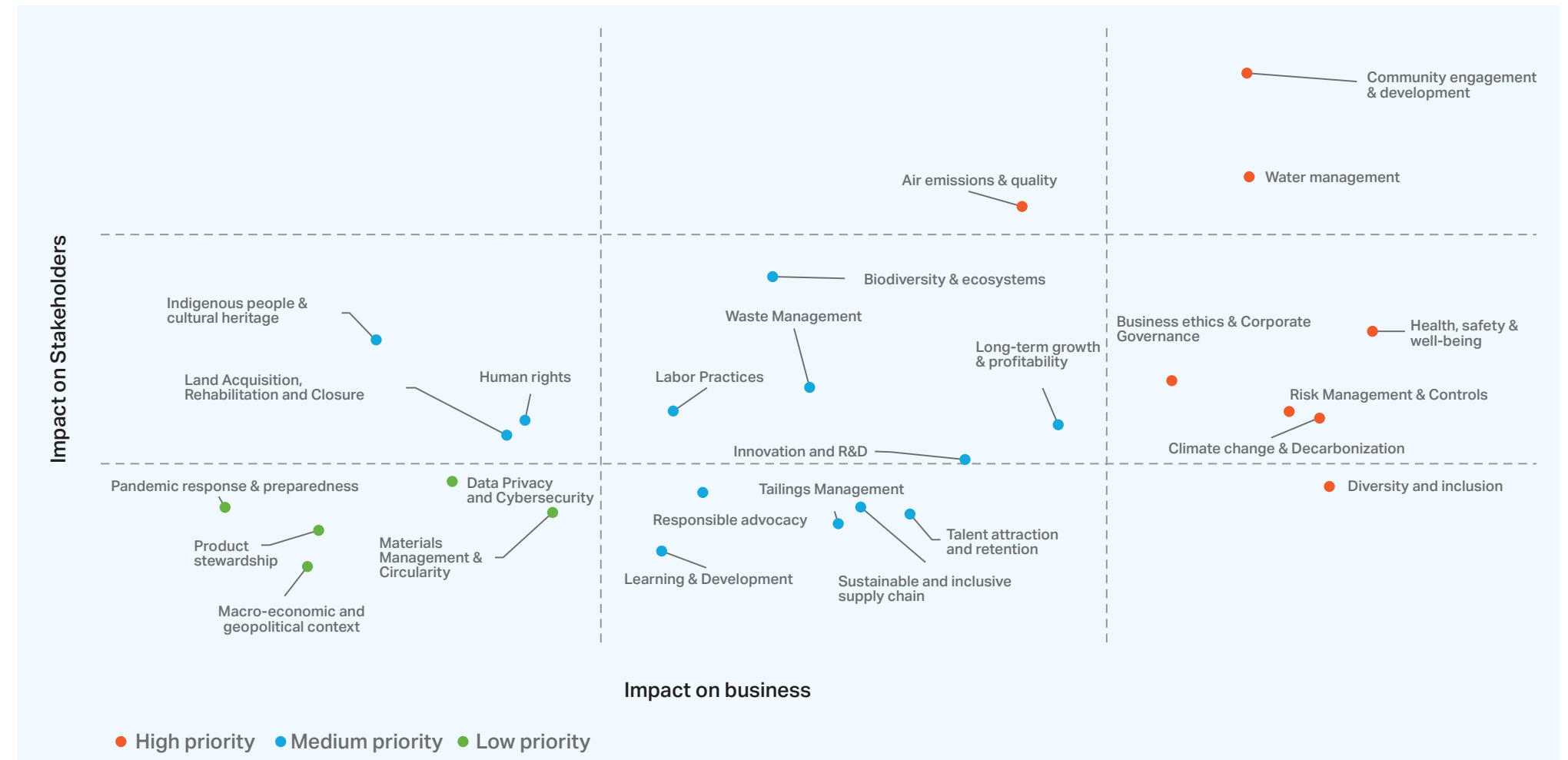
Sustainable and Inclusive Supply Chain, Tailings Management have shifted from issues of high material impact to medium impact
Indigenous People & Cultural Heritage have shifted from issues of high material impact to low impact

Mapping Materiality matters to ESG Aims

Transforming Communities

Aim 1
- Indigenous Peoples and Cultural Heritage
- Land Acquisition, Rehabilitation and Closure

Aim 2
- Community Engagement and Development

Aim 3
- Community Engagement and Development

Transforming the Planet

Aim 4
- Climate Change and Decarbonization

Aim 5
- Water Management

Aim 6
- Waste Management
- Biodiversity and Ecosystems
- Air Emissions and Quality
- Tailings Management

Transforming the Workplace

Aim 7
- Health, Safety and Well-being

Aim 8
- Diversity and Inclusion
- Talent Attraction and Retention
- Learning and Development
- Labor Practices

Aim 9
- Business Ethics and Corporate Governance
- Risk Management and Controls

■ High Impact Topics for our External stakeholders   ■ Key Material Topics

Mapping Materiality Matters with Vedanta's Enterprise Risk Framework

To ensure harmony and synergy with the overall organizational direction, an evaluation was conducted to verify that all ESG-related risks identified as principal and emerging risks within the risk management framework are in alignment with the high priority material topics. This evaluation aimed to confirm that the identified risks and material topics are in alignment, promoting a comprehensive and integrated approach to risk management and sustainability.

Additionally, this exercise allowed us to evaluate emerging risks, megatrends, and regulations in terms of their significant impact on our business model and key value drivers, including revenue growth, margins, and capital requirements. These topics were assessed against Vedanta's risk tolerance, as defined in our Enterprise Risk Management (ERM) framework. For instance, climate change and decarbonisation are both high-priority material topics and a "principal risk" in our ERM framework, with potential wide-ranging impacts on our business.

By integrating materiality assessment with ERM, we are able to align the sustainability strategy with the risk management framework and address our ESG impact more effectively. This integration informs our internal decision-making process, by taking into account a wider range of metrics such as changes to profitability, liquidity, and capital provisioning. Governance of the materiality assessment ensures that this process is well-regulated and structured.

Material Issue	Business Case	Impact (Cost, Risk, Revenue)	Business Strategies
Climate Change & Decarbonization	Transitioning to a lower-carbon economy requires extensive changes in policies, regulations, technologies, and markets to address mitigation and adaptation requirements related to climate change. Depending on these changes, transition risks may pose varying levels of financial and reputational risks to the Company. Increasing regulatory change and investor pressures aimed at limiting or reducing GHG emissions are likely to impact the Company's operations due to increased costs for fossil fuels, levies for emissions exceeding permitted levels, and increased administrative costs for monitoring and reporting. For instance, the Carbon Border Adjustment Mechanism will be applicable for our Aluminium as well as Iron & Steel business. The Company would need to account for the carbon content of its products and potentially pay additional taxes for imports into countries implementing CBAM. Also, CBAM could potentially increase the Company's risk exposure due to decreased market access.	Risk	Our climate change strategy and roadmap prioritize net-zero emissions by aligning our financial capital allocation framework and social values with the goals of the Paris Agreement. The roadmap consists of four stages: a) From 2021 to 2025, we aim to reduce GHG intensity (TCO_2e/MT) of our metal businesses by 20% compared to the FY 2021 baseline, with cumulative progress assessed in FY 2025. b) Between 2021 and 2030, our focus is on creating renewable energy capacity. By FY 2030, we aim to establish enough capacity to provide 2.5 GW of round-the-clock (RTC) renewable power for our facilities. c) From 2026 to 2030, we expect to achieve a 25% reduction in absolute GHG emissions compared to FY 2021. This reduction will be measured against the baseline as we actively pursue decarbonization. d) Beyond 2030, we will intensify the deployment of emerging technologies and expand our renewable energy capacities. These efforts will propel us towards becoming a net-zero carbon business by FY 2050.
Workplace Health & Safety	Maintaining a safe work environment is a top priority for our company. Unsafe conditions lead to absences, loss of productive hours as well risk of reputation loss. To ensure the well-being of our workforce, we prioritize creating a safe workplace that promotes their health and safeguards their overall well-being. This commitment is fundamental for our organizational growth and the positive impact we can make on society. In FY 2023, the company reported 13 fatal incidents. By prioritizing health and safety, we build trust with our employees and other stakeholders. A strong health and safety record demonstrates our responsibility as an employer and showcases our caring nature. This enhances our reputation in the industry and positions us as an employer of choice. Consequently, we can attract and retain talented employees who value their well-being.	Risk	We have implemented processes and checks to identify and mitigate hazards. Our employees undergo rigorous training to understand the risks associated with their work. The Safety Community of Practice oversees the implementation of these measures throughout our organization. Our safety framework is comprehensive and includes 17 safety performance standards and 20 health and safety technical and management standards. To validate our commitment, all our operational facilities and sites have obtained prestigious certifications such as ISO 45001 and OHSAS 18001. We have also initiated a Critical Risk Management program aimed at identifying and prioritizing critical risks, allowing us to focus our efforts on effectively managing and mitigating them. Furthermore, we are currently in the process of overhauling our safety standards under the VSF initiative, ensuring continuous improvement and alignment with the best practices in the industry.
Water Management	Water is a critical input for Vedanta's operations and has the potential to disrupt operations, to impact productivity of staff as well as to impact revenues and logistics. With operations in both water-stressed areas and areas prone to flooding, change in water availability is a material risk for businesses like BALCO, HZL and Cairn Oil and Gas. There could be water-related stakeholder conflicts, due to which, availability and accessibility of the water with required quality for our operations and stakeholders will be impacted. These impacts can result in: a) Decrease in the capacity utilisation of operation resulting in productivity losses b) Legal conflicts resulting in loss of credibility and reputation of the Company. c) Higher financial burdens and increase in specific water cost of product due to high degree of pre-treatment if quality is the issue and handling, storage issues if availability is the cause of the conflict.	Risk	Vedanta has comprehensive water management strategy in place at operations to ensure that fair allocation of water is maintained for key municipal, agricultural and industrial users in the regions where the Company operate in. Vedanta has undertaken significant initiatives to progress towards becoming water positive: a) Site-specific roadmaps are being developed, which involve identifying projects both within and outside the Company's premises to improve the Company's water positivity ratio. Four sites have attained water-positive status (HZL, IOB, Cairn India and BMM). b) To reduce freshwater usage, the Company is banking on technology deployment across our sites for process improvement and recycling of wastewater. c) As part of their integrated watershed management initiatives (IWMI), the Company is creating rainwater harvesting and groundwater recharging projects for communities to improve freshwater availability.

Progress against our Goals

Mapping Materiality Matters to Stakeholder Impacts and Expectations

Material Topics

Water Management

Page Number: 63

- -

Impact, Risk, Opportunity

External Stakeholder Impact on Community, Customers

Interest from: Senior Management, Employees, Business Partners, Community, Customers, Industry Forums, Regulators

Impact Areas: Society

- -

Impact

Negative

Output Metric: Water withdrawn(cu.m) and water replenished (cu.m)

Impact Valuation: Net Impact Ratio

Impact metric: Ratio of Water replenishment to water withdrawn

Performance: Water positivity ratio: 0.62

Material Topics

Waste Management

Page Number: 68

- -

Impact, Risk, Opportunity

External Stakeholder Impact on Community

Interest from: Employees, Business Partners, Community, Customers, Industry Forums, Regulators

Impact Areas: Society & Environment

- -

Impact

Positive

Output Metric: Waste diverted from landfill 29,930,371 (in metric tonnes)

Impact Valuation: Environmental Value Lost

Impact Metric: Avoidance of productive land used for landfill in Ha

Performance:173.17 Ha avoided in FY 2023

As part of our ongoing commitment to 'Transforming for Good' by transforming the planet, communities, and workplace, we have developed an ESG scorecard to track our progress toward our aims and targets. This helps us monitor our performance and take corrective action wherever necessary.

Transforming Communities

Aim 1

Keeping community welfare at the core of business decisions

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Impact Management	**FY 2025:** Zero social incidents category 4 and above	Zero Category 4 social incidents Four Category 1 social incidents	
Transparency & Trust	**FY 2025:** Become signatories and participants in VPSHR	Security Community of Practice formed and initial work has started	Community Engagement and Development
	FY 2025: Annual human rights assessment across all the businesses	100% businesses assessed (desktop) for human rights risks. External expert agency contracted to conduct human rights assessment across all businesses and develop a roadmap to close gaps. Work to be conducted in FY24.	

Aim 2

Empowering over 2.5 million families with enhanced skillsets

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Skilling (Number of families to be impacted through skill development and training)	**FY 2025:** 1.5 Million families **FY 2030:** 2.5 million families	0.6 million families skilled	Community Engagement and Development

Aim 3

Uplifting over 100 million women and children through Education, Nutrition, Healthcare, and Welfare

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Nand Ghar (Number of Nand Ghars to be completed)	**FY 2025:** 19,000 Nand Ghars **FY 2030:** 29,000 Nand Ghars	4,533+ Nand Ghars built till 31st March 2023	
Education, Nutrition, Healthcare and Welfare (Number of women and children to be uplifted through Nand Ghar initiatives)	**FY 2030:** 48 million **Envisioned:** 100 million for long term	11.74 million women and children uplifted	Community Engagement and Development

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Transforming the Planet

Aim 4

Net-carbon neutrality by 2050 or sooner

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Absolute GHG emissions (% reduction from FY 2021 baseline)	**FY 2030:** 25% reduction	9% higher than FY 2021 baseline	
GHG Emissions Intensity (% reduction from FY 2021 baseline)	**FY 2025:** 20% reduction	6.25 TCO_2e/Tonne of Metal vs 6.45 TCO_2e for FY 2021 (base year)	
Renewable Energy (use RE RTC or equivalent)	**FY 2025:** 500 MW of RE RTC or equivalent **FY 2030:** 2.5 GW of RE RTC or equivalent	230 MW RTC equivalent used	Climate Change and Decarbonisation
LMV Decarbonisation (% LMVs)	**FY 2025:** 50% LMVs **FY 2030:** 100% LMVs	35 LMV's deployed across BUs EV Purchase Policy introduced for all employees - 48 EVs purchased by employees across all BUs	
Capital Allocation for transition to net zero	**FY 2030:** US$ 5 billion	US$ 66.7 million spent on environment-related capital expenses	
Hydrogen as fuel	**FY 2030:** Commitment to accelerate the adoption of hydrogen as a fuel and seek to diversify into H_2 fuel or related businesses	To be undertaken	

Aim 5

Achieving net water positivity by 2030

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Net water positivity	**FY 2030:** Net water positivity	Water positivity ratio: 0.62	
Freshwater consumption (% reduction from FY 2021 baseline)	**FY 2025:** 15% reduction	11.32% reduction from FY21 baseline	Water Management
Water-related incidents	**FY 2030:** Zero category 4 and 5 incidents related to water	Zero category 4 and 5 incidents related to water in FY23	
Water recycling (%)	**FY 2025:** 33%	29.3%	

Transforming the Workplace

Aim 6

Innovations for a greener business model

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Fly ash (utilisation)	**FY 2025:** Sustain 100% utilisation	204%	Waste Management
Legacy fly ash	**FY 2030:** Zero legacy ash	44.42 million tonnes	
Waste Utilisation (High volume, low toxicity)	**FY 2025:** 100%	164%	
Tailings dam audit and findings closure	**FY 2025:** 100% facilities	1. Site assessment completed. 2. 60% closure of findings of stage 1 study	Tailings Management
Biodiversity Risk	**FY 2025:** 100% locations reviewed for biodiversity risk	Baseline studies to determine biodiversity risk completed	Biodiversity and Ecosystems
Biodiversity	**FY 2025:** Determine the feasibility of commitment to No-Net-Loss or Net-Positive-Impact (NNL/NPI) targets **FY 2030:** Implement roadmap to achieve No-Net-Loss or Net-Positive-Impact	Target related to NNL/NPI to be set by FY24	

Aim 7

Prioritising safety and health of all employees

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Fatalities (No.)	**FY 2025:** Zero	13 (12 contract workers, 1 full-time employee)	
Lost Time Injury Frequency Rate (LTIFR)	**FY 2025:** 10% reduction (year-on-year)	0.52 (10.3% YoY reduction)	
Total Recordable Injury Frequency Rate (TRIFR)	**FY 2025:** 0.98 TRIFR per million man hours (30% reduction from FY 2021 baseline) **FY 2030:** 0.8 TRIFR per million man hours	1.20	
Occupational Health Management Systems	**FY 2025:** Health performance standards implemented and part of VSAP	In progress	Health, Safety and Well-being
Exposure Monitoring	**FY 2025:** Employee and community exposure monitoring to be completed	To be undertaken	
Exposure prevention	**FY 2030:** No employee exposure to red zone areas	In progress	
Employee well-being	**FY 2025:** Mental health programme in place for all employees	100% completed	
	FY 2025: 100% of eligible employees to undergo periodic medical examinations	100% completed	

Aim 8

Promote gender parity, diversity, and inclusivity

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Gender diversity (% women in the FTE workforce)	**FY 2030:** 20% women	14%	
Gender diversity (% women in leadership roles in FTE workforce)	**FY 2030:** 40% women	9.1%	
Gender diversity (% women in decision-making bodies in FTE workforce)	**FY 2030:** 30% women	28.34%	Diversity and inclusion
Gender diversity (% women in technical leader/shop floor roles in FTE workforce)	**FY 2030:** 10% women	13%	

Aim 9

Adhere to global business standards of corporate governance

Key Performance Indicators	Sustainability Goals	Performance in FY 2023	Material Matters
Safety Programme for Business Partners	**FY 2025:** Rubaru is to be introduced at all Business Units across Vedanta	Critical risk management programme rolled out for all employees and business partners	
Supply Chain GHG transition	**FY 2025:** Work with long-term, tier 1 suppliers to submit their GHG reduction strategies **FY 2030:** Align GHG reduction strategies with our long-term tier-1 suppliers	Commercial CoP constituted to address supplier chain related ESG issues (including GHG emissions)	Sustainable and Inclusive Supply Chain
Training on Code of Conduct	**FY 2025:** Continue to cover 100% of employees	100% completed	
% Independent Directors on Board	**FY 2025:** 50% Independent Directors on Board as per SEBI requirements	50%	Business Ethics and Corporate Governance
% gender diversity on the Board	**FY 2025:** 25%	25%	

Sustainable Mining

As a globally recognized and diversified mining business, our primary focus lies in ensuring the implementation of sustainable mining practices throughout all our operations across the world. We firmly believe in the responsible utilization of natural resources and the preservation of the environment for future generations.

To demonstrate our dedication to environmental stewardship, we have taken significant steps to align our operations with internationally accepted standards. This involves a comprehensive approach that integrates environmental considerations into our everyday operations. Through ongoing evaluation, monitoring, and collaboration with stakeholders, we strive to continuously enhance our environmental management practices. By doing so, we aim to minimize the potential environmental impacts of our mining operations, preserve biodiversity, and contribute to the long-term well-being of the communities and ecosystems in which we operate.

Strategy: Our Sustainability Implementation Roadmap offers comprehensive guidance to mine teams, assisting them in aligning their sustainability goals with corporate objectives, implementing sustainability interventions, reporting performance and financial elements such as reduced cost and increased profitability. It also provides direction on integrating mine-specific factors like lifecycle stage, mineral type, extraction methodology, and land ownership into goal-setting and intervention design, enabling each mine to prioritize issues and tailor solutions to its specific requirements

Exploration
- Conducting ESIA studies
- Develop mine closure plan

Development
- Incorporating local community needs, environmental and social risk mitigation actions into the mine plan

Operational
- Develop annual and long term targets
- Design interventions related to energy waste, climate, biodiversity, human rights, etc.
- Develop a plan to execute different initiatives for stakeholder engagement
- Review and report performance

Site Closure
- Our site closure plan is centered around empowering the local community through training and collaboration with external organizations, fostering local development opportunities

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Our closure plans are carefully developed, considering the following aspects:

- A comprehensive understanding of the operating environment, encompassing socio-economic, cultural, and environmental factors, as well as legal and regulatory requirements for closure.

- Evaluation of various closure options, considering criteria such as environmental impact, reputational risk, socio-economic factors, and community considerations, with a clear rationale for selecting the preferred option.

- Assessment of the primary risks and opportunities associated with the chosen closure option.

- Extensive consultation process involving internal and external stakeholders, recognizing the importance of community involvement in plan development. This ensures that their expectations are understood, managed, and that they are informed about any residual impacts resulting from decommissioning and post-closure activities.

- Our commitment to mine closure including social closure initiates even before the commencement of mining operations and remains an ongoing process throughout the entire life cycle of the mine. Our closure plans are built upon the technical standard for site closure, which encompass prioritizing safety and stability, fostering socio-economic transition, and contributing to risk mitigation efforts.

Adequate financial resources are allocated to cover closure and rehabilitation activities, ensuring the successful execution of the closure plan, regardless of whether it occurs as planned or prematurely. We continuously update the closure plans and associated cost estimates to adapt to evolving circumstances in mine development, operational planning, environmental and social conditions, stakeholder expectations, and advancements in techniques and technologies. To enhance transparency and accountability, we provide regular reporting on the implementation of our closure plan and site rehabilitation. Progress against the closure plan is communicated openly and regularly to all internal stakeholders and relevant external parties.

Furthermore, all subsidiary companies and operations under Vedanta Ltd. adhere to the stipulations concerning decommissioning and site closure procedures. They ensure that the mechanisms employed for decommissioning and site closure align with international standards, such as the IFC performance standards, IFC EHS Guidelines, ICMM principles, as well as impact assessment and consultation processes where applicable.

Vedanta has successfully completed the closure of a single site: Lisheen, in Ireland back in 2015. There have been no recent mine closures for Vedanta.

Transforming Communities

Sustainable growth means finding an equilibrium between our progress and the surrounding communities. At Vedanta, this is the simple truth that we live and work by.

As one of the world's largest producers of key metals and oil and gas, we provide the resources on which nations build their present and conceive their futures. As an agency of growth, we help to stretch the boundaries of human potential. Equally, we carry the responsibility of conducting our business in a sustainable and equitable way.

We deeply value the social license to operate that communities entrust in us. We honour and maintain this trust through our commitment to causing no harm to communities, by sharing the benefits of our business and growth, and through open communication, empathetic engagement and proactive conflict resolution.

Our conscious approach is to make better the lives of those we touch, for true progress happens when all move forward. We have set ourselves the goal of eempowering more than 2.5 million families with augmented skillsets and uplifting over 100 million women and children through education, nutrition and healthcare. We co-create progress, we build trust, and we give back with responsibility.

In this section

Aim 1
- Keep community welfare at the core of business decisions

Aim 2
- Empowering over 2.5 million families with enhanced skillsets

Aim 3
- Uplifting over 100 million women and children through Education, Nutrition, Healthcare and Welfare
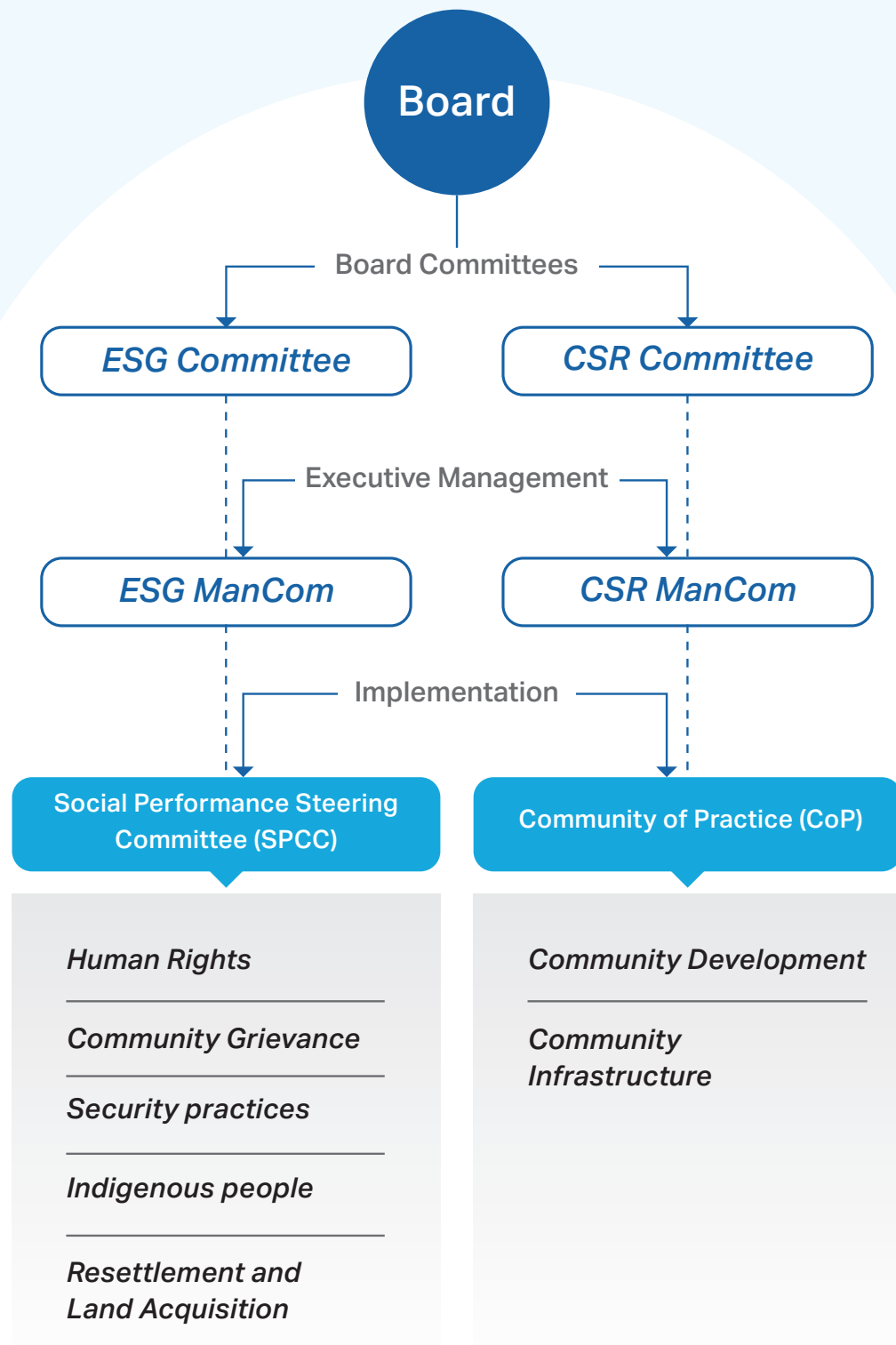
KEY HIGHLIGHTS

Local procurement improved to
40%

4,533
Nand Ghars completed

Launch of Nutribar: A millet-based supplement to eliminate malnourishment in six months

Board

Board Committees

ESG Committee | *CSR Committee*

Executive Management

ESG ManCom | *CSR ManCom*

Implementation

Social Performance Steering Committee (SPCC) | Community of Practice (CoP)

Human Rights

Community Grievance

Security practices

Indigenous people

Resettlement and Land Acquisition

Community Development

Community Infrastructure

SDG

2 ZERO HUNGER

4 QUALITY EDUCATION

8 DECENT WORK AND ECONOMIC GROWTH

POLICIES
Social Performance, Human Rights, CSR, Indigenous Peoples

STAKEHOLDERS IMPACTED
Local Communities, Vendors/Suppliers/Business Partners

TARGET

Aim 1

Zero social incidents category 4 and above | Signatories and participants on VPSHR | Annual human rights assessment across all the businesses

Aim 2

Skilling (Families impacted through skill development and training) | **1.5 million** families by FY 2025 | **2.5 million** families by FY 2030

Aim 3

Uplifting over **100 million** women and children through Education, Nutrition, Healthcare and Welfare | **29,000** Nand Ghars to be completed by FY 2025

Aim 1

Keeping community welfare at the core of business decisions

Key Material Issues

Community Engagement & Development Human Rights

8 DECENT WORK AND ECONOMIC GROWTH

Mining is a high-stakes endeavour, involving heavy investment, long operating periods, changes to habitats and close dependence on local populations. The social license to operate - represented by the surrounding communities' approval and cooperation in the carrying out of mining activities, is thus a crucial part of our business, and vital for carrying on operations.

Driving accountability through top-down ownership and effective implementation

We have established a three-tier system for managing our community relations and these exist at every individual site. The ownership for smooth conduct of community relations lies at the BU CEO-level and it flows down to the site-level staff for effective implementation.

A cross-functional "Social Performance Steering Committee" (SPSC), chaired by the BU CEO or site-head, has been established at all our sites to ensure that site management is fully aware of community expectations and

concerns, and can respond in a coordinated manner to build community trust. SPSC consists of representatives from functions that include: External Affairs/Public Relations, Operations, Security, CSR, Human Resources, HSE, Finance, and Corporate Communications.

The SPSCs help ensure:

i. Social incidents are investigated, and that the resolution of grievances happen in a timely manner.

ii. Individual sites take proactive or remedial actions on grievances raised by the community.

iii. Strategies are in place to ensure local procurement and local employment.

iv. That a coordinated stakeholder engagement strategy is in place that involves relevant internal teams like CSR, External Affairs, and Security, among others

We have a dedicated social performance management team on-site and an established grievance redressal framework for handling our community relations effectively.

Implementing social performance management onsite
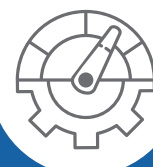
Social Performance Manager (SPM)

- Present at each site
- Ensures implementation of social performance principles on-site
- Cordinates the community-company interaction and anchors initiatives

Community Liaison Officer (CLO)

- Supports the SPM
- Act as a liaison between company and community
- Maintains regular communication, addresses community concerns through prompt interventions

Grievance mechanism cells

- Works through well-defined procedures to address community grievances transparently and promptly

Managing community relations through consultation framework

We give shape to the three pronged strategy of No Harm to Communities, Building Trust and Benefit Sharing by actively engage with our host communities throughout the lifecycle of our projects, from planning to site closure and beyond. Our approach is to co-create positive alternatives so that livelihoods and living conditions improve over time, and communities become economically independent.

By seeking community input and implementing targeted investments, we aim to foster positive relationships, address concerns, and contribute to sustainable development.

Our strategy around building and maintaining 'Social license to Operate' rests on these foundational elements

Building trust
- Open and consistent communication
- Stakeholder engagement
- Grievance management

No harm to communities
- Health, Safety, Environmental impacts
- Loss of land and resettlement
- Human rights

Benefit sharing
- Local employment opportunities
- Local procurement opportunities
- Welfare and community development programmes

Localised community engagement	Collaboration with communities	Local capacity building
Identifying the affected communities	Need Assessment	Handholding & capacity building
Implmenting Stakeholder Engagement Plan	Tailored project design	Grievance Redressal
Information sharing	Optimised investment	Reporting & communications

Across all our businesses, we follow a localized community consultation and need assessment route. We actively engage in open dialogues with communities residing near our mines, facilities, and proposed projects, to understand their developmental and livelihood needs and design appropriate interventions. Such a direct engagement approach recognizes each community's unique needs and aspirations. Through this approach we empower communities, promoting local capacity-building, and ensuring that the community's needs and expectations are met.

Two-way communication mechanisms are in-built into the system whereby there is systematic capture and documentation of any questions, complaints, grievances, or incidents raised by communities. Similarly, site-level staff also file reports and community incidents and concerns are discussed in larger employee meetings. These reports undergo thorough investigations using standardized procedures, with the

findings and subsequent actions communicated back to relevant stakeholders for their input. To ensure continuity and transparency, we maintain comprehensive records of all community meetings, commitments, and significant
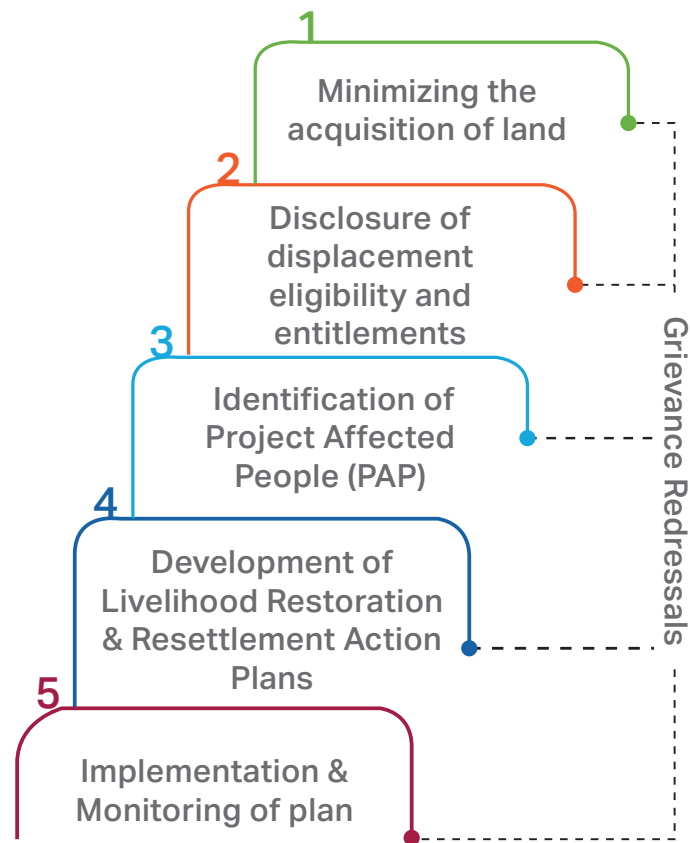
interactions, which proves crucial in the event of staff rotation or turnover. This practice safeguards the interests of both the community and the company.

52 Production Assets

2 Development Project

100% assets with community consultations

100% Development projects with community consultations

Resettlement and Land Acquisition

At the start of a new project, land acquisition and resettlement are two critical activities that require sensitive handling of community concerns and expectations. Resettlement is done in those cases where communities are in close proximity to the mines or operational sites and are at risk of adverse impact.

Vedanta follows a well-defined Technical Standard for Land and Resettlement Management and Grievance Mechanism, to facilitate cohesive handling of project-affected communities' physical and economic resettlement. Comprehensive socio-economic and environmental impact assessments are done to guide our actions and minimize biodiversity-related impacts. Throughout the course of these exercises, we actively engage with the communities to understand and manage their concerns and expectations and to be just and fair in our handling of the transition.

1 Minimizing the acquisition of land

2 Disclosure of displacement eligibility and entitlements

3 Identification of Project Affected People (PAP)

4 Development of Livelihood Restoration & Resettlement Action Plans

5 Implementation & Monitoring of plan

Grievance Redressals

We acknowledge the potential human impacts of resettlement as:

- Loss of productive land
- Loss of employment and income
- Loss of housing
- Loss of access to common resources and public services
- Social fragmentation

The human aspects of displacement involve movement from an individual's home and familiar environs to a resettlement location. This is a consideration under Vedanta's Cultural Heritage Land Acquisition and Resettlement Standards, and is used as a Guidance Note for all our operations to better understand and handle such aspects.

Restoring Lives and Communities: Vedanta's commitment to Resettlement and Rehabilitation in Lanjigarh

8 DECENT WORK AND ECONOMIC GROWTH   **17 PARTNERSHIPS FOR THE GOALS**

At our Lanjigarh facility, we have been working to resettle and rehabilitate 261 families that have been displaced due to our project-related activities. The resettlement and rehabilitation has been meticulously planned over several years, under the guidance of the Government of Odisha. New housing, employment opportunities for each household, and compensation for the land/crops affected, has been agreed on, with the whole process being carried out in accordance with our Land Acquisition & Resettlement standard. Site teams have provided alternative homestead lands, homebuilding assistance, employment opportunities, and cash payments in lieu of employment. A total investment on INR 130,720,000,000 is being made that includes payments for land purchase, Resettlement colony construction, R&R package, R&R subsistence allowance, trainee stipends, and skill-development training. Additionally, ₹45.60 million has been allocated for ongoing skill development training. These efforts demonstrate Vedanta's commitment towards providing fair compensation to those affected by our business activities, and the involvement that we have in their proper resettlement and rehabilitation so that these families and large communities are not disadvantaged. Rather they can leverage the changed circumstances to improve their lives as they gain new skills that can help them create a better future.

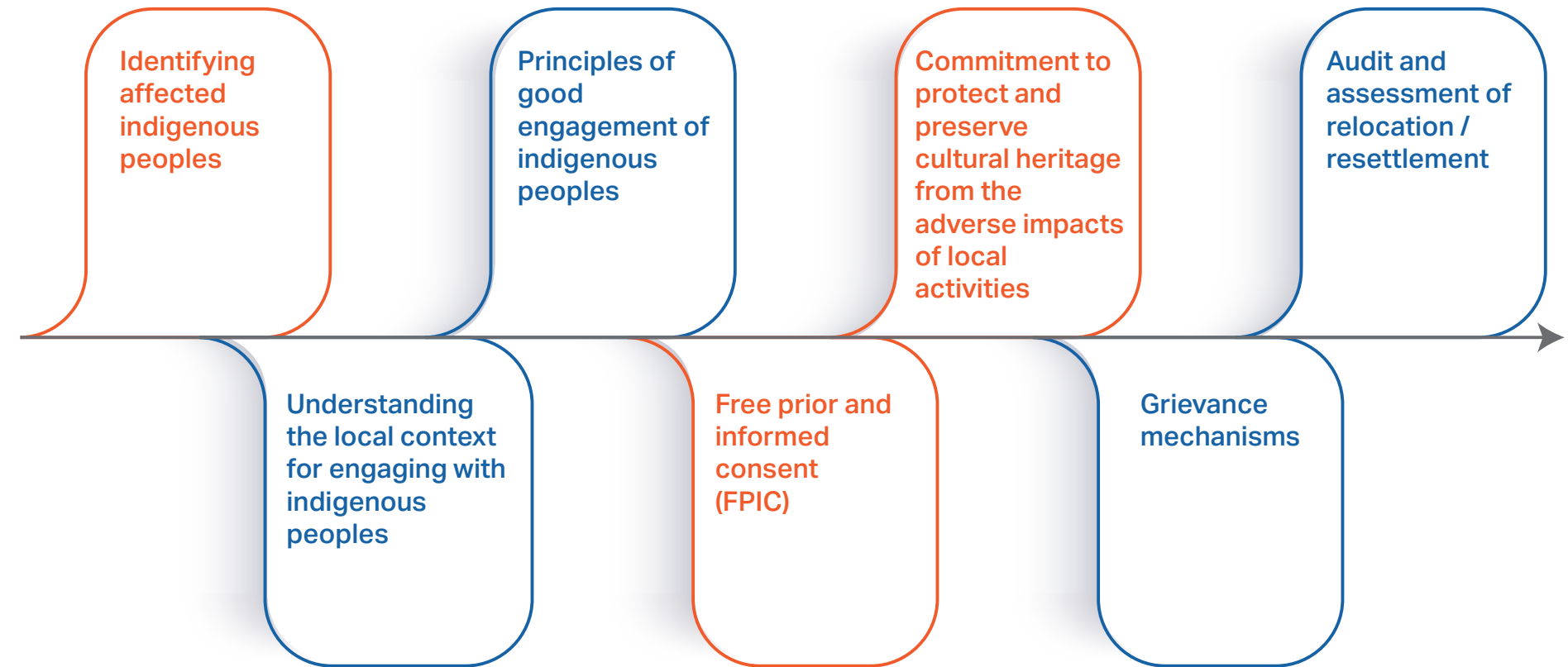**Resettle and rehabilitated**

261 families

Indigenous Peoples Rights

Mineral-rich regions in India and in many parts of the world are often home to indigenous peoples, who share deep bonds with the forests and tracts of land that contain this mineral wealth. Dependent on forest produce and to certain unique ways of living, these indigenous groups are repositories of knowledge, cultures, and practices that are distinctive and not part of the mainstream. At Vedanta, we hold great regard for the rights, cultures, knowledge, interests, and aspirations of Indigenous Peoples. Our commitment lies in establishing robust and enduring relationships with Indigenous communities and to promote their socio-economic development.

In all those areas of our operations that are contiguous to habitations of indigenous people, we try to ensure that there is no negative impact on people's specific rights to protect their cultures, traditional lifestyles, and close ties with land and water. Preserving cultural heritage is a fundamental component of our commitment to effectively manage our social impact. Our corporate actions align with the UN Declaration on the Rights of Indigenous Peoples and ILO Convention 169 on Indigenous and Tribal Peoples. These international frameworks provide guidance on respecting the rights and safeguarding the well-being of indigenous and vulnerable tribal groups.

To understand their perspectives and needs, we actively engage in dialogue and implement impact management processes that are designed after two-way consultations and have the support and agreement of affected communities. We have established the programme design, risk management controls and supporting information needed to avoid, reduce, and in some cases compensate for adverse project impacts on indigenous peoples and our approach is based on fairplay, whereby their marginalized status is not exploited, and standardized, internationally mandated mechanisms, based on fair market value, are used.

Refer, Restoring Lives and Communities:
Vedanta's commitment to Resettlement and Rehabilitation in Lanjigarh

Corporate approach to engagement with indigenous peoples

In the fiscal year 2019, we conducted an independent assessment to evaluate the Free, Prior, and Informed Consent (FPIC) requirements alongside the existing rigorous Indian regulations designed to protect the rights of indigenous communities. The study indicated that certain aspects of the Indian regulations align with the principles of FPIC. Where there are gaps, we are actively developing internal standards to ensure our compliance and uphold our commitment to FPIC. This exercise highlights our determination to follow well-regarded standards and best practices to ensure that our organization uses all means possible to protect the best interests of the indigenous peoples.

No incidents of violations were reported against the indigenous peoples over the last three years.

Human Rights

Given the nature of our industry, human rights assume great significance. We are sensitive to the need for following high standards of human rights within our business and are dedicated to safeguarding these rights throughout our value chain. Human dignity and the dignity of work is well aligned with our core values and central to the vision. Vedanta's reputation and relationships with employees, local communities, suppliers, customers, investors, governments, is directly influenced by our human rights actions.

Violations of human rights can lead to reputational damage, legal disputes, and strained relationships. On the other hand, when we respect human rights, uphold the dignity of labor, ensure fair treatment for our workforce, and provide a safe and secure working environment, we foster trust, cultivate a social license to operate, and establish a foundation for sustainable business practices.

Upholding high values through our Human Rights Policy and Code of Conduct

Vedanta's core value of Respect finds reflection in our approach to human rights. Driven by the objective of setting an industry benchmark in the area of human rights, the policy was updated in 2023 and is recognized and applied across the company. The 2023 update was developed in consultation with external and internal experts, reviewed by the Company's HSES and ESG ManCom's respectively and members of Vedanta's Senior Management Team, and approved by Vedanta's Board of Directors. Vedanta incorporates human rights considerations into its strategies for social management, environmental management, health and safety, security, and human resources. Our policy adheres to the United Nations Declaration on Human Rights, UN Guiding Principles of Business and Human Rights (the Ruggie Principles), Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social, and

Cultural Rights (ICESCR), International Bill of Rights, and ILO. We report on the potential impact of our operations on human rights and outline our methods for recognizing and minimizing associated risks. In 2023, Vedanta initiated the revision of our Social Performance Standard, encompassing human rights prerequisites. This move facilitates collaboration with our stakeholders to further advance our commitment to upholding human rights.Further, we are a member of the United Nations Global Compact and abide by its 10 principles.

By articulating our human rights approach in an inclusive way, the policy also serves as a guidance on issues pertaining to labour rights and industrial elations, and aids strategic decision-making.

Our pursuit of being the gold standard for workforce-focused policy development does not end here. We also take cognizance of the Modern Slavery Act, and have been complying with the Modern Slavery Act (UK) or MSA since 2016. We conduct periodic and systematic updates and audits to ensure that our vendors and supply chain are entirely free of slave labour. Each of our vendors and suppliers are mandated to provide a MSA self-declaration.

Our Code of Business Conduct and Ethics (COBE) is aligned with all relevant national laws and regulations. Every year, all employees and business partners have to give a positive affirmation that they continue to adhere to the requirements of COBE. Additionally, COBE is a mandatory part of our contract agreeements and our business partners have to abide by the as well.

Our Supplier Code of Conduct helps ensure that all third parties, including their employees, agents and representatives who have a business relationship with Vedanta, are bound by industry

standards as well as applicable statutory requirements concerning business integrity, labour and human rights, health, safety and environment

Human Rights Training

Annual training programmes are held to acquaint employees and contractual workers with our Human Rights policy and Code of Business Conduct and Ethics. This is to make our employees and contractual workers aware of their rights and responsibilities and ways of recourse in case of infringement of rights. The trainings are also aligned with our guidance notes, which have
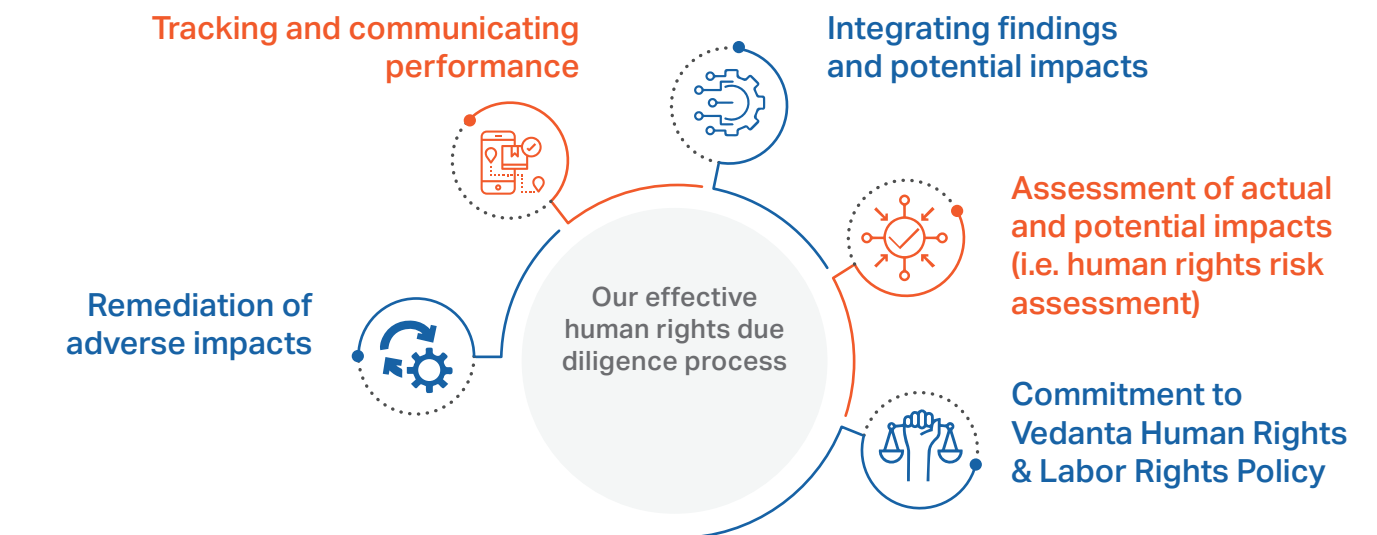
been developed in reference to the International Finance Corporation (IFC) Performance Standards and International Council on Mining and Metals (ICMM) guidelines.

81%
People trained on Human Rights

818
Suppliers Assessed

Human Rights Due Diligence Process
To minimize the risk of human rights infringements, we conduct a company-wide due diligence exercise bi-annually to systematically identify potential human rights risks and their likely fallout.

This exercise covers our own operations, our value chain and other activities related to our business. Human Rights due-diligence is an integral part of our risk assessment process when acquiring new business relations(of entities that are part of the Group by virtue of mergers, acquisitions, joint ventures etc.).

Tracking and communicating performance

Integrating findings and potential impacts

Remediation of adverse impacts

Our effective human rights due diligence process

Assessment of actual and potential impacts (i.e. human rights risk assessment)

Commitment to Vedanta Human Rights & Labor Rights Policy

Own Employees

Women

Children

Indigenous people

Third-party employees

Local Communities

Forced labor, human trafficking, child labor, Freedom of association, Right to collective bargaining, equal remuneration, discrimination, environmental impacts and anti-corruption

*The figure above shows the **actual or potential human rights issues covered/identified** and **the Groups at risk from the human rights issues covered/identified.***

Human Rights Assessment

In FY2022, we used the Global Compact Self-Assessment Tool[1] to conduct human rights assessment at all our sites. The assessments were carried out by cross functional site teams headed by site heads, including functional site leaders. The tool assessed site conditions on various thematic parameters such as management approach, health safety impacts, labour rights – including human trafficking, forced labour, child labour, right to collective bargaining and freedom of association, equal remuneration, discrimination, anti-corruption, and the rights of vulnerable groups. Through this assessment, we identified areas for development. Site level policies and plans have been modified and updated to ensure that human dignity is maintained in our day-to-day operations, and that every employee is treated

with fairness and respect. Of all sites that were assessed, 30.7% were identified to have potential human rights issues. The company has not caused nor contributed to any human rights violation, and therefore, no remediating actions were expected.

100%
Operational sites assessed

100%
high risk sites have mitigation plans

Potential Human Rights Risks Identified and Mitigation actions taken

Potential human rights risks	Mitigation actions
Health and safety	• Policies and standards to reduce the risk level in high-risk areas. • Structured monitoring, a review mechanism and a system of positive compliance reporting are in place • Vedanta Critical Risk Management programme will be launched to identify critical risk controls and to measure, monitor and report control effectiveness • 100% (VSAP and AO audits) sites are ISO 45001:2018/OHSAS 18001 certified and are audited by the third party once in three years • Implemented AI cameras (T-Pulse system) for reporting of unsafe acts/conditions automatically • Geo fencing to ensure unauthorised entries in most critical operational areas
Hours, wages and leave	• Roaster system for monitoring and capturing time-in and time out
Freedom of Association	• Compliance with the Modern Slavery Act (UK) or MSA since 2016
Forced labour Child labour	• Child and forced labour policy • Vedanta Sustainability Assurance Programme Module assessment, and all units are annually audited by a third party under VSAP • Digitised entry systems • Inspections and audits of all key suppliers and problematic issues are communicated to the contractor, and undertakes • Sustainability screening on human rights and child labour, environment, and labour aspects for all new suppliers and contractors
Discrimination	• Sensitisation and training for all employees • Established an Internal Complaints Committee (ICC) • Strict adherence to policy on discrimination and harassment • Grievance mechanism

Common Practices:

• Established Social Performance COP at group level

• A functional Social Performance Steering committee (SPSC) at all sites

• Each site has a Social Performance Manager (SPM), whose role is to drive the implementation of social performance principles at the location.

• Implemented standards on: Human Rights, Social Performance, Stakeholder Engagement, Grievance Mechanism

• Our suppliers adhere to the Supplier & Contractor Sustainability Management policy and supplier code of conduct

[1] Global Compact Self-Assessment Tool. Developed by the Danish Institute for Human Rights, the Confederation of Danish Industries, the Ministry of Economic and Business Affairs and the Danish Investment Fund for Developing Countries

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Artisanal and Small-Scale Mining

We understand the environmental and social risks associated with artisanal and small scale mining, more so in the emerging economies where government regulations may not be as stringent.

In 2023, we are aware that no related sector artisanal mining took place adjacent to our production sites at any of the locations. However, we understand the risk of artisanal mining lies in the geographies that we work in. Going forward, we intend to engage with local governments to increase awareness on environmental & social impacts of small-scale mining.

Security Practices

It is our goal to become signatories to Voluntary Principles on Security and Human Rights (VPSHR) by 2025. To achieve this goal, we have established the Security Community of Practice, which is responsible for implementing the requirements of the VPSHR. We conduct trainings for our security personnel on a regular basis, as they are our first line of defence and first informers in cases of human rights transgressions. To raise awareness about human rights, and emphasize the importance of responsible security practices, we proactively engage with both private and public security forces, promoting dialogue and sharing our corporate approach to enhance the overall security environment.

Right to Freedom of Association

We make no distinction between employees on our payroll and contractual workers. We follow a comprehensive system of contractual labour management and employee well-being practices and standards that are common across all our locations. We endorse the right to freedom of association. Transparent and fair discussions between union representatives and management are initiated to form collective bargaining agreements. These discussions cover remuneration, allowances, working conditions, incentives and bonuses, health and safety, manpower productivity, among others.

26%

of workforce covered by collective bargaining agreement (full-time employees)

Living Wage

Paying fair and commensurate wages to our workers is another aspect of the respect that we have for our workforce. Living wage methodology serves as a common model for evaluating and determining the minimum pay level that is acceptable and fair to give for a basic number of working hours and coverage of families' basic needs, we have referred to **"The Asia Floor Wage"** framework as our standard. This framework assesses the wage standards necessary for families to afford suitable housing, basic nutritional needs of a worker, education, healthcare, and savings. In

2022, we conducted an initial assessment that has given us a baseline against, which we are now drafting a living wage policy to be incorporated across our businesses. we have been offering significantly higher remuneration to our workers, across all our sites and have easily surpassed the minimum wage levels.

By FY2030, we aim to set the living wage across all our operational sites and to assess the wage structure of full-time employees, contractors, business partners and suppliers. Such an assessment will help us to identify those pockets within the workforce that earn below the norm and to bring them at par with normalised wage levels.

Local Employment

The approach that we take in engaging with the local communities that are proximate to our mines and plants is founded on a few key levers.

Creating employment opportunities: This is the foremost lever through which we ensure that the benefits of our business extends to the people living in the vicinity. There are various ways in which employment opportunities are created. In remote areas, we make sure that eligible people from the local population get recruited. We also conduct vocational and skill development trainings for local youth and housewives as part of our income generation activities. Further, the CSR programmes offered under our CSR policy take a bottoms-up community engagement approach and our employment generation activities are customized to the needs of the local populations, with project design and delivery done in consultation with the beneficiaries. In certain cases, even senior management positions maybe filled by individuals from nearby communities, given our commitment of providing commensurate employment. Our operations in other geographies contribute to job creation and growth of the local economy by recruiting a significant percentage of our workforce from the country where our operations are based.

21%
Share of local people in senior management positions at the operating site level

Local Procurement

Along with our focus on employment, we actively engage with local vendors and suppliers, wherever possible. By sourcing goods and services locally, we contribute to the growth and sustainability of local businesses, and stimulate economic activity within the region. As a part of our targeted CSR initiatives, we endeavour to generate direct employment through our operations and to encourage indirect employment. By training local populations in skills and trades where business opportunities exist and where they can commercially transact with the company, we help to build a positive ecosystem of employment generation and sourcing and procurement that works beneficially for both us and our dependent communities. In this way, we foster long-term economic progress in the regions where we operate.

INR 351.16
billion spent on local procurement

Project Utthan boosts employment opportunities in Kalahandi and Rayagada

Project Utthan is committed to creating jobs for educated youth in Kalahandi and Rayagada, with a focus on graduates. Recently, they recruited 73 young individuals from these districts for roles at an alumina refinery, 43 from Kalahandi, and 30 from Rayagada. In a ceremony at Bhawanipatna Town Hall, Ms. P Anwesha Reddy, the District Collector, handed out appointment letters to the Kalahandi recruits, marking the beginning of their careers and underlining their dedication to local youth employment. The program includes additional training to nurture their skills and promote growth into leadership roles.

Since its inception, Vedanta Lanjigarh has employed over 270 graduate students from Kalahandi and Rayagada in both technical and non-technical positions. Many have risen to managerial roles, enriching the company's pool of capable local employees. Over the years, approximately 4,000 individuals from these districts have found employment in technical roles, significantly boosting rural incomes and developing the talents of local youth who might not have had such opportunities otherwise. Project Utthan continues to bridge the gap between education and employment, fostering growth and development in these regions.

Local employment created for
4,000
individuals

Project Uthan - NSW at Lanjigarh - employment Graduate youths from Kalahandi and Rayagada trained under Project Uthan

Flagship programme: Nand Ghars

Anil Agarwal Foundation, the philanthropic arm of Vedanta Ltd., focuses on several key areas, including Nand Ghar Nutrition, Healthcare, Education, Women Empowerment, and Animal Welfare. The foundation's marquee CSR project, Nand Ghar initiative aims at transforming the lives of millions of children and women in India. With a comprehensive vision and a model Anganwadi approach, the foundation aims to provide holistic development opportunities through education, healthcare, nutrition, and skill training. The foundation's comprehensive approach aims to uplift communities and create a sustainable impact.

Vision

Anil Agarwal Foundation aims to positively impact the lives of 70 million children and 20 million women across 1.37 million Anganwadis in India. This transformation is progressing through the implementation of Nand Ghars, which offer best-in-class curriculum delivered via televisions for e-learning, doorstep healthcare services, hygienic pre-cooked meals for nutrition, and customised skill training programmes to economically empower women throughout the country.

Model Anganwadi Approach

The Nand Ghar initiative focuses on various essential aspects of child and maternal welfare:

- **Maternal and Child Health**

  Through trained Maternal Health Visitors (MHVs) and strengthening government delivery systems, primary healthcare services are provided, ensuring the well-being of mothers and children.

- **Nutrition**

  Healthy and nutritious food is provided to reduce malnutrition, ensuring that children receive proper nourishment for their growth and development.

- **Early childhood education**

  Innovative teaching tools are employed to deliver quality pre-school education to children aged three to six years, laying a strong foundation for their future.

- **Skill and entitlement**

  Women are empowered through skill development programs and market linkages, enabling them to earn a sustainable livelihood and improve their socio-economic status.

- **Building as Learning Aid**

  Nand Ghars are constructed or upgraded with state-of-the-art technology, serving as centres for holistic development and learning. The initiative has already been impacting the lives of 240,000 children and 180,000 women annually, with a target to reach 1,200,000 children and 900,000 women by 2024. The foundation aims to expand its reach significantly by providing a comprehensive support system that strives to break the cycle of poverty and empower vulnerable communities across India.

Nourishing Futures: Empowering Children with Multi-Millet Nutri-Bars

As a key component of our flagship project, Nand Ghar, which focuses on the well-being of children and women, a nutrition initiative was recently introduced. The pilot project that started in 2023 is planned for 6 months since then and involves the distribution of nutrient-rich multi-millet bars to children, aimed to enhance their overall development. This effort aligns with the Government of India's POSHAN Abhiyaan, which emphasises the importance of nutrition. The Prime Minister, Shri Narendra Modi, has officially designated the year 2023 as The International Year of Millets. This significant declaration emphasises the crucial role of millets in the development of a nutritious and healthy diet, specifically aimed at addressing concerns related to malnutrition. In support of the government's initiative, Vedanta has introduced a nutri bar as part of its efforts to enhance the nutritional intake of children aged three to six years, by complementing government-provided meals. This initiative follows a 6x6x6 model, delivering multi-millet bars containing six power-packed ingredients for six days of the week over a period of six months. The distribution of these bars is focused on three blocks in Varanasi, namely Sewapuri, Arajiline and Kashi Vidyapeeth, benefiting nearly 50,000 children attending the Anganwadis, including Nand Ghars, across 1,400 locations daily.

The expected outcome is:

- To create a positive differentiator in improving the daily nutrient intake of children

- To boost children's cognitive development

- To reduce absenteeism while increasing enrolment in pre-schools at centres

Aim 2

Empowering over 2.5 million families with enhanced skillsets

Key Material Issues

Community Engagement & Development

At Vedanta, we believe that the well-being of the communities where we do business is crucial for the long-term prosperity of our company. Communities give us the social licence to operate and are therefore a top priority in our efforts to strengthen our bonds and gain trust and support. Building and maintaining a social license to operate is essential for the long-term sustainability of our operations; which, in turn, provide employment opportunities, stimulate local economies, and contribute to local development through various community development initiatives at the site level.

In FY 2023, we allocated ₹4,460 million to various community programmes, positively impacting the lives of 44 million people. Over the past five years, we have spent ₹17.5 billion for this same purpose.

Aim 3

Uplifting over 100 million women and children through education, nutrition, healthcare and welfare

Women Empowerment

Project Nayi Kiran - Menstrual Health Management

Menstrual health and hygiene play a significant role in womens' health and wellbeing and in safeguarding their dignity, privacy and self-worth. However, menstrual health has often been a subject of social stigma, particularly in rural India, leading to low awareness, poor access to menstrual hygiene products and lack of support and understanding from other family members.

BALCO realized the gravity of this issue, and its ability to limit the potential of young women. To address this problem, the company partnered with Sarthak Jan Vikas Sansthan (SJVS) to launch Project Nayi Kiran in 2019. The project objectives were developed on the recommendations of the need assessment study conducted by TARU Leading Edge and sought to:

- Raise awareness about menstruation, hygienic practices and product choices among women and young adolescents and important stakeholders and community members

- Build capacity, so that awareness initiatives could multiply and penetrate deeper to reach marginalized and less accessible groups like differently abled girls and women

- Foster leadership among women, adolescent girls and even young men to spread the message far and wide.

In the four years since its launch, BALCO has spent close to INR 170 million and the project has now reached over 48,000 individuals, including women, men, adolescent girls, and boys. The project has indeed proven to be a ray of hope, as its name promises, spreading awareness and dispelling myths about menstruation and truly 'Transforming Together' as it has been overwhelmingly embraced by the community across 45 neighboring communities at BALCO, covering all the 5 blocks of Korba district viz. Korba, Podi Uproda, Kartala, Pali and Katghora. The success of the project lies in its multi-level outreach and its use of powerful local influencers like SHG women, health workers and adolescent youth leaders to drive the message home.

The project's success has been driven by certain key levers:

Use of multiple modes of communication

The primary project objective was to demystify all the misinformation around menstruation and highlight its biological and health-related role for women, so that it would be viewed as a natural bodily process requiring appropriate attention. The change which was sought required both attitudinal and behavioural change, and the means of outreach were thus diverse, with the intent of communicating strongly and repeatedly. From door-to-door campaigns to nukkad nataks; school awareness sessions to gram sabhas – the message was communicated to people across genders and age.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Creating Leaders

To initiate and sustain the social and behavioural change across communities, it was important to engage powerful local influencers so that a chain of learning and sensitization could be built. More than 600 SHG women and frontline health workers (including anganwadi and ASHA workers), adolescent girls and boys were trained as 'Master Trainers' on Menstrual Health Management (MHM). Involving "Men in Menstruation" by training adolescent boys and youth from the community was a calculated step to create inclusive buy-in and to present MHM as a 'community' health and well-being issue, thereby creating empathy with the woman's situation. The community now takes the lead by organizing MHM-friendly gram sabhas, that carry forward the work of spreading awareness and building support, and is a testimony to the positive change that has been achieved.

Transitioning to Hygienic Menstrual Health Practices

The project has successfully created awareness about menstrual hygiene across a wide cross section of young girls and women, introducing them to menstrual health products and aids. As a cost-effective and easy option, we have initiated the 'Stitch My Own Pad Campaign' under this project wherein 30 SHG women and adolescent girls have been taught methods of making reusable cloth pads. This has also opened up business opportunities for the SHG women.

As a part of the school awareness sessions, adolescent girls have been sensitized about menarche and ways to manage it better. More than 50% of the block-level government secondary and higher secondary schools of

Korba have been transformed into MHM-friendly environment through such training. The first ever MHM session for specially-abled students has also been organized at Korba's only government school for the differently abled.

Creating MHM infrastructure

BALCO has established four Swastha Suvidha Kendra's (SSK centres) as a one-stop solution point for MHM. It is driven by adolescent leaders and functions as a platform for counselling and capacity building where girls and women come to learn and further propagate the knowledge that they gain on menstruation.

The impact created by the project has been life-changing, and the community has driven through Nayi Kiran with great momentum as it answers a heartfelt need. So far, more than 48,000 community members have been sensitized on MHM; more than 600+ community leaders
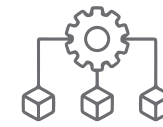
Community Infrastructure

Reviving Indigenous Handicrafts - Dhokra Craft and Saura Art
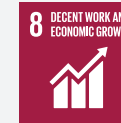
Vedanta Lanjigarh initiated a mission to revive two traditional art forms, Dhokra metalwork and Saura tribal paintings, which carry immense cultural significance in India's history. In Lanjigarh's Kankeri village, artisans struggled to sustain their craft, pushing many to abandon their ancestral skills for migrant labor. Similarly, the future of Saura art in Odisha was uncertain. Vedanta recognized the need to preserve these art forms and took proactive steps.

To support the artisans, Vedanta provided training in contemporary designs using modern techniques, enhancing their ability to create marketable products. The company facilitated their participation in events, exhibitions, and art shows, promoting and selling their work at better prices. Financial assistance and financial literacy training empowered the artists to manage their earnings effectively.

The impact of the Dhokra Art Revival project has been substantial. A community of poor migrant laborers in a remote Kalahandi jungle village transformed into thriving, prosperous artists. Household incomes increased by over 50% since the project's inception. Recognizing its success, local authorities extended government social schemes to the village, including access to electricity and LPG connections, and improved essential infrastructure.

Expanding the project to other villages, Vedanta aims to prevent artists from migrating in search

of employment, enabling them to earn a livelihood in their villages. In FY23, Dhokra and Saura artists achieved INR 0.7 million in sales, resulting in an average 15% growth in household income. Vedanta also launched an online art gallery to increase market reach and visibility.

Vedanta's efforts in reviving indigenous handicrafts, Dhokra craft, and Saura art, not only preserved these traditions but also economically empowered the artists. Through training, marketing support, and financial assistance, the project transformed the lives of artists in Kankeri village and beyond, attracting attention from local authorities, leading to essential infrastructure development and inclusion of social schemes.

Dhokra art - Tribal couple
A bronze sculpture depicting a tribal couple

Sports and Culture

Promoting Archery for Student Development in Lanjigarh

Sports play a vital role in the growth and development of students, contributing to their mental well-being and physical fitness. Vedanta recognises the importance of sports and has been actively supporting archery in Lanjigarh to enhance the performance of students in this discipline. Archery is deeply rooted in tribal culture and acts as a motivator for youths to engage in the training programme. As a part of this initiative, Vedanta provides extensive assistance to talented students, offering equipment, uniform kits, and certified trainers to develop their skills so that these students can excel in archery.

These efforts have yielded significant results. The project's achievements include:

a) National Level Performances

Of the 100 students trained, 18 students from Lanjigarh have successfully qualified and participated in various archery championships at the national level.

This accomplishment showcases their dedication and the effectiveness of the training provided.

b) State Level Competitions

The supported students have excelled in state-level competitions, securing a remarkable 85 medals; 26 gold, 25 silver, and 42 bronze, highlighting their exceptional performance and the impact of Vedanta's support.

c) Equipment and Uniform Support

Vedanta has facilitated the progress of 30 archery students by providing them with essential equipment and uniform kits. This support ensures that they have access to the necessary resources for their training and participation in competitions.

Microenterprises

Economic Prosperity through Microenterprises

The transformational narrative of economic empowerment has unfolded with the launch of DAICHI brand, spearheaded by Ms. Priya Agarwal, the Chairperson of HZL as a commitment to fostering economic growth and innovation.

The venture commenced with the establishment of the Sakhi Pickle Unit at Rudrapur and the Sakhi Namkeen Unit at Zawar. This visionary move led to the creation of 12 exciting snack variants and 5 diverse pickle options. These culinary offerings not only delighted palates but also symbolized a commitment to diversity and culinary excellence.

Expanding its reach beyond traditional markets, DAICHI introduced a novel 'Store-in-Store' concept at Udaipur's Celebration & Paras Mall. showcasing DAICHI products in a setting that seamlessly blends tradition with modernity. The success of this concept has led to the establishment of 10 additional 'Store-in-Store' outlets and Sakhi Haat, fusing innovation with accessibility.

A pivotal facet of DAICHI's journey is the 'Business Sakhi' initiative, where economic landscapes transformed as sales reached an impressive INR 4,373,000 in FY 23. This milestone, however, represents more than just numbers – it reflects the collective dedication of Sakhis, whose efforts contributed to a total income of INR 3,337,000. With three distinct brands – Upaya for apparels, Daichi for food, and Guaum for dairy – a vibrant ecosystem emerged, weaving dreams of prosperity.

Operating under the nurturing umbrella of the 'Heart with Fingers' (HWF), known as WIP, the initiative witnessed a remarkable surge. The Dairy Processing Unit exemplified this growth, recording a staggering 6-fold increase in milk intake within a mere 8 months, surging to 600 liters per day. The cumulative yearly results were equally impressive as 1,42,941+ liters of milk were procured, yielding 35,495 liters of butter milk and 489 liters of ghee annually.

The DAICHI initiative also extended partnerships, contributing to INR 15,100,000 in convergence through collaborations with PNB Housing, NABARD, and Capri Global. The DAICHI story serves as a beacon of hope, illustrating how economic prosperity is not just a concept, but a tangible reality. Rooted in commitment, innovation, and community, the journey embodies the potential of microenterprises to elevate lives and reshape destinies.

290
Women Engaged

12
Microenterprises

INR 33.1 million
Business Turnover

200+
Products Range
(Textile, Food & Animal Feed)

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Transforming the Planet

Future growth should be impact neutral for the environment if life on Earth is to continue. This undeniable truth is the conundrum that businesses must solve. As an industry leader we have taken on this challenge proactively, and set ourselves key zero impact goals – to reach Net Carbon Zero by 2050, become Net Water Positive by 2030 and to achieve Net Positive Impact for all sites designated as critical habitats.

Our net-carbon neutrality strategy uses a mix of reduce and replace to achieve its goal, by switching to alternate fuels and renewable energy, through LMV decarbonization and by altering our operations and processes to become more environment-friendly.

Our water positivity goal takes a multi-level route including the adoption of less water-intensive technologies, embedding circularity and replenishing water in watersheds and other community sources.

We have taken the No Net Loss and Net Positive Impact commitments to ensure that we leave behind a greener footprint.

We are on a mission to make mining compatible with sustainable living and we are tackling the task through innovation, meticulous planning and a science-based approach.

In this section

Aim 4
- Net-carbon neutrality by 2050 or sooner

AIM 5
- Achieving net water positivity by 2030

AIM 6
- Innovating for a greener business model
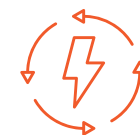
KEY HIGHLIGHTS

GHG Intensity
6.25 TCO$_2$e
per tonne of metal
(4% lower from FY 2021 baseline)

~164%
recycling of our HVLT waste

39.29
GJ/INR million
energy intensity

4
water positive business units
(HZL,IOB, Cairn and BMM)

Board

```
Board
  │
  ▼
ESG Committee
  │
Executive Management
  │
  ▼
ESG ManCom
  │
Implementation
  │
  ▼
Community of Practice (CoP)
  │
Topics Covered
  │
  ▼
```

- Energy
- Climate Change
- Water
- Waste
- Biodiversity
- Tailings

SDG

6 CLEAN WATER AND SANITATION | 7 AFFORDABLE AND CLEAN ENERGY | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | 13 CLIMATE ACTION | 15 LIFE ON LAND
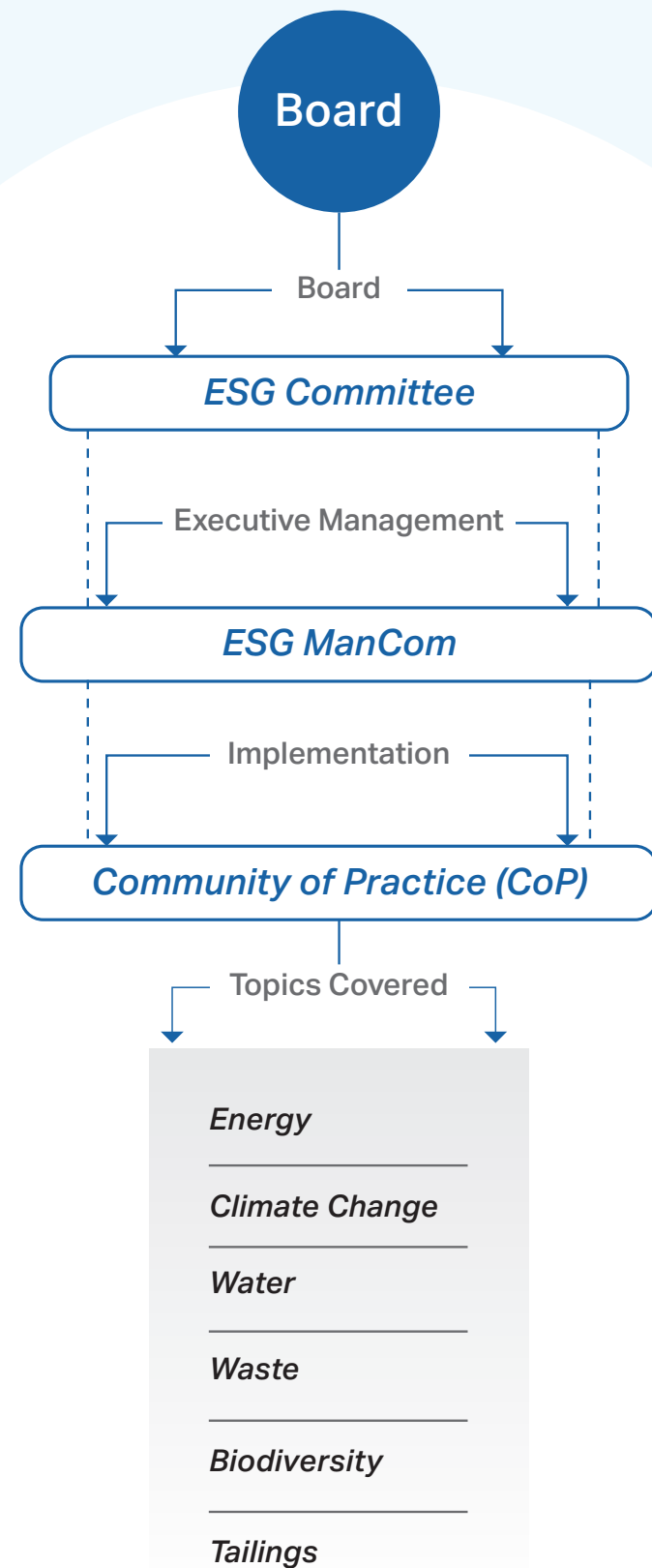
POLICY

Environmental Policy, Energy & Carbon, Water Management Policy, Tailings Management Policy, Biodiversity Policy

STAKEHOLDERS IMPACTED

Employees, Local Community, Civil society, Industry, Governments

TARGET

Aim 4

FY 2025:

20% reduction in GHG intensity of metals business (baseline: FY2021)

500 MW of renewable energy mixmix

50% LMVs to be decarbonised

Achieve energy savings of 10 million GJ

FY 2030:

25% reduction in absolute emissions by 2030 (baseline: FY2021)

2.5 GW of RE RTC or equivalent

100% of LMVs decarbonised

Aim to spend US$5 billion by 2030 to accelerate transition to net-zero

Commitment to accelerate adoption of hydrogen as a fuel and seek to diversify into H2 fuel or related businesses

Aim 5

FY2025:

15% reduction in freshwater consumption (Baseline: FY2021)

Zero category 5 incidents related to water

10% increase in the water recycling rate (Baseline: FY21)

FY 2030:

Net water positivity

Aim 6

FY 2025:

Sustain the fly ash utilisation at 100%

100% low toxicity, high volume generated waste to be utilised

All tailing facilities audited and critical actions closed with real-time monitoring

Review of site biodiveristy risk across all our locations

FY 2030:

Zero legacy ash

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Aim 4

Net-carbon neutrality by 2050 or sooner

Key Material Issues

Climate change and decarbonisation

Climate change is the single biggest challenge facing humanity today. From rising sea levels that threaten catastrophic floods to searing heat waves that cause droughts and wildfires, the global temperature rise has triggered a chain of events that is likely to change Earth forever. Caused by human activities, the onus and responsibility for arresting climate change and mitigating its impact also lies with us.

For such attempts to be effective and real, it must be collaborative and coordinated, and businesses have a leading role to play. As a metals and mining company, climate change can affect us in several ways. Here we understand what these are and evaluate the repercussions:

Disruption of business as usual

Extreme weather events like hurricanes, floods, droughts can disrupt mining operations and damage infrastructure, making it difficult to extract and transport minerals. This, in turn, can disrupt the supply chain for metals, while also significantly increasing costs for metals and mining companies.

Water scarcity and conflicts

Climate change-related water scarcity can also affect the processing of metals. Mineral extraction and purification processes extensively use water. However, changing weather patterns have triggered variability in precipitation levels, causing certain regions to become more water stressed than earlier. This can lead to situations of conflict with other stakeholders, as competition increases for shared and dwindling water resources, leading to serious operational hurdles and even jeopardising our social licence to operate over the longer term.

More regulations leading to higher operating costs

Governments across the world have been tightening regulatory and compliance requirements as climate change gains in severity, and global consensus for taking emphatic action, builds. Measures like carbon pricing, additional regulations to reduce greenhouse gas emissions maybe introduced in the future. This will further increase costs and affect the profitability of the company.

The role of metals in the low-carbon economy

The low-carbon economy cannot come into being without the use of metals and rare earth minerals. Metals like aluminium, copper, lead, lithium, manganese etc are making the transition to green energy technologies possible. The importance of our role in determining the next course in human history thus makes it doubly important for us to adopt a low-carbon path to our growth. As an organization, we are committed to reaching Net Carbon Zero by 2050 or potentially earlier.

We have already put in place a definitive course of action with our decarbonisation and energy use targets identified for 2025 and 2030. These targets have been developed through a thorough, science-based assessment. To reach our goals, we have developed a comprehensive climate change strategy and roadmap, which includes an extensive climate risk assessment and scenario analysis. Our FY 2030 and FY 2050 GHG reduction commitment targets are aligned with the 2°C Science Based Target Initiative (SBTi) scenario.

Climate Governance

Climate change is considered a crucial governance issue at the Board level, and it is regularly discussed in various contexts such as strategy discussions, business performance, investment decisions, and the assessment of scenario triggers and signposts . The Board members bring diverse expertise from sectors including resources, energy, finance, government, and public policy.

At Vedanta, we have implemented a comprehensive governance framework to effectively integrate climate change considerations into our business operations and strategic planning. The Board assumes responsibility for overseeing all sustainability matters, which includes the climate change agenda.

Aligning with the global call for climate action and transparency, we have taken the bold step of integrating climate considerations into our long-term strategies and decision-making processes. Our management is firmly committed to stewarding a low-carbon growth path for our Company and oversees the systematic implementation of our climate-focused strategies. Our ESG Board Committee meets twice a year to discuss climate issues and their implementation. Climate issues are also on the agenda of the Board of Directors and come up for annual review and discussion.

Our climate change strategy and roadmap follows the guidelines set by the Paris Agreement to limit global temperature rise to well below 2°C, ideally within 1.5°C. The strategy revolves around:

4-stage GHG Reduction Roadmap aligned with 2º C scenario.

From 2021 to 2025, we plan to reduce GHG intensity (TCO_2e/MT) of our metal businesses by 20%, with the cumulative change achieved being assessed in FY 2025, for a FY 2021 baseline.

From 2021 to 2030, we will create renewable energy capacity that can ensure 2.5 GW of Round-The-Clock (RTC) equivalent renewable power power for our facilities by FY 2030.

Between 2026 to 2030, we will push towards decarbonisation to actually start yielding results. We anticipate a reduction in our absolute GHG emissions in line with our target of 25% absolute GHG emissions reduction by FY 2030. This will be against a FY 2021 baseline.

Beyond 2030, we will deploy emerging technologies at scale and expand our renewable energy capacities to become a net-zero carbon business by FY 2050.

We are fully committed to becoming a "Net Zero Carbon" organization by 2050, or potentially even sooner. To achieve this goal, the Company has identified four key levers that will help us to reduce GHG emissions and meet our 2030 emission targets. These levers will pivot around renewable energy deployment, switching to low-carbon or zero-carbon fuels, improving energy and process efficiencies, and purchasing carbon offsets for residual emissions.

Net GHG emissions of 3.31 $MTCO_2e$ against FY 2021 baseline and 14.73 $MTCO_2e$ against 2012 baseline

Levers for achieving decarbonization

Lever 1: Increasing Renewable Energy

- By end of FY 2023, power delivery agreements (PDAs) for 788 MW of renewable energy have been finalized and an additional 50 MW has been approved by the Board.
- Resultant avoidance of 6.6 million tonnes of CO_2e per year
- 32% of the target of 2,500 MW RE-RTC power by 2030, aligned

Lever 2: Switch to low-carbon/zero-carbon fuels

- Target of 5% coal substitution with biomass in our thermal power plants

  (i) In FY 2023, 4x YoY growth in biomass usage, reaching approx 78,000 MT
- Fleet electrification for mining fleets and Light-Motor-Vehicles:

  (i) HZL launched its first BEV for working underground and first LNG-powered 55-tonne heavy-duty trucks

  (ii) Jharsuguda facility is running 27 electric forklifts
- Biofuel trials underway at BALCO and VAL-Jharsuguda and will soon start at Sterlite Copper and Sesa VAB

Lever 3: Improving the energy and process efficiency of our operations

- Several energy efficiency projects completed:
- (i) R&M of 1 unit of 600 MW at VAL Jharsuguda **Savings potential 370,000 TCO_2e/year**
- (ii) VAL Lanjigarh Evaporation - 1 Calendria 1 & 2 tubes replacement **Savings potential 18,000 TCO_2e/year**
- (iii) VAL Lanjigarh Boiler 2 junior APH replacement **Savings potential 16,000 TCO_2e/year**
- (iv) ESL Fuel crushing index improvement **Savings potential 31,000 TCO_2e/year**
- (v) ESL LD gas recovery project completion **Savings potential 18,000 TCO_2e/year**

Several projects are planned with the target of bringing energy efficiencies to the aluminium sector. These include:
- (i) 100% graphitisation with copper inserted collected bar **Savings potential: 1.1 $MnTCO_2e$/year**
- (ii) Vedanta pot controller implementation **Savings potential: 0.2 $MnTCO_2e$**
- (iii) Commissioning of TRT and BPRT at ESL **Savings potential: 82,000 TCO_2e/year**
- (iv) Natural gas usage at Lanjigarh alumina refinery **Savings potential: 1,20,000 TCO_2e/year**

Purchase of carbon offsets for residual emissions *Lever 4*

We will consider this option for hard-to-abate GHG emissions at the end of our target period, once our mitigation drives are over.

We aim to spend US$ 5 billion over the next decade to expedite our transition towards Net Zero operations.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Climate-related Risk Assessment

We carried out an in-depth climate risk assessment and scenario analysis to comprehensively understand and analyse the risks and opportunities posed by climate change to our business. The findings of these studies helped to make a roadmap to achieve Net Zero target by 2050.

- **Physical risk assessment:** As part of the physical risk assessment, acute risks arising out of increasing severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns were studied for 55 business locations. We studied the historical trends and future projections of various climate hazards such as change in temperature, change in precipitation, floods, droughts, and cyclones to understand how the changing climate may impact our different business locations. Two climate change scenarios RCP 8.5 and RCP 4.5 were used for two time periods 2020 to 2039 and 2040 to 2059 extending over Vedanta's short, medium and long-time frames.

- **Transition risk assessment:** For our transition risk assessment, we used the Network for Greening the Financial System (NGFS) Scenarios developed in partnership with an academic consortium from the Potsdam Institute for Climate Impact Research (PIK), International Institute for Applied Systems Analysis (IIASA), University of Maryland (UMD), Climate Analytics (CA) and Eidgenössische Technische Hochschule Zürich (ETH).

For more information, please refer to our TCFD report 2023.
https://www.vedantalimited.com/SiteAssets/Images/TCFD-Report-FY23.pdf

Internal carbon pricing aids the transition to decarbonisation

At Vedanta, we are using Internal Carbon Price (ICP) to future-proof our business against potential ad hoc cost escalations. By embedding climate risks into our investment decisions and proactively directing our focus towards clean energy technologies, processes and ecosystems, we are ensuring that our preparedness extends across our businesses and countries of operation. ICP, is a voluntary price that is linked to every unit of CO_2 emissions. From FY 2023 onwards, we have set the ICP at $15/tCO$_2$e.

The ICP mechanism is applicable across all our BUs and is used for capex evaluations that fulfil the following criteria:

- All capital expenditure (excluding admin, security, IT, digital and pre-operative expenses) > INR 50 million made by Vedanta and its operating subsidiaries.

- Any project, with GHG emissions > 500,000 MT, irrespective of the cost

- Any exemption from this policy has to be pre-approved by Group Energy & Carbon Community of Practice Forum

For a detailed report on climate related risk assessment please refer to our TCFD Report

Systematically reducing our GHG Emissions

In FY 2023, our operations emitted 65.36 MMT of CO_2e from Scope 1 and Scope 2 sources, marking a 4.02% increase compared to FY 2022. This is in line with our projections of increasing GHG emissions till FY26 when our emissions are expected to peak. Our Decarbonization Plan for FY 2021-2030 recognizes that we have a high carbon footprint as our operations are heavily reliant on coal-based energy. The plan sets short-, medium- and long-term GHG emission reduction targets to reach our Net Zero goal in a phased manner, while also fulfilling national and international commitments and generating sustainable value for our business and stakeholders.

Chart — Absolute Emissions:

- FACOR expansion **3** | **12** Planned MW RE RTC (~1,900 MW)
- HZL + VZI expansion **4** | **5** Energy conservation projects
- **3** 5% Biomass firing
- Steel expansion **5**
- **71**
- Pending RE RTC (~600 MW) **6**
- Additional RE RTC (~2,000 MW) **12**
- **65** **14** Aluminium expansion
- Additional 5% Biomass **3** Offsets **5** **45**
- **62**
- 26 MMTCO$_2$e
- 20 MMTCO$_2$e
- 26 MMTCO$_2$e
- Projects Planned
- Actions Required
- FY21 | FY23 | FY25 | FY30 Actual | FY30 Target

Legend: ■ FY Emissions ■ Growth Projects ■ Decarbonization initiatives | All Emissions are in Million Tonnes CO_2e

This year, we saw a significant rise in Scope 2 emissions and a corresponding drop in Scope 1 emissions due to the coal supply crisis faced during the year. As more energy was taken from the grid and less energy was produced at our captive power plants our Scope 1 emissions were substantially lower than in earlier years.

Our Scope 3 emissions make up almost 35% of our total GHG emissions, which is a higher share than the other two categories of emissions that we produce. Just the oil & gas business accounts for nearly 65% of our Scope 3 emissions. This higher share originates from the nature of Vedanta's business, with many emissions creating activities lying beyond the boundaries of our business.

Since 2021, we have begun accounting for our Scope 3 emissions which are prepared based on the GHG Protocol's Scope 3 Value-Chain Accounting and Reporting Standard for Oil & Gas and Steel sectors. While accounting for our emissions, we include the CO_2 carbon equivalent for CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3. However, currently Vedanta does not have company-wide, Scope 3-specific emissions reduction targets but we are actively working towards finalizing these by the end of FY 2024.

Almost 60% of our total annual emissions originate from the aluminium smelters in Jharsuguda and Korba, and the alumina refinery at Lanjigarh. As we move toward decarbonisation, we are trying to achieve carbon-neutral growth and our plans for increasing alumina operations to 2.8 million capacity by FY 2024, puts this option into action.

Managing emissions from aluminium operations

Responses
Renewable energy, biomass co-firing, carbon offsets

GHG emissions reduction timeline

Produced
65 MTCO$_2$e
in FY 23

To reach
45 MTCO$_2$e
by 2030

GHG Intensity - Metals Businesses (Million TCO$_2$e/MT)

Business Unit	FY 2021			FY 2022			FY 2023		
	Production	Emission - MTCO$_2$e (Scope 1 & 2)	Intensity (TCO$_2$e/ton of production)	Production	Emission - MTCO$_2$e (Scope 1 & 2)	Intensity (TCO$_2$e/ton of production)	Production	Emission - MTCO$_2$e (Scope 1 & 2)	Intensity (TCO$_2$e/ton of production)
Aluminium	3.82	36.03	9.44	4.24	37.64	8.88	4.14	37.99	9.17
Steel	1.29	2.95	2.3	1.36	2.57	1.9	1.37	3.11	2.27
Iron Ore Business	0.59	1.67	2.82	0.79	2.04	2.58	0.70	1.75	2.51
Facor	0.06	0.44	6.4	0.08	0.46	6.17	0.07	0.40	5.97
Copper	0.12	0.11	0.89	0.13	0.10	0.76	0.16	0.11	0.69
Zinc India	0.98	4.89	5	0.97	4.82	4.98	1.02	4.58	4.49
Zinc International	0.20	0.22	1.07	0.23	0.24	1.02	0.25	0.23	0.92
Vedanta- Metals Business	7.06	46.31	6.56	7.79	47.87	6.14	7.71	48.18	6.25*

This number excludes Fujairah and BMM

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Building up our renewable energy resources

In 2022, we announced a 2.5 GW commitment to renewable energy. As a part of this commitment, we have entered into a partnership with Serentica Renewables to develop ~0.9 GW of RTC RE equivalent power across Karnataka, Rajasthan, Maharastra, & Andhra Pradesh. This work will be completed in two phases, with first power coming online in FY25. Discussions are underway to further develop the remaining 1.6 GW of RE power.

Energy efficiency measures

We have successfully implemented a range of targeted energy reduction initiatives that are driving impact by improving energy efficiency and reducing consumption.

Achieving Impactful Energy and Emission Reduction Through Targeted Initiatives
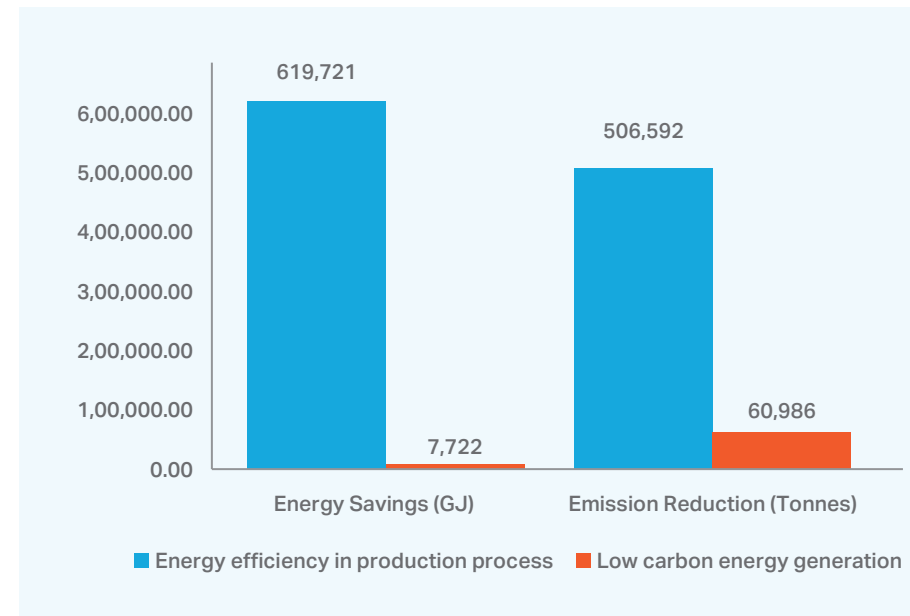
Reduction figures reported are based on estimated energy and GHG savings, not the actual reduction realized.

Direct and Indirect Energy Consumption (million GJ)
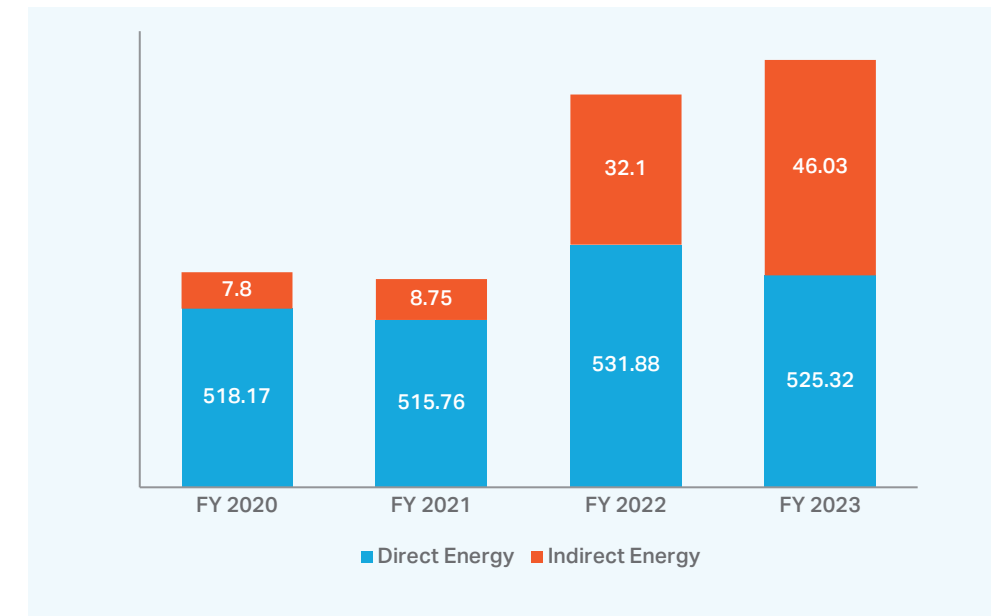
Renewable and Non-Renewable Energy Consumption (million GJ)

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Shift towards green economy

Consumer preferences have been steadily shifting in favour of sustainable products, as the ravages of climate change become more devastating and governments and other international bodies seek to do more for greater everyday impact. For every manufacturing industry, the journey towards greater sustainability has a product and process aspect. While we have already discussed the multiple changes that our traditionally energy-intensive manufacturing processes are now making, product innovation is another fascinating aspect of our sustainability transformation. This aspect involves innovative approaches like embracing circularity through the use of reclaimed and recycled material, as well as, the use of ground breaking technologies.

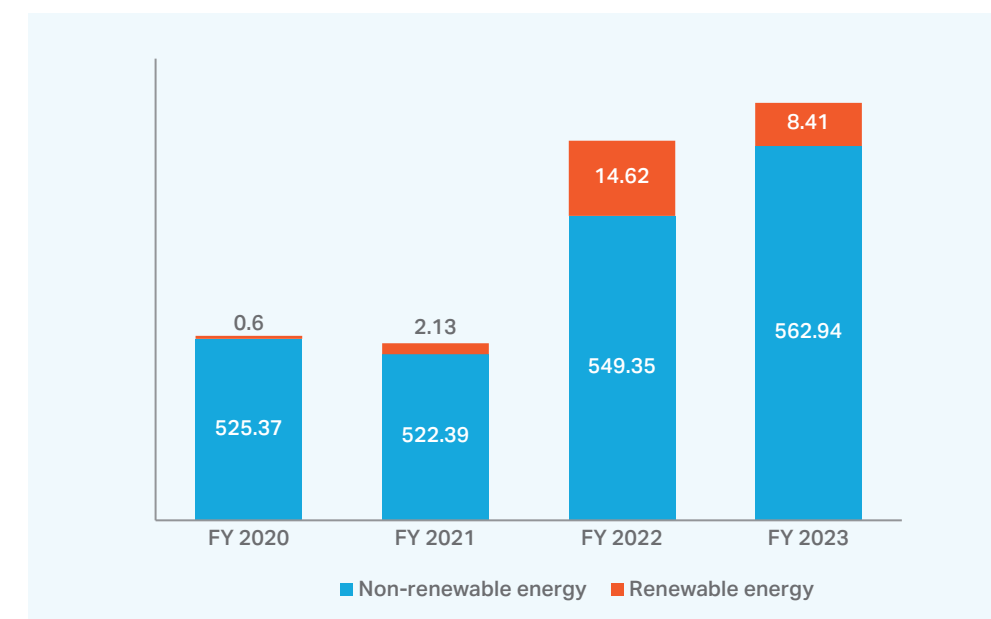Vedanta realized early that a shift towards greater sustainability offers a rare chance to break out of the box, and to imagine and innovate along unconventional tracks. In the process, we would gain competitive advantage, build brand distinctiveness and gain a price premium too. As a market leader, we gladly took on the role of product stewardship that was required.

Our aluminium segment offered some exciting possibilities. Given the traditionally high carbon footprint of alumina processing, the potential for making significant impact was very high. In FY 2022, we launched our first line of green aluminium products, under the brandname of Restora. Positioned as a low carbon aluminium brand, Restora offers two distinct product lines – Restora featuring low carbon aluminium and Restora Ultra, featuring ultra-low carbon aluminium.

The unique quality of these products is their low GHG emissions intensity, which is much below the global threshold of 4 TCO_2e tonne of aluminium. Restora is produced at our state-of-the-art aluminium smelters and uses renewable energy in its production processes. Additionally, Restora Ultra is crafted from recovered aluminium and is infused with the qualities of the virgin metal through the use of cutting edge technology. Our collaboration with Runaya Refining, a revolutionary Indian manufacturing startup dedicated to resource sector innovations, has given us access to this technology. Restora Ultra boasts an even lower carbon footprint, ranking among the world's most carbon-light aluminium products.

With the launch of the Restora line of products, we have become the first major non-ferrous Indian metals producer to manufacture low carbon primary aluminium. To establish credibility and validate the authenticity of our products as one of the most carbon-light products in the market, the Restora lineup will undergo independent verification by a reputed global assurance firm.

The successful completion of this certification exercise will make it possible for us to take these products across the world, as an alternative for customers who want carbon-light aluminium options. Approximately US $150 million-worth of revenues were generated from the sale of low-carbon aluminium in FY2023.

As an outcome of the Restora manufacturing process, we have become India's largest industrial consumer of renewable energy, with over 2 billion units of renewable energy consumed to produce Restora and Restora Ultra.

Global Standard
4 TCO_2e/ ton
of metal

Restora (low carbon aluminium)
2.36 TCO_2e/ ton
of metal

Restora Ultra (ultra-low carbon aluminium)
0.37 TCO_2e/ ton
of metal

Roadmap to Green Alumina

GHG Intensity reduction curve

20.8% ↓

12.5% ↓

0.6% ↓

3.1% ↓

0.60 tCO$_2$e/T By FY30

Green Alumina

Natural Gas in Calciner & Boilers
- 100% replacement of FO in Cal.
- 30% Cofiring in Boilers
- 0.2 tCO$_2$e/T

Biomass Cofiring in Boilers
- 3.5% by FY24
- 20% by FY30
- 0.12 tCO$_2$e/T

10MW Hybrid Power Plant
- 55% Utilization factor
- Partnered with Sterlite Grid
- 0.01 tCO$_2$e/T

Energy Conservation Projects
- Plant energy reduction
- 1% every year
- 0.03 tCO$_2$e/T

GHG Intensity 0.96 tCO$_2$e/T

Our copper business too has been actively exploring avenues to produce low carbon copper. During FY 2022, we conducted a successful pilot programme, producing 3,000 MT of copper products from scrap and recycled copper. Encouraged by these results, we have ambitious plans to substantially scale up production of this low-carbon product line in the future.

Product Green Copper from Sterlite Copper, Fujairah

Total Produced (MT) in FY23
2,780
(4.15% of total production)

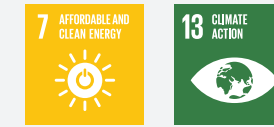### Decarbonization of alumina refinery and transitioning to green alumina manufacture

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

To achieve our goal of reducing overall GHG emissions we are first transitioning our most emission-intensive production lines to greener energy sources. Our alumina refinery at Lanjigarh is making this shift along with building capabilities for the production of Green Alumina.

Making this shift involves a comprehensive approach covering CO$_2$ emissions reduction, transitioning to more sustainable practices and also annually decreasing specific energy consumption by 1%. At the operational level, this means reducing specific steam and fuel oil consumption, specific electrical energy reduction, and specific greenhouse gas emissions reduction. This is being done by optimizing processes, implementing energy-efficient technologies, and exploring alternative energy sources. The cumulative impact of all these measures is expected to significantly bring down the environmental footprint of the alumina refinery.

Additionally, efforts are focused on improving the station heat rate in the Combined Gas and Power Plants (CGPP) associated with the refinery. By upgrading heat recovery systems, optimizing combustion processes, and enhancing overall plant efficiency, the goal is to maximize energy generation while minimizing emissions and waste. Further, auxiliary consumption in CGPP is also targeted for reduction.

In FY 2022-23, significant progress was achieved towards improving energy efficiency and sustainability. More than 3,200 LED lights were installed during the year, accompanied by the implementation of more than 5 Variable Frequency Drives (VFDs), and the adoption of Advanced Process Control (APC) systems in key units. Additionally, measures like increased net liquor productivity, implementation of an Acid Wash system, reduction in coal consumption, biomass firing in boilers, green power import, and a decrease in specific energy consumption to 7.16 GJ/T were also accomplished, demonstrating a strong frontline commitment to energy efficiency and environmental sustainability.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Graphitized cathode installation in smelter leads to reduction in GHG emission intensity

7 AFFORDABLE AND CLEAN ENERGY **13 CLIMATE ACTION**

This project aims at reducing GHG emissions resulting from higher power consumption in the smelter. In FY21, the power consumption was 14,048 kWh per metric ton of aluminium (MT-Al), contributing to a baseline GHG emission of 17.46 TCO_2e/MT-Al. In order to reduce these emissions, graphitized cathode installation was implemented in the potline.

These installations have resulted in reduction in AC power consumption. From the earlier 14,048 kWh/MT-Al of consumption, post installation of the cathode the needle moved to 13,782 kWh/MT-Al, which is a 1.8% decrease with a commensurate drop in the GHG emissions from the smelter.

The initial investment made totalled INR 3200 million and has resulted in total GHG emission reduction of 0.26 TCO_2e/MT-Al achieved till date. A further reduction of 0.02 TCO_2e/MT-Al is expected over the next six months. Our future plans for further reducing the emissions intensity include new technology in cathode lining to reduce energy consumption beyond the 100% graphitization, identifying energy efficiency improve opportunities, and aiming for 995 MW of green power usage by FY30. These concerted steps will accelerate our journey towards becoming a Net Zero organization.

India's 1st BEV (Battery Electric Vehicle) in Underground Mine

13 CLIMATE ACTION

Hindustan Zinc Ltd. (HZL), a subsidiary of Vedanta Limited, introduced India's first Battery Electric Vehicle (BEV) in the underground mining operations at Sindesar Khurd Mine as an imperative to address emissions from the underground mining fleet and optimize financial expenditures on maintenance. Deployment of a Battery Electric Vehicle for the underground mine is a part of Vedanta's on – going vision to decarbonize our operations in a bid to lower the emissions caused by the regular diesel operated mine vehicles. The project is first of its kind in the underground mining operatuions all over India – where a battery-operated vehicle is being used for underground mining.

At its core, the project sought to decarbonize operations by replacing regular diesel-operated mine vehicles with environmentally-friendly alternatives. In a first-of-its-kind initiative in the Indian mining sector, SK Mine has commissioned Normet Agitator SmartDrive EV in its underground mining operations. The batterypowered service equipment will help decarbonise and improve environmental sustainability in the mining industry. Further, two more BEVs – Normet SmartDrive Spraymec EV and Normet SmartDrive Charmec EV – are queued for commissioning at SKM after due approval from DGMS.

Moving forward, we aspire to achieve carbon neutrality by progressively decarbonizing our mining fleet across various sites and operations.

Vedanta's EV Policy: Propellant towards a carbon-neutral horizon

In a resounding commitment to sustainability and green mobility, Vedanta has introduced an Electric Vehicle (EV) policy for its workforce. This visionary initiative is set to redefine our carbon footprint by encouraging employees to transition to electric vehicles.

The newly launched EV policy serves as a vital catalyst in attaining the objective of decarbonizing 100% of our light motor vehicles fleet by 2030. Under this commitment, we extend concessions that are both inspiring and far-reaching, with incentives ranging from 30% to 50% for the purchase of electric 4-wheelers and 2-wheelers across various employee grades.

Sustainable Transportation Solutions at CAIRN

Cairn India as part of its emission reduction initiatives, has implemented a sustainable transportation solution for its employees and their families since November 2022. The company has partnered with a cab service provider to offer sustainable transportation for their employees and their families. With over 4,500 rides taken till May 2023, the initiative has helped to save approximately 3.5 tonnes of emissions.

The service, allows employees to book cabs on a self-service basis, with a dedicated kiosk within the ASF office. The service has other attractive features too to draw in more users, with benefits like corporate discounts, preferential booking slots, carbon-saving digital certificates, zero cancellation fees, fair pricing, courteous drivers, safe rides for female employees, and easy reimbursement, all on offer.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Aim 5

Achieving net water positivity by 2030

Key Material Issues
Water management

6 CLEAN WATER AND SANITATION

Water is a key resource for our business and ensuring water sustainability is a strategic priority for us. Since metals production and processing is water intensive our operations require regular supplies of significant volumes of water. Assuring access to reliable water sources is thus essential for continuous operations. Water scarcity can severely disrupt our production commitments, supply chains and ultimately, our profitability. On the other hand, judicious use and management of shared water resources is equally vital, as situations of conflict can negatively affect our Social Licence to Operate within the local community.

One (HZL) of our four (HZL,IOB, Cairn and BMM) water positive operations is located in water-stressed areas and in coastal regions, highlighting the need for conservation, efficient water use, recycling, responsible water treatment and discharge. We follow a comprehensive and holistic approach to water management with the intent of promoting long-term conservation, replenishment and self-reliance. Thus, our water management practices involve using less water-intensive technologies, embedding circularity, ensuring water security and replenishing water in watersheds and other community sources.

Efficient water management can lead to significant competitive advantage for the company given the importance of this resource as an input. We aim to be self-reliant in terms of our water demand and are building our capabilities through the implementation of water conservation measures, by optimizing water usage, recycling water within operations to ultimately reduce the reliance on freshwater sources. Greater control over water supplies and the minimal use of freshwater from external sources has many advantages in terms of

lower operational expenses, greater resilience to sudden setbacks and increased buy-in from the community.

To meet our sustainability goal of becoming water positive[1] by 2030, Vedanta is focusing on localized solutions. The importance that we attach to water management is addressed through our corporate level water policy, which is applicable to all our operations, businesses, and subsidiaries, with particular focus on those in water stressed areas.
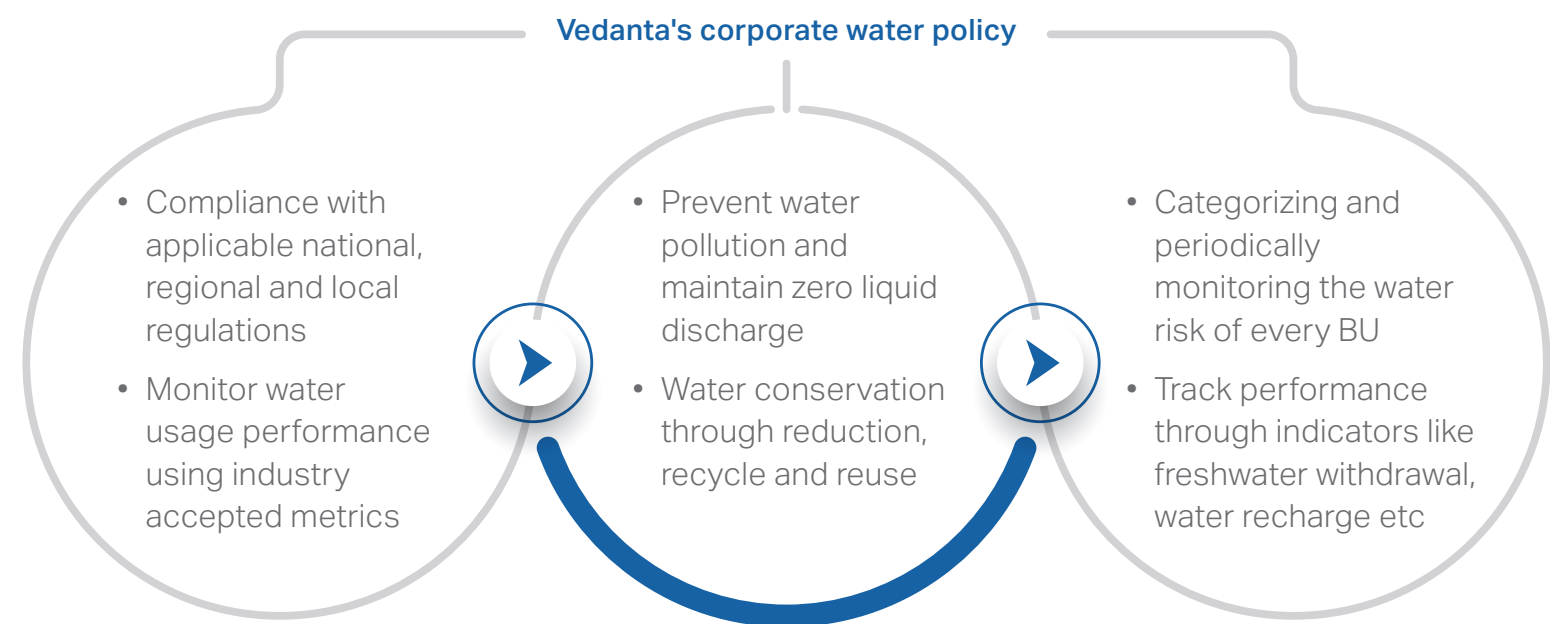
In FY 23, we saw a 11.32% reduction in our overall freshwater consumption against the 2021 baseline. Our water positivity ratio improved to 0.62 in comparison to 0.51 achieved in FY 22.

Vedanta's corporate water policy

- Compliance with applicable national, regional and local regulations
- Monitor water usage performance using industry accepted metrics

- Prevent water pollution and maintain zero liquid discharge
- Water conservation through reduction, recycle and reuse

- Categorizing and periodically monitoring the water risk of every BU
- Track performance through indicators like freshwater withdrawal, water recharge etc

[1] Vedanta defines net water positive impact as the ratio of Water Credit (water given back to natural water bodies) and Water Debit (water taken from natural water bodies). If the ratio is >1, then the site is said to be water positive.

Water Risk Assessment

Vedanta takes a science-based approach to water management at each of our operational sites and the process involves water risk assessment, risk categorization, targeted solution identification and implementation followed by periodic performance reviews. The water-related business risk assessment is undertaken at the catchment level, over the lifecycle of an asset covering, but not limited to, physical, regulatory, environmental/ ecological, social/reputational, and economic risks to the business.

The baseline operational and basin water risk assessment for businesses and communities is conducted using a suite of tools from World Business Council for Sustainable Development (WBCSD) comprising of Water Risk Filter, India Water Tool Version 4 (IWT 4.0), and also WRI's Aqueduct Water Tool.

The business units are categorized based on their overall water risk. Internal Risk Assessment of the business units includes comparing the incoming risk likelihood score with the outcomes from the Water Risk Monetizer tool. Basin-level value chain water risk assessments are conducted to quantify inherent water risks, along with local/operational assessments to measure residual water risks. By combining basin and operational risk data, we identify the sites with the highest risk, residual risks, and prioritise on shared water challenges.

Business Unit	Basin Risk					Operational Risk				
	Very Low Risk	Low Risk	Medium Risk	High Risk	Total Sites	Very Low Risk	Low Risk	Medium Risk	High Risk	Total Sites
Oil and Gas	-	-	-	7	7	2	5	-	-	7
Aluminium	-	-	2	1	3	-	3	-	-	3
Iron and Steel	-	-	6	3	9	1	8	-	-	9
Power TSPL	-	-	-	1	1	-	1	-	-	1
Sterlite Copper	-	-	3	1	4	1	3	-	-	4
Zinc	-	-	-	9	9	-	6	2	1	9
Total	-	-	11	22	33	4	26	2	1	33

● Very Low Risk　● Low Risk　● Medium Risk　● High Risk

Water Risk management

All water-related issues come under direct Board-level oversight. The Board's ESG Committee regularly reviews the water-related status of our sites, going through assessments and performance metrics, evaluating future scenarios and taking decisions to ensure stability and consistency of water resources. The Group Head – HSE & Sustainability updates the Board ESG Committee on long-term actions that the company is taking to better manage the evolving impact of climate change on our water supplies. The Board members are also informed about the progress on water management as a part of the overview provided on the Group's ESG performance.

The Vedanta Water Management Standard seeks to standardize water management practices across the organization in order to safeguard water resources over the lifecycle of an asset. By doing so, comparability and parity in assessment is ensured, leading to more effective remedial measures being designed and implemented.

Our stakeholder engagement standard, helps us to identify and prioritize stakeholders who are impacted by our business operations or vice versa. Given that many of our operational sites are situated in water-stressed regions, we maintain a systematic approach towards tracking and monitoring existing stakeholder concerns around water and the mitigation measures being taken. This approach helps us to address water-related concerns proactively, take steps towards sustainable water management and collaborate with our stakeholders in ensuring a water-secure future for all.

Another critical aspect of our water management strategy is to review water-related risks through the lens of regulatory changes and potential changes in price structure. Aspects like water tariffs, withdrawal restrictions, discharge standards, discharge tariffs are independently evaluated to assess the extent and likelihood of their impact on operations and how they can affect water availability and viability.

Further, each of our operational sites have a Water Management Plan (WMP). These plans are updated every year in conjunction with the annual value of water balance assessed at each individual site.

Water-Related Regulatory Changes

Regulatory changes at the local level

All Vedanta companies comply with all applicable local, regional and national-level laws on water management. Our facilities adhere to the water withdrawal limits set by local authorities. We have also put in place stringent policies that support the responsible and sustainable use of resources at our owned and/or managed operations.

Estimating and preparing for potential regulatory changes at the local level

Water conditions are specific to every region and influenced by local conditions like topography, average rainfall, population density and so on. For this reason, our water management plans consider the specific water conditions of each location where we operate. We also closely track water consumption patterns at our individual sites, coupled with periodic risk assessment studies to devise our location-specific water management plans.

Approximately 66.66% of our operational sites are situated in water-stressed areas. In these regions, we anticipate stricter regulations around water usage by businesses, over the medium- to long-term, considering the likelihood of water shortage and other issues like salt-water intrusion. To effectively address such situations, we have implemented several measures that promote extensive water conservation, including rainwater harvesting, water recycling and reuse; implementation of zero discharge at all sites; and facilitation of participatory water monitoring with affected communities for better management of potential conflicts related to water use

across the project lifecycle. Along with these measures, we are also deploying high-technology solutions to accelerate water and resource conservation.

Understanding and preparing for high-risk situations

Through scenario analysis using RCP 4.5 and 8.5, we have identified several high-order potential risks that can affect our business.

- In the RCP 4.5 scenario, we anticipate water scarcity at our BALCO and Cairn Oil & Gas units. Our IOB units face a high risk of flooding over the next decade. Vedanta Aluminium at Lanjigarh and Jharsuguda, in Odisha, already face cyclone risk, which is likely to get accentuated in the future, given the increasing risk of cyclones over the Bay of Bengal.

- Under the worst-case scenario (RCP 8.5), many of our businesses, including Sterlite Copper (at Thoothukudi, Tamil Nadu), Talwandi Sabo Power Ltd (TSPL) at Mansa, Punjab ; BALCO at Korba, Chattisgarh, and Cairn Oil and Gas, will face extreme climate risks, including water stress and scarcity. Consequently, we anticipate a potential increase in local and national reporting requirements on water consumption and withdrawal by our operations, in the near future. Vedanta will also experience very high temperatures at TSPL and at our units in Namibia and South Africa. To proactively prepare for the future, Vedanta and its subsidiaries are already measuring their water use and consumption and implementing initiatives towards water conservation.

Systematic tracking and monitoring of waters level

Our operations are guided by an EMS system and our Water Management TS, which provide a clear process for tracking and monitoring water availability at the local level. We ensure responsible water management by measuring, monitoring, and reporting the volume of water withdrawn, discharged, and consumed, as well as, our current water intensity. Daily data required for preparing each of these metrics and others, are mandatorily collected by our BUs, in compliance with our corporate and legal requirements, as well as for the GRI Mining and Metals Performance Indicators. These performance metrics are regularly tracked and reported to management by our Water Community of Practice.

Other systematic tracking exercises include installation of water meters at our sources to record daily water quantity KPIs. Additionally, our water managers also conduct an internal water audit every year, covering aspects of water withdrawals. Annual external water audits are also carried out as a part of ISO 14001, GRI, and VSAP compliance needs.

Water Withdrawal and Consumption

Untreated water discharged from mining operations can adversely impact the environment and human health. Inappropriate disposal of wastewater, contaminated water, or pollutants can pollute local water bodies, degrade water quality, and harm aquatic ecosystems. These impacts can, in turn, affect the livelihoods and well-being of communities that depend on these water resources for their daily needs.

We take a dual approach to the water we use. We follow the principle of zero liquid discharge at all our sites, and treat and recycle all the wastewater that we produce. By doing so, we have been able to progressively reduce our freshwater withdrawals. Our rate of recycling has improved by 2% in FY2023 as compared to last year. For our new projects, we are prioritizing on minimum freshwater use and building in recycling and reuse capabilities right from the start, while also making innovative use of other supplementary sources. Among the projects in our pipeline, 77% are focused on reusing wastewater in operations. The remaining 23% plan to use multiple sources like municipal wastewater, saline water, and rainwater harvesting.

Water withdrawal and discharge (m³)

Water withdrawal	2020	2021	2022	2023
Surface water (A)	150,631,744	152,751,636	152,411,149	146,449,646
River, lake, pond, etc (i)	150,517,963	152,377,640	152,115,631	145,305,251
Rain Water (ii)	113,781	373,996	295,518	1,144,395
Ground Water (B)	19,201,348	16,554,124	17,432,334	17,174,125
Third-party Water (C)	9,149,419	7,474,566	9,814,121	12,195,567
STP Treated Water (iii)	7,036,647	7,180,873	9,590,120	8,568,609
Municipal Water/Water through Tanker (iv)	2,112,772	293,693	224,001	3,626,958
Produced Water (D)	37,451,655	40,564,901	40,775,601	37,109,961
Seawater (E)	-	-	-	-
Total Water Withdrawn (F=A+B+C+D+E)	216,434,166	217,345,227	220,433,205	212,929,299
Discharged Water (G)	8,785,462	4,663,635	6,023,953	20,171,667
Total Net Freshwater Consumption (H=A(i) + B + C(iv) - G)	163,046,621	164,561,822	163,748,013	145,934,667

Water consumed and recycled (million m³)

	Fresh Water Consumption	Recycled/rused water	Total	Recycled %
FY 2023	187.81	77.70	265.51 million m³	29.26%
FY 2022	194.44	85.78	280.22 million m³	30.61%
FY 2021	187.35	83.05	270.40 million m³	30.71%
FY 2020	177.20	73.90	251.10 million m³	29.43%

Total Water Consumption

■ Fresh Water Consumption ■ Recycled/rused water
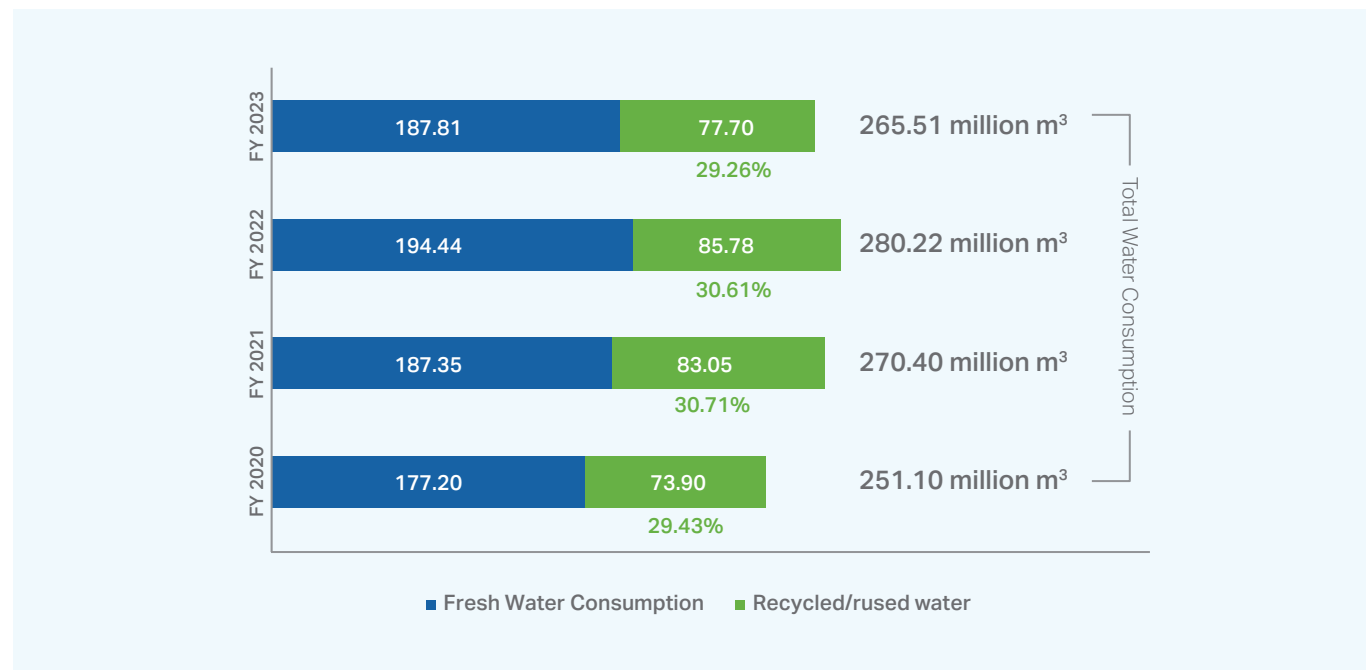
Strategic Water Management: Innovations in Water Conservation and Sustainability

6 CLEAN WATER AND SANITATION

Hindustan Zinc Limited (HZL)

Its operations in the water scarce state of Rajasthan. The problem of water stress, and the need for active water management is thus more severe.

HZL has adopted the approach of conserving fresh water with a strategic focus on the reduction of water drawn at source, through zero liquid discharge (ZLD), effective recycling and reuse, utilization of alternative sources, and replenishment of water in watersheds through various innovative measures. Initiatives like rainwater harvesting, storing water during the wet season and utilizing it during the dry season are some of the proactive measures underway to reduce overall water withdrawal.

HZL also has a water treatment plant to manage its wastewater and ensure zero liquid discharge. By adopting this approach of water stewardship, HZL is not only securing its own water supplies and ensuring business continuity, it is also serving as a role model for both civil society and businesses in the region on how water can be managed judiciously to create conditions of water security in water scarce regions.

Furthermore, HZL has set high standards for itself. It aims to become a five times water-positive company and reduce 25% freshwater consumption by 2025.

Black Mountain Mine (BMM), South Africa

At Vedanta Zinc International's operations at Northern Cape, in South Africa, water is supplied from the Orange River. South Africa's National Water Resource Strategy proposes constructing several dams on the Orange River and this could reduce the supply of water available to our plant.

To tackle imminent problems, Vedanta Zinc International has identified the following key projects – the installation of water recycling plants at BMM to reduce water usage; and the upgrading of water balances to allow the deployment of an online water management system through which water performance can be managed.

Water stewardship pledge at Vedanta Zinc International

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Jharsuguda smelter: A national benchmark in water efficiency

6 CLEAN WATER AND SANITATION

Vedanta Aluminium's Smelter-1 located at Jharsuguda, Odisha, has emerged as a national benchmark in water efficiency among aluminium smelters in India. Through various initiatives and investments, the smelter has successfully minimized its water footprint, maximized water reutilization, and reduced its specific water consumption.

The milestone has been achieved through several initiatives, and these are:

- Installation of storm water utilization system to increase usage of recycle water

√ Benefits achieved: Reduction of freshwater consumption

√ Impact: 0.03 m³/MT

- ETP sandbed replacement to increase ETP efficiency

√ Benefits achieved: Increase in recycling water percentage

√ Impact: 0.02 m³/MT

- Revamping of dual media filter for STP leading to increase in amount of water recycled

√ Impact: 0.01 m³/MT

The cumulative savings are to the tune of 0.06 m³/MT of water and has positively contributed to the overall water efficiency of the smelter.

- -

Magnetic float valve installed in all end users' Sintex tanks to minimise water wastage

- -

Fire Water line placed above ground to minimize the fire water leakages

Future plans

Given the high carbon footprint of smelters, the water wins achieved at Jharsuguda come as a beacon of hope for our business and the industry at large. We have ambitious plans of amplifying and optimizing these positive results to drive even greater impact. We intend further increasing the rainwater utilization through the installation of a lift pump in the SWPH Reservoir, with a target of achieving 0.04 m³/MT savings. Additionally, plans are underway to install Reverse Osmosis (RO) and Multiple Effect Evaporator (MEE) systems with a capacity of 200 cubic meters per hour (m³/HR). In the short term, the focus is on minimizing firewater leakages by implementing above-ground firewater lines.

Aim 6

Innovating for a greener business model

Key Material Issues

Waste management, Tailings management, Air emissions & quality, Biodiversity & ecosystems

The world relies on the metals and mining industry to provide inputs for its progress and help it transition to more carbon-light ways of living. At Vedanta, we are fully cognizant of the responsibilities that we carry. The act of mining affects the environment, often leading to the release of pollutants. In biodiverse areas, mining can lead to habitat destruction, biodiversity loss and displacement of plant and animal species. These impacts of our business need to minimized and, to the extent possible, reversed. We balance these conflicts through our business model which seeks to optimize what we do and restore what we harm – by making the most out of waste, through end-to-end tailings management, and by implementing the principles of No-Net-Loss (NNL) in areas of biodiversity loss. Our constant attempt is to change the commonly-held negative associations about mining through our actions, and to make our activities compatible with the functioning of natural ecosystems and communities.

Waste Management

Our waste management framework follows the principles of minimization, optimization and circularity, to create low-waste trail operations, generate the maximum benefit from production processes, significantly lower operational costs and comply with national and international waste management regulations.

In adherence with the principle of minimization, our attempt is to produce less waste by volume and to also reduce its toxicity. This is followed by recovery and recycling (either through our own processes or by authorized recyclers), which leads to minimal waste for disposal to landfill or by incineration. We produce a wide variety of waste streams across our sites and these include:

- Hazardous waste

- Non-hazardous waste

- High-volume low toxicity waste (HVLT)

- Acid Rock Drainage (ARD)

- Tailings

Waste management principles founded on generating less waste

Reduce waste at source

Reduce toxicity through treatment

Recover waste for reuse

Recycle waste for reuse

Minimum waste to landfill

Effective waste management practices leads to cost savings. By reducing waste generation, optimizing processes, and promoting recycling, the company minimizes waste disposal costs, raw material expenses, and energy consumption. Implementation of efficient waste management practices enhances operational efficiencies for us. By effectively managing waste and through proper treatment and disposal of hazardous wastes, we also avoid fines, penalties, and legal liabilities associated with non-compliance.

Our Waste Community of Practice takes the lead in promoting initiatives that minimize waste generation. A large proportion of the waste we produce consists of mineral-based materials, like tailings, overburden and waste rock. Tailings are the materials left over after removing the usable part of the ore, while overburden consists of waste rock or other overlying materials. Tailings carry hazards of toxicity and need to be stored under strictly defined conditions. We discuss this area later in this section.

Hazardous Waste

The hazardous waste generated at our sites includes. Items like waste refractories, spent pot lining, and residual sludge from smelters.

The enduring philosophy underlying our waste management activities is to cause zero harm to the external environment and the people, flora and fauna dependent on it and we observe all necessary measures to realise this objective. Management of our highly diverse waste streams are done in adherence with the Waste Management Standards and Guidance Notes, which have been developed in alignment with the guidelines set by International Council on Mining and Metals (ICMM) and IFC (International Finance Corporation) Performance Standards.

The secure storage of waste, especially mineral waste and tailings, is a high priority area, as both these categories carry high potential for harm.

From Waste to Wealth

Our Waste to Wealth philosophy pivots around our focus on minimizing waste to landfill and integrating greater circularity into our production processes. Aligned with our ESG vision, we are working towards becoming a "Zero Waste" organization, and several initiatives are underway to completely utilize mineral and non-mineral waste.

Recycling mineral wastes

• The use of Jarosite, a common ore processing waste, is being extended to multiple applications with the help of in-house technologies. In FY 2023, close to 33% of the jarosite generated was used for various purposes like constructing roads, and also creating enhanced use in cement industries.

• Jarofix, produced from jarosite, lime and cement, is a commonly used construction material and we have a target of utilizing 0.5 million tonnes. During the reporting year, 140,820 MT of jarofix was utilized for flyover construction and 111,226 MT in the cement industry.

• Another upcoming initiative involves diverting the entire slag from our smelters to the cement industry. Currently, we are exploring technology options that will render this slag suitable for various uses in the cement industry.

• We are partnering with research institutions to develop options for utilizing jarosite as a plaster, and a pilot is currently underway.

• Additionally, we have initiated an R&D project to explore the utilization of red mud, a waste material produced during the processing of bauxite into alumina. This project aims to find innovative ways to repurpose and make productive use of red mud, further consolidating our circularity initiatives. In FY 2023 we were able to utilise 6% of red mud we produced.

Hazardous waste (metric tonnes)

	2020	2021	2022	2023
Total hazardous waste recycled/ reused	406,242	382,934	455,808	482,138
Total hazardous waste disposed	67,987	47,847	69,246	50,065
Hazardous waste landfilled	40,247	44,873	68,571	46,477
Hazardous waste incinerate	1,607	1,017	675	310.41
Hazardous waste otherwise disposed	26,133	1,957	–	3,277

69

Management of Non-Hazardous Waste

Non-hazardous waste covers general waste like paper, plastic, wood, scrap metals and food waste. Given our commitment towards zero waste to landfill, we aim to utilize all non-hazardous waste.
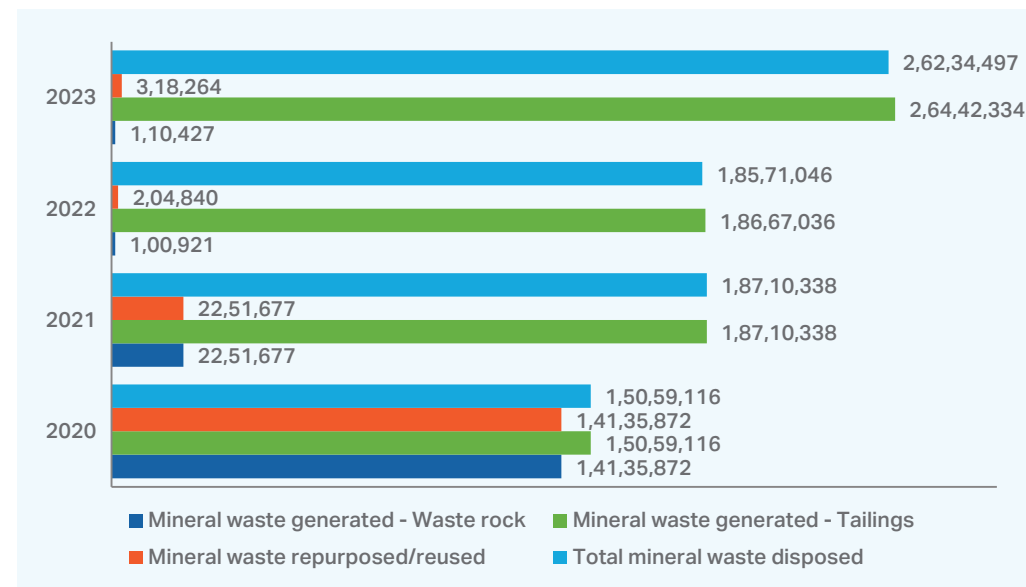
TSPL follows a strict 'No Single-Use Plastic' policy and has received Single Use Plastic Free certification from the Confederation of Indian Industry (CII).

As a part of the certification process, verification is done by CII, under the provisions of the Plastics-use Protocol: Verification and Certification (1.0). Cairn has received a similar certification from CII.

HVLT Waste Disposal (metric tonnes)

Year	Total waste disposed	Total waste recycled/reused
2023	37,58,432	2,99,30,371
2022	31,08,569	1,85,94,629
2021	30,17,823	1,68,43,075
2020	26,14,430	1,33,25,785

Mineral Waste Disposal (metric tonnes)

2023: 2,62,34,497 / 3,18,264 / 2,64,42,334 / 1,10,427
2022: 1,85,71,046 / 2,04,840 / 1,86,67,036 / 1,00,921
2021: 1,87,10,338 / 22,51,677 / 1,87,10,338 / 22,51,677
2020: 1,50,59,116 / 1,41,35,872 / 1,50,59,116 / 1,41,35,872

Legend: Mineral waste generated - Waste rock | Mineral waste generated - Tailings | Mineral waste repurposed/reused | Total mineral waste disposed

High Volume Low Toxicity Waste

Our operations generate High Volume Low Toxicity Waste (HVLT) like fly ash, bottom ash, red mud (aluminium refinery waste), jarosite (from zinc smelting), slag, lime grit (process residues from smelters and aluminium refineries), and phosphogypsum (phosphoric acid plant).

High-Volume-Low-Toxicity Waste

	FY 2021			FY 2022			FY 2023		
	Generated (Million MT)	Recycled/Reused (Million MT)	% Recycled	Generated (Million MT)	Recycled/Reused (Million MT)	% Recycled	Generated (Million MT)	Recycled/Reused (Million MT)	% Recycled
Fly Ash (*includes Fly ash and Bottom ash)	13.98	15.4	110%	14.54	16.7	115%	13.85	28.2	204%
Slag	1.01	1.15	114%	1.31	1.27	100%	1.35	1.31	96%
Jarosite	0.6	0.15	25%	0.64	0.096	97%	0.63	0.2	33%
Red Mud	2.27	0.13	5.70%	2.51	0.52	15%	2.55	0.15	6%
Lime Grit	-	-	-	0.01	0.012	21%	0.009	0.01	104%
Total HVLT	**17.85**	**16.83**	**94.28%**	**19.01**	**18.6**	**98%**	**18.42**	**29.93**	**162%**

Acid Rock Drainage Management

This condition occurs when mining residue reacts with surface water and shallow subsurface water, to create reactive mineral waste. Acid rock drainage (ARD) is a significant environmental concern for the mining industry, and needs to be handled responsibly. If left in an unstable condition ARD can hinder successful revegetation of mining wastes and cause long-term damage to both surface water and groundwater. Out of the 17 mines under Vedanta's ownership and control, six mines – Kayad, Rampura, Agucha, Zawar, BMM and Gamsberg, exhibit ARD, which is about 35% of our total mines.

We have a Technical Standard on ARD that incorporates industry-leading practices for the scientific and systematic management of ARD and its associated environmental impacts. In all our ARD-affected mines, measures are being implemented in conformance with this technical standard.

Partnering the cement industry's move towards greater circularity

Low carbon cement is leading the green change for the cement sector as this cement alternative offers all the properties of cement without its high carbon footprint. At Vedanta, we have joined hands in accelerating this planet-friendly change by helping to promote circularity for allied industries. In FY 2022-23, Vedanta Aluminium entered into a strategic partnership with Dalmia Cements for the supply of industrial wastes like fly ash and spent pot lining. As a part of this collaboration, approximately 20 rakes of fly ash produced at our thermal power plants in Jharsuguda will be supplied every month, over a period of five years, along with spent pot lining. Spent pot lining (SPL), obtained from the de-lining process of electrolytic pots. SPL can work as an alternate fuel for cement industries during co-processing of waste. Our supply contract for SPL is for a period of three years. Both these inputs will be used at Dalmia Cement's manufacturing units in Odisha, Jharkhand, Meghalaya, and Assam, leading to a truly sustainable manufacturing cycle whereby our industrial wastes will be utilized sustainably. Such sustainable manufacturing significantly reduces carbon trails, by helping to lower the need for natural and mineral resources and decreasing fuel consumption, thereby saving costs. The initiative is also an example of the many ways in which Vedanta is bringing to life its motto of 'Transforming Together' by discovering synergies and acting on them to create a better place for everyone to live in.

Vedanta Aluminium ties up with NHAI to help build greener roads

An extensive use of circularity principles and turning waste to resource underlies our vision of Transforming Together and partnering in India's transition to a low-carbon economy. The several innovative ways in which we are utilizing fly ash – a common by-product of our thermal combustion processes – demonstrates this eloquently. We are actively developing several downstream users for our fly ash waste, and Vedanta Aluminium has recently signed a long-term agreement with the National Highways Authority of India (NHAI) to this end. NHAI will be using our fly ash for embankment construction, as the characteristics of this so-called 'waste' makes it particularly suitable for the purpose. Fly ash is light weight, has a higher California Bearing Ratio (CBR) which makes it strong as a paving material, is easy to handle and offers great stability at slopes, is highly permeable and has low compressibility. These qualities also make it a more durable material for withstanding wide temperature variations. Further fly ash helps to conserve the precious top soil from runoff, which, in turn, helps to conserve the soil quality of adjacent areas.

The reorientation towards making productive use of by-products that have traditionally been viewed as 'waste' shows the shift that we are trying to catalyse. On our journey towards becoming 'zero-waste' such innovative use of overlooked resources will help to build a robust and circular production value chain, with immense benefits to the environment and the planet.

NHAI will be using the fly ash that they procure from us for making roads in Odisha. A greener base for roads carries huge carbon-saving potential, particularly as India expands its infrastructural networks.

Pilot on red mud utilization raises hopes for carbon-light road construction

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Utilizing the waste that we produce, which varies from low to high levels of toxicity, in a manner that is productive and with neutral impact on the environment, is an ongoing priority for us. We regularly collaborate with institutions and organizations that are working on allied objectives. Bayer process, which is used for refining bauxite to produce alumina, generates approximately 3 million metric tonnes (MMT) of red mud annually, posing a significant environmental hazard in terms of soil and water toxicity. Additionally, at our sites there is pre-existing accumulation of around 20 MMT of red mud, which further exacerbates the environmental risk.

Meanwhile for construction of roads, materials like soil and aggregate materials are traditionally used. Due to the high demand for such materials from the construction sector, soil and its aggregates are now severely depleted, and there is a need for finding viable alternatives. To address these different challenges, Vedanta was recently involved in a laboratory-scale study conducted by the CSIR-CRRI (Central Road Research Institute) under which the potential application of red mud as an alternative construction material and structural filler, was explored. The study has been completed and further evaluation is awaited.

If pilot trials prove successful, the potential for utilization of red mud in road construction could reach 1.5 MMT per year. This would not only address the environmental issues associated with red mud accumulation but also provide a sustainable alternative for road construction materials. Achieving the nation's growth ambitions in a carbon-neutral way is essential if India is to meet its Net Zero commitments and through our 'Transforming Together' focus we are collaborating in making this possible.

Sustainable sodium sulphate management helps in cost reduction and waste valorization

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Hindustan Zinc Limited (HZL) is the country's largest zinc producer and operates several large smelters. The zinc production process consists of various stages and different techniques are used as per the output desired. Roasting and leaching are two constituent processes of zinc production, with the removal of iron being an essential part of the production cycle. The jarosite process is the most widely used route for removing iron elements from zinc, and it is deployed in our smelters, with jarosite emerging as the waste byproduct. Our 92000 tonnes-smelter at Debari, near Udaipur in Rajasthan, is a hydrometallurgical zinc smelter and produces High Grade (HG) zinc. In FY 2022-23, this plant faced a problem as it witnessed a cost escalation in the zinc sulfide detector (ZSD) process due to the rising prices of commercial sodium sulphate (Na_2SO_4) which was used in the Jarosite precipitation stage. The ZSD plant uses nearly 12 -13 MT/day of Na_2SO_4. Clearly, a cost-effective alternative had to be found else profitability would be significantly affected.

Though the challenge pertained to operating costs, the Plant Operations team decided to take a comprehensive approach that would address other priorities too. The Debari smelter has a 3000 KLD Zero Liquid Discharge plant for treatment of effluents. The ZLD plant helps to meet our zero-waste objective. Further, the sludge generated from the treatment goes through a crystallization process, and Na_2SO_4 crystals are generated as a byproduct. These internally generated Na_2SO_4 salts now opened up a whole new vista of opportunity as they could be used as a replacement for the commercially procured ones. The substitution would not only help to cut down on operational costs, it would significantly further the waste-to-wealth objective that underpins every aspect of our manufacturing operations. Another crucial advantage was the substantial reduction in hazardous waste storage and maintenance costs. The prospect of substituting the commercial procured Na_2SO_4 crystals with the internally generated ones carried a potential for 50% replacement, which meant a sharp increase in the internal production of these salts. This would parallelly reduce the volume of hazardous waste that we are liable to manage, handle and store as per Hazardous Waste Management Rules, 2016. Clearly there were several high-impact gains that would originate from this waste valorization initiative.

The following steps were involved before a full-fledged transition to in-house Na_2SO_4 crystals-based Jarosite precipitation could be done.

- First, a study was conducted to assess the quality of the internally produced Na_2SO_4 crystals and their suitability for use in the Jarosite precipitation process.

- Next, experimental trials were carried out to verify the efficacy of Jarosite precipitation with these crystals.

- Plant trials were then initiated to validate the findings on a larger scale.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

- Financial validation through a cost-benefit analysis (CBA) was performed to determine the economic viability of the process.
- Finally, once all the evaluation parameters were satisfied the project was rolled out for implementation within a timeframe of six months.

The success of this waste valorization initiative highlights the immense potential that innovative 'waste' recovery and reuse carries in terms of resource conservation, cost control, business profitability and reduced industrial footprint.

The initiative has seen a steady increase in the replacement of commercially procured Na_2SO_4 salts with internally produced ones, achieving a 58% utilization rate by September and a projected cost savings of Rs 24.60 million over a six-month timeframe.

Internal Utilization of RO ZLD Salt

Na₂SO₄ salt consumption
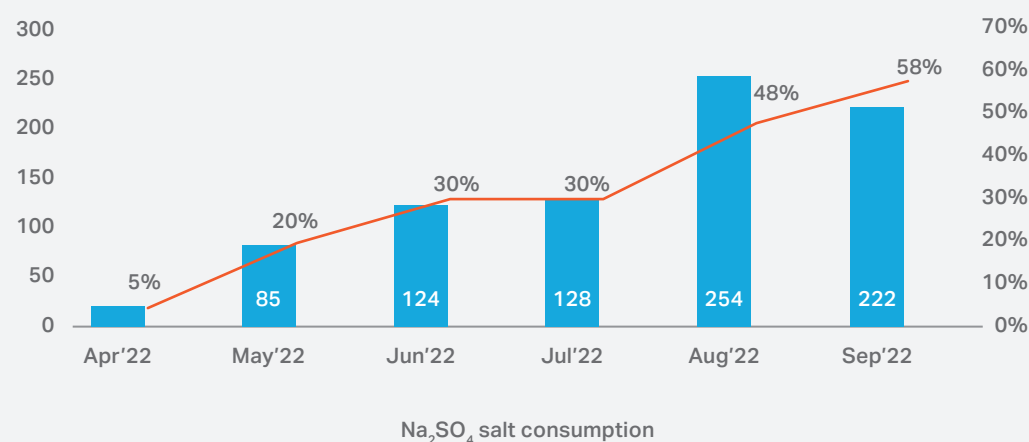
Tailings Management

Tailings are the inevitable byproducts of mining and the storage and management of these waste streams complement the mining process. Tailings are toxic and need to be stored in secure areas, in compliance with regulations. For the mining industry worldwide, tailings management poses significant social, safety, and environmental challenges across the entire lifecycle of mining operations. Tailings that are left unsecured can leach contaminants into nearby water bodies, resulting in water pollution. Such pollution can harm aquatic ecosystems, and negatively impact the flora and fauna that relies on these ecosystems.

Further, the tailings storage facility needs to be well fortified as any breaches or breakdowns can prove to be catastrophic, resulting in large-scale environmental disasters.

Tailings management is subject to various environmental regulations and failure to comply with these can result in penalties, or even the suspension of mining operations. It is thus clear, that the management of tailings and their storage is of utmost importance and requires our complete attention.

Tailings Management Facilities (TMF) are extremely critical parts of the metals and mining processing cycle and failure to manage them properly, and as stipulated by law, can pose several forms of risk to the company – from social and environmental, to economic and reputational. A TMF failure would mean the release of toxic residue into the surrounding environment, habitat and/or ecosystems, leading to significant loss of life, extensive damage to infrastructure and the environment. This can lead to loss of flora and fauna, along with contamination of rivers and other ecosystems. Such impact would be long-term and extensive, thus difficult to control and treat. At Vedanta, we remain fully cognizant of these grave risks and are deeply committed to implementing a stringent framework for meticulous tailings management.

Our management approach includes:
- Comprehensive risk assessments for scoping, assessing and outlining the different kinds of risks and their solutions;
- Deployment of robust engineering and design practices to ensure that the structures that house the tailings are strong, secure and weather and region-appropriate;
- Conducting of regular monitoring and inspections, and preparation of detailed emergency response plans. Incorporation of industry best practices and other high-tech features to enhance the safety and resilience of our TMFs.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Assessment of risks associated with Tailings Storage Facilities

During FY 2023, we completed a comprehensive assessment of all risks associated with the storage and management of tailings at all our sites. At the site-level, this involved evaluating and analysing all potential risks through review of the existing, site-level Tailings Management System (TMS), taking into account the specific requirements outlined in the Global Industry Standard on Tailings Management (GISTM). The key aspects of the review relate to the 6 broad areas and 15 principles related to the safe design and development, operation, emergency preparedness and closure of TSF's as defined in the GISTM. The desktop review then assessed the extent of implementation of the TMS at the site against the specific requirements of the principles of the GISTM. Each requirement was then assigned scores on a scale of I (low) to IV (high).

After the successful completion of this standalone risk assessment, we are better able to align our TMS with the GISTM methodology. Certain gaps have been exposed as a result of this exercise, and to help individual sites improve the TMS, certain actions have been prioritized. Given below is the priority ranking that will be followed to action the changes required:

- **Critical:** Actions should be implemented with urgency and outside of the usual business planning cycle. Completion within 90 days and with corporate oversight involved.

- **High:** Actions should be implemented within the next 6 months.

- **Moderate:** Actions should be reviewed by the EoR and implementation coordinated by the RTDE, within the business planning cycle. Implementation should occur within the next 12 months.

- **Low:** Actions should be reviewed by the EoR and implementation coordinated by the RTDE, within the business planning cycle. Implementation should occur within the next 24 months.

In addition to this standalone risk assessment, we also conduct regular audits of all our tailing dams in conformance with the performance standards established under the Vedanta Standard.

Managing slurry water for reuse and improved tailings compaction

Tailing slurry consists of about 50-55% water, and at Hindustan Zinc Ltd, the dry tailing plant system allows the filtration process to lower the water content to 16%. The extracted water is then circulated into the milling operation, therefore reducing overall water consumption. The remaining slurry is then used for compaction and plantation.

Tailings Risk Potential FY 2023

	Total Number of Facilities	Number of facilities categorized as "high risk potential" ("extreme" and "very high")
Active Facilities	16	1
Inactive Facilities (including facilities in care maintenance or closed)	9	0
Planned Facilities	0	0

Zero TSF failures (due to leakage, overflow, etc) in the past four years

Biodiversity Management

The frequency of extreme climate events like heat waves, wildfires, severe storms and floods are directly related to accelerating biodiversity loss and ecosystem degradation. As such events cause widespread destruction and loss of lives, the world is still grappling to cope and find solutions, while simultaneously trying to prevent further deterioration of existing natural ecosystems. Against this backdrop, the pressures on the mining industry to visibly minimize its environmental impacts is even greater.

Mining as an activity causes habitat destruction and disruption, leading to biodiversity loss and displacement of plant and animal species. Its principal activities consist of ground excavation, ore extraction and processing, causing disintegration of existing land tracts and dependent habitats and the potential release of pollutants into soil and water bodies. These impacts of economic activity, unless mitigated in a

planned and scientific manner, can cause long-term damage to community groups in the vicinity and therefore need to managed with sensitivity and understanding.

Vedanta recognizes its role and responsibilities within the increasingly climate-challenged world and the necessity of acting for the good of all. Human society needs healthy ecosystems for its survival, and so do our operations. Across the 52 sites that we operate, we depend on natural ecosystems to safeguard water supplies, act as a barrier against storm surges in coastal regions, and create liveable conditions for the communities that reside near our operations. Vedanta's long-term growth and aspirations hinge on being a responsible corporate that doesn't denude natural wealth, rather creates a legacy for future generations to benefit from. Our commitment to ensuring No-Net-Loss or Net-Positive-Impact (NNL/NPI) stems from this belief, as we responsibly manage our assets throughout their productive life and then ensure their safe revegetation and natural reclamation.

Our biodiversity management programme considers certain critical parameters to achieve the objectives of biodiversity conservation across the project life cycle – from initial development to decommissioning, closure, and rehabilitation. The programme is spearheaded by the Biodiversity Community of Practice, which ensures proper implementation at every stage and at every site.

The parameters that we consider are:

- Taking a comprehensive approach to managing land use in critical habitats.

- Our policy and standards address any risks associated with biodiversity in all our operations.
- Identifying affected stakeholders basis their interest in the use or management of biodiversity or those who are affected by conservation initiatives. Stakeholders may include organizations, communities or individuals.

Managing biodiversity risks

Biodiversity risks originate from deterioration and disruption of biodiverse regions and are today a matter of concern for a large number of stakeholders. As a natural resources company, we are cognizant of limiting our impact on biodiversity. The growing sensitivity to environmental issues and their impact on biodiversity conservation and pollution prevention can occasionally lead to challenges for our organization. These challenges encompass various aspects, including potential disruptions to our core production materials, complexities within our supply chain, and associated economic and business risks. Given the importance of this category of risks, they are integrated into our overall risk management framework. In this way we ensure that a comprehensive and holistic approach is taken to identifying and addressing these potential risks within our operations. We are also able to monitor and mitigate these risks and their impacts across all our operations, fostering a more sustainable and responsible approach to resource utilization and conservation.

Aligning with international standards and frameworks for effective evaluation

As India leads the world's economic growth

tally, we at Vedanta believe that we have an important responsibility to discharge. As the nation's largest natural resources company, we must set the benchmarks for accountable operations and strong governance. In line with this objective, we have integrated a wide variety of international best practices into our operational processes and governance mechanisms. Our assessment frameworks are modelled on sector-leading international frameworks that answer to the specific needs of a study and its sampling universe.

The Vedanta Biodiversity Management Standard has been developed by incorporating elements from the International Finance Corporation's (IFC) Performance Standard 6 that covers biodiversity conservation and sustainable management of biological resources.

Recently we have completed a comprehensive assessment of the impact of our operations on biodiversity across 52 of our sites. The methodology followed for this assessment aligns with evolving biodiversity and nature-related frameworks like Taskforce on Nature-related Financial Disclosures (TNFD) that require companies to assess biodiversity impact using the following criteria:

- **Locate:** This involves identification of high-risk biodiversity sites,
- **Evaluate:** This involves understanding the impacts and dependencies of our operations on nature, and
- **Prepare:** This involves developing strategies and action plans to address nature-related issues

The TNFD framework is spread across these three phases.

We apply the UN Environment Programme's Integrated Biodiversity Assessment Tool (IBAT) or Species Threat Abatement and Restoration (STAR) metric to screen for risk, identify priority sites where Nature and business interface, followed by site-specific assessments to identify sensitive habitats, important bird areas and key biodiversity hot spots. The results that emerge from such extensive risk screening activities and assessments are used for updating Biodiversity Management Plans (BMPs) for all our main sites.

Vedanta actively participates in the India Business & Biodiversity Initiative. HZL engages in IUCN's Leaders for Nature programme, while Zinc International works with IUCN to ensure strict adherence to the No Net Loss principles at Gamsberg, situated within the Karoo Biosphere Reserve in South Africa.

Base-lining biodiversity and preparing for NNL/NPI

To systematically address the issue of biodiversity conservation and long-term rehabilitation and reinstatement of our mines, it is very important to have a baseline reference of biodiversity conditions. This was accomplished this year, with the establishment of the biodiversity baseline for our sites. This has helped us understand the impact of our operations on biodiversity and determine the nature of actions to be taken to achieve No Net Loss (NNL)/Net Positive Impact (NPI) over the long term.

As a part of our NNL commitment, we have updated Biodiversity Management Plans (BMP) to identify impact-based risks to biodiversity.

Tools like IBAT or STAR are used to identify priority sites where Nature-business interfaces occur, and to also mark out of other sensitive habitats, important bird areas and key biodiversity hot spots. This information is then used in the BMP design. Standard actions are then aligned as per the mitigation hierarchy. At the first level, operations aim for avoidance and minimization of impacts to biodiversity and ecosystems, planned eco-restoration interventions in areas of impact, and balancing of any remaining impacts by designing biodiversity conservation projects (or offsets). Finally, the aim is to go beyond NNL through the implementation of measures to conserve and restore biodiversity elsewhere, and to claim these as offsets, ensuring overall positive biodiversity impact for our operations. This is the crux of our roadmap for achieve Net Positive Impact.

Our Commitment

- **Committed to achieving No-Net Loss at our project operations by implementing the mitigation hierarchy of avoiding, minimising, and restoring the direct impacts and offsetting the residual impacts.**

- **Achieving Net Positive Impact for those sites that are designated as Critical Habitats.**

- **Committed to including a nature-based solution approach in decision-making.**

Our targets as change drivers

By 2024
- Finalise actions and timelines to reach the No Net Loss state
- Kickstart relevant actions that will lead to the achievement of this goal
- Take action to mitigate operational impacts on biodiversity
- Compensate for biodiversity impacts of our operations by implementing comprehensive ecological restoration programme

By 2025
- These initiatives would contribute to the national goal of increasing green cover, and foster the the UN decade (2021–2030) on ecosystem restoration.
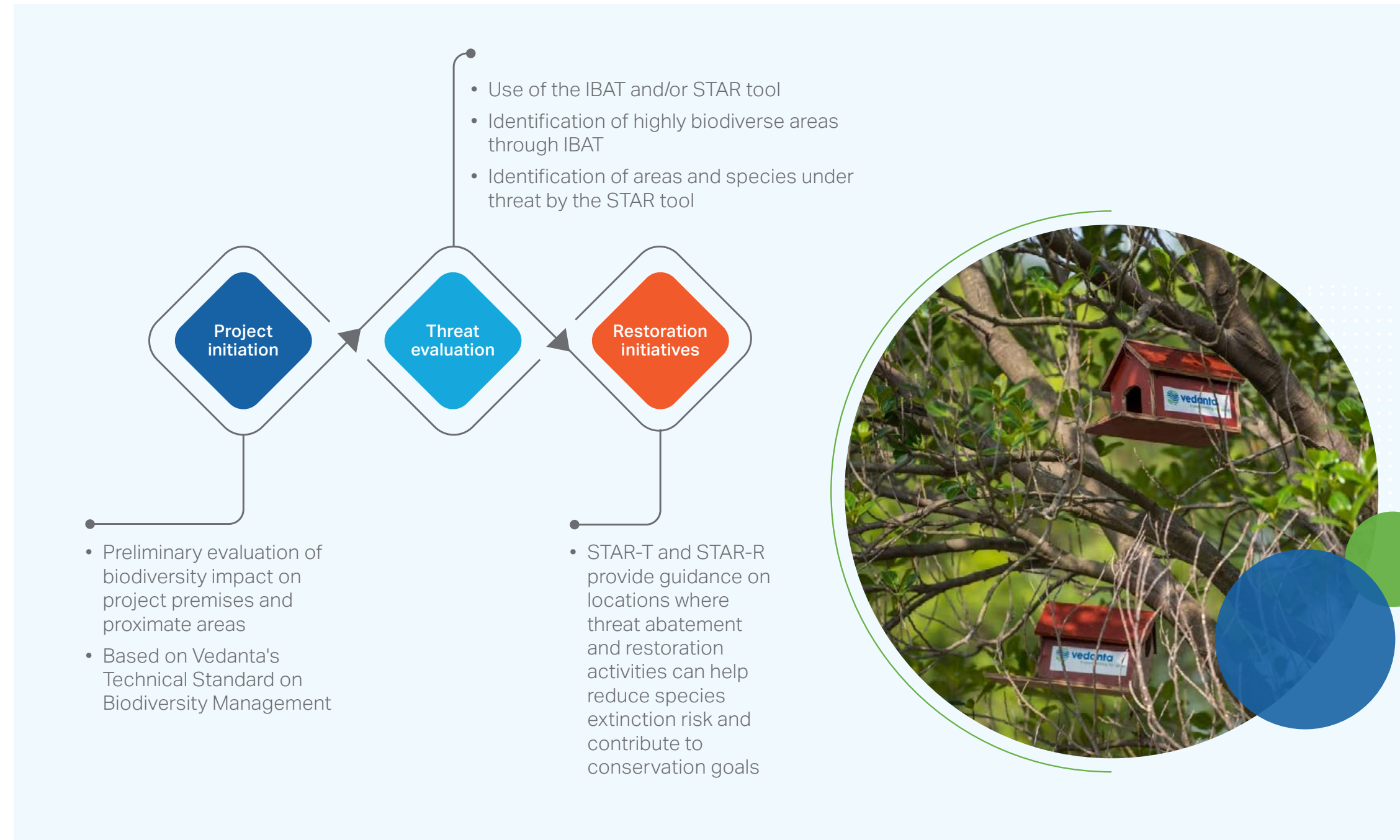
By 2030
- Undertaken to plant 7 million trees as a part of the World Economic Forum's '1 trillion trees' campaign.

See appendix for our IUCN red list

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

STAGE 1: Biodiversity Risk Screening

Biodiversity risk screening involves identifying known or ostensibly sensitive biodiverse areas within core areas and buffer areas that may be directly or indirectly be affected as a result of our operations. Impacts on these areas are usually of two types and are classified as habitat related or species related. We undertake a location specific approach to carry out risk assessment.

Our deep commitment to minimizing negative impacts of our operations is demonstrated by our use of evaluation metrics. To assess potential impact on species loss we use the STAR (Species Threat Abatement and Restoration) metric, which is based on International Union for Conservation of Nature (IUCN) Red List of Threatened Species. The metric-based assessment is done for each business unit. STAR then combines the data on species, the threats they face and their risk of extinction, to produce two complementary global data layers for threat abatement (STAR-T) and restoration (STAR-R).

Activities done and guidelines provided at the Risk Screening stage

- Use of the IBAT and/or STAR tool
- Identification of highly biodiverse areas through IBAT
- Identification of areas and species under threat by the STAR tool

Project initiation

Threat evaluation

Restoration initiatives

- Preliminary evaluation of biodiversity impact on project premises and proximate areas
- Based on Vedanta's Technical Standard on Biodiversity Management

- STAR-T and STAR-R provide guidance on locations where threat abatement and restoration activities can help reduce species extinction risk and contribute to conservation goals

STAGE 2: Biodiversity Risk Assessment

The risk and impact identification process helps to determine biodiversity risks and impacts from a proposed project construction and operations aspect, within a 10 km radius of the site. This part of the risk and impact identification process aligns with regulatory requirements like EIA Notification 2006, and international standard requirements like Environmental and Social Impact Assessments, Biodiversity Management Plans, Critical Habitat Studies, to name the key evaluation exercises.

Further, at this stage, Key Biodiversity Areas (KBA) and Protected Areas (PA) located within a 50 km radius of the site are screened using IBAT and secondary literature. Stakeholder consultations are also extensively held to understand the localized point of view and any distinctive socio-economic, geographic or climactic dynamics that may have been overlooked in the standardized studies.

Post-evaluation outcomes and actions

After the evaluation metrics furnish their results, sites can be clearly classified on the basis of the biodiversity risk they pose. According to such classifications, the conservation actions to be taken are determined.

- Where sites are in close proximity to biodiversity rich areas, as has been identified above, three further evaluation actions are taken. The current status of biodiversity is assessed, along with the interaction of biodiversity with operations at the project site. Further, the biodiversity conservation approach currently being followed is also evaluated.

  This leads to a pragmatic understanding of the as-is conditions, helping in the crystallizing of the to-be way forward. Accordingly, additional biodiversity management practices and measures necessary to achieve our NNL goal are determined, designed and subsequently, deployed.

- Where operations are likely to adversely impact ecosystems, a review of priority ecosystem impact is undertaken.

These include:

1) Ecosystems most likely to be impacted by daily operations, resulting in adverse impacts to proximate communities,

2) Ecosystems on which our operations depend. Further, an ecosystem dependency and impact assessment may be conducted in order to identify critical ecosystem services in the area.

Impacts and dependencies identified in the Biodiversity Risk Assessment

Potential impacts on nature include loss of habitat and/or species and degradation of natural ecosystems, including the impact of pollution. Use of natural capital as represented by natural resources like water, soil, minerals is the other aspect of our impact. Today there is heightened awareness regarding companies' use of natural capital and the corporate world is moving towards natural capital accounting as a basis for project cost evaluation. At Vedanta, we recognize our use of natural resources as a key dependency, which gets reflected in these risk assessments.

The biodiversity risk assessment exercise prioritised the sites on the basis of risk and classifies them as: High, Medium and Low. This assigned priority rating then determines the nature of Biodiversity Management Plan (BMP) to be prepared for the relevant site. Once the plan is prepared, it is implemented and helps to manage and mitigate our impact on biodiversity against a variety of parameters.

A consolidated list of impact-based biodiversity risks and examples of actions to be taken as per the mitigation hierarchy are depicted below:

Biodiversity Risks	Mitigation Hierarchy	
• Loss of modified habitats due to construction of infrastructure (high) • Disturbance due to dust and pollution from the movement of vehicles (high) • Habitat degradation due to fugitive emissions from the plant (high) • Habitat degradation due to air pollution and vehicular movement (medium) • Introduction of invasive species from vehicular movement (medium) • Faunal injury/fatality due to movement of vehicles (medium) • Loss of animal movement corridor (medium) • Possible loss of endangered plant species (low) • Freshwater pollution from accidental run-offs (low) • Loss of natural/wildlife habitats (low) • Loss of migratory and congregatory wetlands for birds (low) • Withdrawal of water resources from water stressed areas (low)	• **Avoid** - No discharge policy to prevent pollution of water bodies - Due diligence to avoid/restrict procurement from Critical Habitats - SOPs to prevent introduction of invasive species during movement of vehicles and goods • **Minimize** - EMP to minimize air, noise, water, soil pollution - Afforestation and greenbelt plantation to reduce disturbance - Regulation of and defining routes for vehicular movements - Improved monitoring of habitats • **Restore** - Soil & moisture conservation activities - Plantation of native and endangered species - Removal of invasive species - Introduction of aquatic vegetation - Restoration of water bodies	• **Offset** - Expansion of vegetative cover in barren/degraded lands - Restoration of wildlife habitats and corridors - Restoration of coastal ecosystems including wetlands and mangroves • **Transform** - Conservation of endangered fauna - Conservation centres for endangered plants - Wildlife rescue support - Support in prevention of forest fires - Livelihood improvement and engagement with local community - Public awareness campaigns - Capacity building for forest personnel - Bamboo fodder development

We completed the Baseline Biodiversity Survey this year for all our sites. The baseline establishes a core set of biodiversity assessment criteria or indicators, which form the basis of site-specific impact analysis and guides the shaping and definition of mitigation and management measures.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

STAGE 3: Biodiversity Management Plan

Biodiversity Management Plan (BMP) is developed for all our operations based on the findings of the technical biodiversity risk assessment and provides detailed guidance on the implementation of appropriate mechanisms that can help to minimize impact. The biodiversity management procedures focus on specific biodiversity topics relevant to the sector that the site falls under, and provides direction on how evaluation and monitoring can be done across the project life cycle, in conformance with milestones that need to be achieved for NNL outcomes.

Risk management measures outlined in the BMP are commensurate with the level of risk identified during the Biodiversity Risk Screening Assessment. For sites that fall within 50kms of a Key Biodiversity Area (KBA), Protected Area (PA), the BMP provides recommendations on due diligence assessment for supply chain entities and for sourcing of material from biodiversity rich areas.

In addition to direct operational impacts, the BMP extends the risk screening process to identification of potential impacts from upstream operations, specifically in relation to the supply of raw materials. Our primary upstream supply chain includes supply of raw materials like coal, alumina to our processing operations. The main impact-based risk originating from upstream operations includes loss, degradation or disturbance to wildlife habitats due to procurement of material from Critical Habitats.

As a mitigation measure, for procurement of raw material from ecologically sensitive areas, the Biodiversity Management Plans prepared for the sites include recommendations to carry out due diligence assessment for entities in the supply chain. One of the key criteria proposed in the assessment includes avoiding sources or transportation routes that could disturb biodiversity sensitive areas such as Protected Areas or Key Biodiversity Areas. This in addition to the requirement for partners in the supply chain to have necessary clearances and permits including Environmental clearance, Forest clearance, Wildlife clearance as applicable.

STAGE 4: Implementation and monitoring

We create customized protocols for biodiversity and ecosystem services management that is specific to each site. These protocols keep evolving based on our examination of existing Best Management Practices (BMP) and procedures, as we seek to address incremental and emerging requirements. These protocols are developed in alignment with global best practices and are constantly informed by our No Net Loss vision, ensuring that the bigger goal of neutralizing net impact on biodiversity over the longer term, remains consistent. Each Vedanta site develops performance indicators on the basis of corporate and legal requirements and uses the GRI Mining and Metals Performance Indicators as reference points.

BMP monitoring entails:
- Collection of data on the implementation of activities and outputs, according to the action plan;
- Collection of data on the delivery of results and impacts according to the indicators identified in the logical framework/monitoring and evaluation activity/ programme;
- Collection of data on the indicators specified in the BMP.

Sites adjacent to areas of high biodiversity value

Business Unit	Site	Location	Area of Biodiversity Value	Area (Ha)
Aluminium	Vedanta Lanjigarh	Lanjigarh, India	Niyamgiri, Khambesi	833
ESL Steel Limited	Bokaro Plant	Near Bokaro, Chattisgarh	Notified forest adjacent to the plant	540
Zinc International	Skorpian Zinc	Rosh Pinah, Namibia	Sperrgebiet National Park	1,705
	Black Mountain Mines	Aggeneys, South Africa	Succulent Karoo Biodiversity Hotspot	23,997
	BMM - Gamsberg	Gamsberg, South Africa	Succulent Karoo Biodiversity Hotspot	15,205
Total				42,281

Mitigation Approach

Biodiversity Mitigating Actions

The underlying objective behind these extensive screening and evaluation exercises is the avoidance or mitigation of negative biodiversity impacts, and these are implemented on priority. Biodiversity offsets are the final resort for compensating for any such impacts that remain after all possible avoidance and mitigation measures have been implemented. Net positive gains achieved through offsets are designed to rebalance any critical habitat impacts that cannot be avoided.
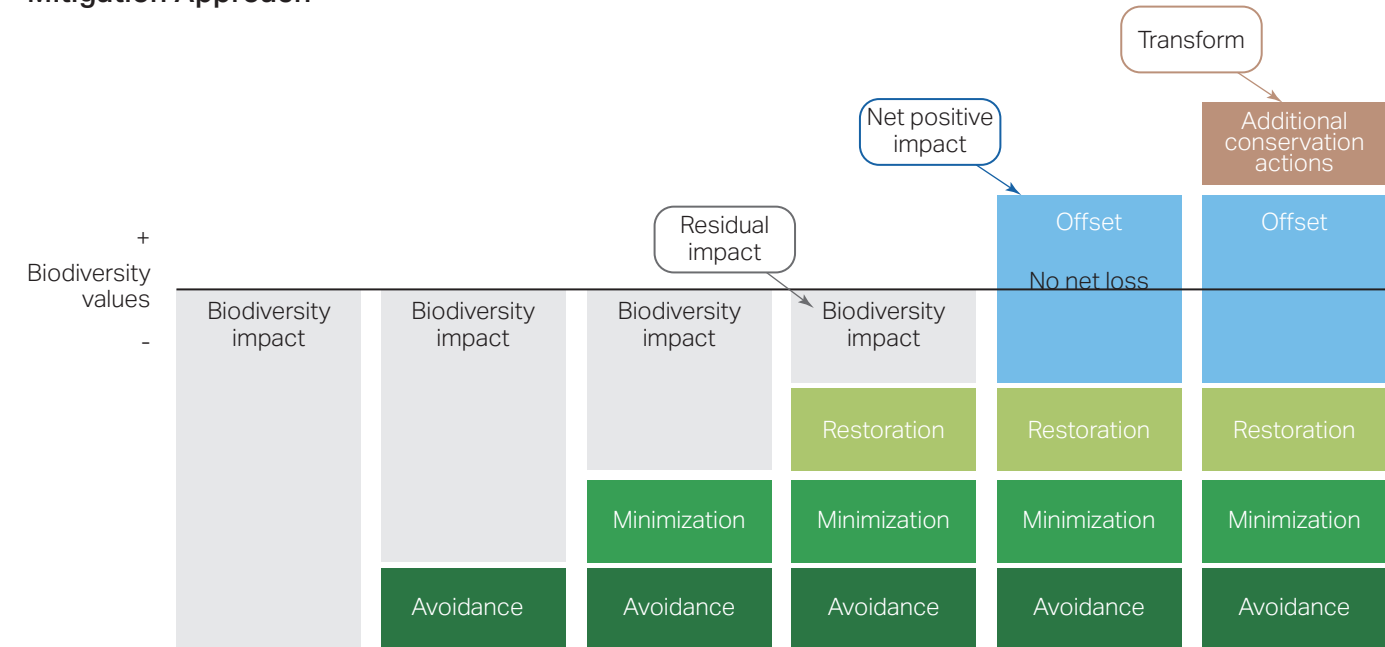
Revival of Khejari in the Thar ecosystem through agro-forestry measures

15 LIFE ON LAND

Target
15,000 plantations by FY 2025

Progress till 31st March 2023
300 plantations done

As part of Cairn's ESG commitment toward No Net Loss to biodiversity and to conserve indigenous and ecologically sensitive floral species of the Thar region in Rajasthan, we have initiated a project for the revival of Khejari. The Khejari tree is Rajasthan's state tree and has both ecological, social as well as, economic importance. This species is adapted to thrive in the harsh and arid conditions of the region and helps in sustaining the nutrient value of the soil. The leaves are used as fodder for livestock. The tree also helps in nitrogen fixation and improves the quality and fertility of the soil. Further, Khejari pods, locally known as sangari are used as a vegetable and is rich in proteins, minerals and fibers. The tree is also used for medicinal purposes, for curing of ailments like asthma, bronchitis.

However, due to over-cultivation, grazing and habitat degradation the Khejari population has been decreasing. Cairn has distributed 300 saplings of Shobha Khejari to farmers in 2022 as a part of its Van Mahotsav initiative. This activity will help in improving soil quality and also generate livelihoods for the farmers.

Cairn has also committed to plant 15,000 saplings of Khejari in the Thar desert region, thereby helping to support the local biodiversity of this fragile and unique ecosystem.

Impact

Biodiversity conservation and livelihood generation for farmers by providing the higher yielding variety of Khejari.

Way Forward

Cairn's long term objective is to increase the population of Khejari in western Rajasthan, by involving both local communities and the government. Our short- to medium-term goal is to increase the number of plantations in the areas surrounding our site.

Manmade mangroves and species conservation at Ravva

15 LIFE ON LAND

Over the past 20 years, Cairn has transformed 56 acres of waste land adjoining its Ravva oil and gas field in Krishna-Godavari basin near Surasaniyanam in Andhra Pradesh, into a lush spread of mangroves that hosts thousands of different species of flora and fauna. The Ravva oil field on the Bay of Bengal coast, is a joint venture between Cairn Oil & Gas-Vedanta Ltd, Oil & Natural Gas Corporation, Videocon Industries Ltd and Ravva Oil Singapore Pvt. Ltd. Cairn became the operator of this field in 1996.

The reclamation of the 56-acre stretch of dry wasteland began as a social and environmental change initiative and subsequently became an ongoing CSR initiative for the JV entity. The reclamation entailed the creation of manmade mangroves and wetlands in the area which houses Cairn's crude oil storage and processing terminal. As a part of the reclamation initiative, 8 mangrove species out of the 40-odd commonly found species endemic to the eastern coast, have been transplanted and nurtured in Ravva.

Impact

South and South East Asia are losing mangroves at the fastest rates in the world. Yet mangroves have an even greater role to play in these regions which face some of the fiercest storms and hurricanes in the world, against which mangroves can act as natural barriers. These regions also have high population densities and high carbon emissions trajectories, where mangroves can make a dent given their high rates of carbon sequestration. Our wetlands at Ravva are thus a step in the right direction. These luxuriantly, dense wetlands support approximately 150 species of avifauna, 52 species of butterflies, more than 5 species of mammals and snakes each, and hundreds of species of insects, beetles, spiders. Species like the Fishing Cat, Smooth coated Otter, Black Tailed Godwit, Painted Stork, Black-headed Ibis,Spot Billed Pelican, which are classified as 'nearthreatened' or 'vulnerable' in the IUCN Red List of Threatened Species, are all found in these mangroves, which provide them with a natural habitat. The disappearance of mangroves from India's and south Asia's coastal regions have also meant that a lot of aquatic, amphibian and tropical rain forest-based species have lost habitats, a gap that Ravva is filling. The wetlands are also enriching the soil beneath. Revva's topsoil samples are estimated to have an organic carbon content greater than 1.9%. The very high-density canopy created by the mangroves also makes it an exemplary carbon sink. So far, the wetlands have stored more than 2000 tonnes of carbon and sequestered nearly 7500 TCO_2e of greenhouse gases from the atmosphere.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Air emissions and quality

Air quality management and emissions control are issues that affect a large number of stakeholders and need strong oversight and regular monitoring. The efficient management of air emissions from our sites, their impact on the ambient air quality is a vital component of our sustainability strategy and crucial for fostering positive relationships with our neighbouring communities.

Further, it is mandatory for us to comply with environmental regulations on a variety of air emissions like emissions of particulate matter, sulphur dioxide (SO_2), nitrogen oxides (NO_x), and others. Non-compliance can result in fines, penalties, and legal consequences for the company and also disrupt regular operations. Therefore, rigorous air emissions management is necessary as significant operational and reputational risks are involved.

Processes involved in mining, such as drilling, processing, and transportation, all have an impact on air quality. We have established systems for continuous monitoring of the air quality at our sites so that effects of our operations can be evaluated in real time and suitable interventions for maintaining mandated standards of air quality, can be taken. We do this with the help of emission control technologies and advanced monitoring systems, which flag off any potential issues. We actively monitor SPM, sulphur oxides (SO_x), and nitrogen oxides (NO_x) as part of our ambient air quality monitoring process. Additionally, lead emissions from our zinc operations, fluoride emissions from our copper and aluminium operations, and Polycyclic Aromatic Hydrocarbons (PAHs) from our aluminium operations are being monitored to align them with our Environmental Management Standard.

Measures to enhance air quality

As in other areas, our focus on air emissions management goes well beyond mere compliance. We are using advanced technologies and processes to minimize our emissions and reduce our environmental impact. In 100% of our sites we have met the compliance requirements.

Air Emission (metric tonnes)*

FY 2023	NOx 89,857 / SOx 502,403 / PM 18,275
FY 2022	NOx 84,641 / SOx 509,069 / PM 11,827
FY 2021	NOx 66,305 / SOx 526,421 / PM 19,693
FY 2020	NOx 67,317 / SOx 508,206 / PM 11,215

Legend: PM Emissions, SOx Emissions, NOx Emissions
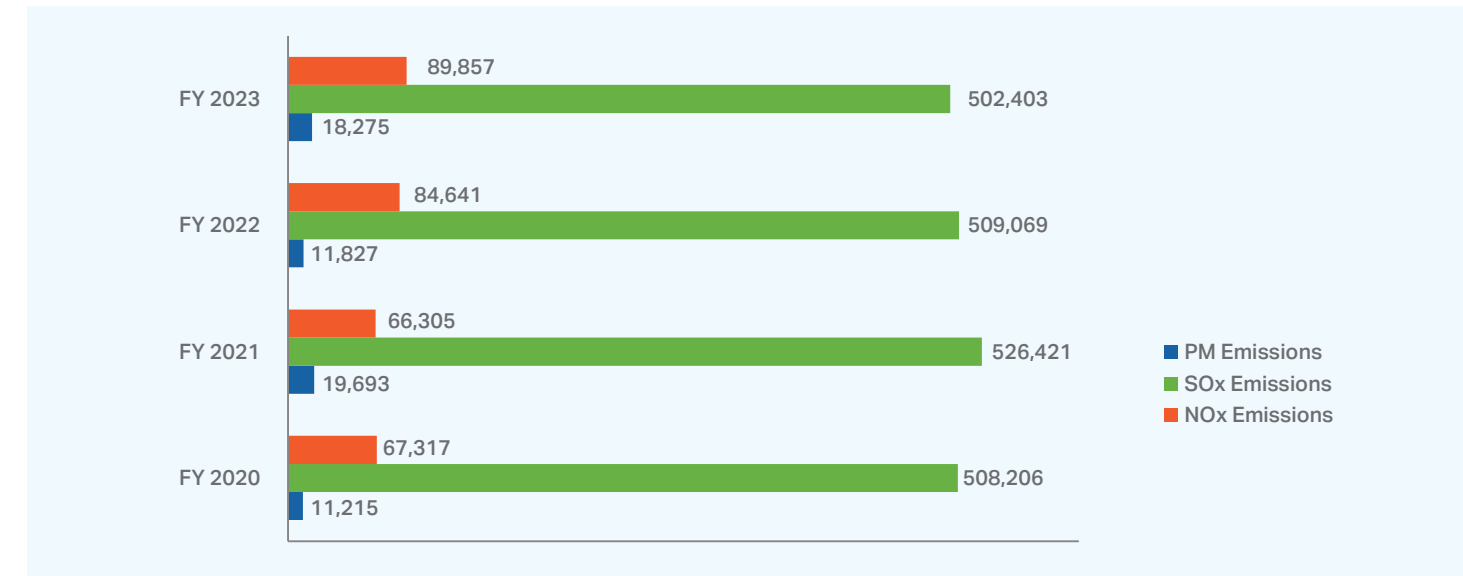
SOx emissions have been recalculated based on revised SOx emission factor in FY23

Air quality improvements

Operations/Units	Activities (Policies/Technological interventions etc.)
ESL	**HFTR Installation in Sinter** High Frequency rectifier transformer is installed in Sinter Plant to bring the emission below 100 mg/Nm3 by improving the frequency of Electrostatic Precipitator (ESP).
HZL	**Tail Gas Plant (TGT)** Installed in smelter to further cut down SO_2 emissions from stack.
VAL Jharsuguda	**Installation of Wheel Wash System** Wheel Wash System improves the ambient air quality at Ash Handling Plant AHP & Coal Handling Plant CHP area during transportation has been improved and it meets NAAQS

Transforming the Workplace

Our organization owes its six decades of extraordinary growth to the commitment and resourcefulness of our employees. We strive to make our workplace distinctive – by nurturing and rewarding talent, by maintaining exemplary safety standards, by promoting diversity and equality across all levels and by always, honouring merit.

A workplace that prioritizes safety is also a workplace that experiences higher levels of productivity. This principle is what fuels our continuous efforts to establish a safer workplace with a goal to attain zero workplace fatalities by FY 2025 and no exposure to red zone areas by FY 2030. To achieve these goals, we are actively educating and equipping our employees, adopting state-of-the-art technologies, overhauling our safety management systems and building in oversight and accountability at different levels.

Diversity at the workplace richens perspectives and sharpens our competitiveness. We have set aggressive diversity goals that will enable us to tap into non-traditional talent pools and to introduce a heterogeneous mix into our leadership pipeline. Our governance standards and the mechanisms that we follow to uphold ethical conduct, integrity and accountability remain robust and well entrenched.

Our global ambitions and national priorities are fuelled by our belief in ourselves – the quality of our people and the strength of the organization that we have built.

In this section

Aim 7
- Prioritising safety and health of all employees

AIM 8
- Promote gender parity, diversity, and inclusivity

AIM 9
- Adhere to global business standards of corporate governance

KEY HIGHLIGHTS
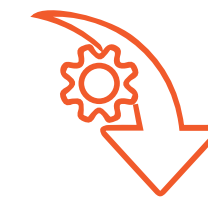
1.20
TRIFR

25
number of transgenders

81%
significant suppliers assessed

Board

```
Board
  ├─ ESG Committee
  └─ Nomination and Remuneration Committee

Executive Management
  ├─ HSES Mancom
  └─ HR Mancom

Implementation
  ├─ Safety Community of Practice (CoP)
  └─ DEI Council

Implementation responsibility
```

Health	Diversity
Injuries and Fatality	Employee well being
Emergency Response	Inclusion
Occupational Safety	Employee engagement

SDG

5 GENDER EQUALITY

8 DECENT WORK AND ECONOMIC GROWTH

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

POLICIES

Diversity, Equity and Inclusion Policy, Board Diversity Policy
Code of Business Conduct and Ethics, Supplier Code of Conduct,
Supplier and Contractor Management Policy

STAKEHOLDERS IMPACTED

Employees, Suppliers, and Investors

TARGET

Aim 7

| Zero fatalities | 30% reduction in TRIFR by FY 2025 (with FY 2021 as baseline) | No employee exposure to red zones by FY 2030 |

Aim 8

| Equal Opportunity for everyone by FY 2025 | 20% gender diversity (Full-time-Employees) by FY 2030 | 40% gender diversity in leadership roles (Full-time-Employees) by FY 2030 |
| 30% gender diversity in decision- making bodies (Full time -Employees) by FY 2030 | 10% gender diversity in technical / shop-floor roles (Full-time employees) by FY 2030 | |

Aim 9

| Zero governance issues by FY 2025 | Rubaru to be introduced at all Business Units across Vedanta by FY 2025 | Continue to cover 100% employees in code of conduct training |
| Minimum 50% Independent Directors on Board as per SEBI requirements FY 2025 | 25% gender diversity on the board FY 2025 | |

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

**TRANSFORMING
THE WORKPLACE**

Aim 7

Prioritising safety and health of all employees

Key Material Issues

Health, safety & well-being

8 DECENT WORK AND ECONOMIC GROWTH

Creating a safe workplace for our employees that promotes and safeguards their health and wellbeing is the foundation for organizational growth and the collaborative impact that we can create on society. Maintaining a strong health and safety record helps build trust with our employees and other allied stakeholders and strengthens our reputation as a responsible and caring employer.

It also helps to attract and retain employees, foster positive relationships with local communities, investors, and customers. A safe work environment reduces absenteeism and improves overall productivity, leading to cost savings. Unsafe work conditions can significantly impact productivity and, consequently, have a negative effect on the company's reputation. .Therefore, ensuring the good health and safety of our workforce is of the highest priority for us.

We administer our health and safety processes through a well-defined framework of policies and processes with supervisory oversight at the highest levels of the organization, and managerial control flowing down to the functional leadership levels and to the site, plant and office staff. Procedures for hazard and risk management are well-defined and the workforce is regularly trained on these, along with independent audits being carried out to check preparedness and conformance with procedures. We employ a large number of contractors as a part of our regular workforce and similar health and safety practices are maintained for them.

Our ultimate goal is to keep health and safety incidents at the minimum and to build, reinforce and maintain a very strong safety culture.

Promoting Safety at Every Step

Our Commitment to Zero Harm

Under Aim 7 our focus on occupational health and safety is driven by the goal of establishing a zero-harm work environment. As a mining major, we are fully cognizant of the inherent risks that accompany the act of mining and we have built in processes and checks and balances within the system that can identify hazards early and mitigate or remove them. Our employees are duly trained in the risks attached to their work and taught methods to act with utmost caution and care, under all conditions. The implementation of Aim 7 is led by the Safety Community of Practice across the entire organization.

In our overarching organizational vision of 'Transforming for Good' the Healthy and Safety function has a central role to play for a 'sustainable' future can only be built on the plinth of safety, health and wellbeing. This long-term vision informs our thinking around the Health and Safety function, and our constant attempt is to benchmark it with the best in the world.

Our comprehensive safety framework integrates several aspects to ensure top-order safety compliance and performance. We have implemented of 17 safety performance standards and 20 health and safety technical and management standards. Currently, we are in the process of updating these standards and aligning them with

international best practices. The performance against these standards is internally audited in keeping with the Vedanta Sustainability Assurance Programme (VSAP).

Taking a no-compromise approach towards our safety commitment, we have also integrated the highest international quality and occupational health and safety parameters into our ways of working and control.

All our operational facilities and sites have obtained prestigious certifications like ISO 45001 and OHSAS 18001. We are also aligned with the guidelines set forth by the International Council on Mining and Metals (ICMM), whereby we not only ensure that our operations are safe, with all proactive safeguards in place, but also environmentally sustainability.

The other aspect of our comprehensive safety framework are the protocols that we observe to keep our practices updated with the latest advancements in the field of occupational health and safety. We do this through regular assessments, audits, and through dedicated feedback mechanisms, learning from industry used cases and evolving national and international systems.

All our operational facilities and sites have ISO 45001 and OHSAS 18001

85

Occupational Health and Safety Management

Our safety committees play a vital role in driving and assessing safety performance within our organization. With the objective of creating a zero-harm work environment, we promote a safety-first culture where every individual is responsible for workplace safety. All leaders are expected to exemplify the highest levels of safety discipline in their respective areas so that they can serve as direct role models for those below them. In cases of recurring safety violations or fatal incidents, we enforce strict consequences for our management teams.

Regular and comprehensive training is conducted in various safety domains for all levels of our workforce to ingrain a safe work culture. Our safety leadership actively collaborates with site in-charges and their safety officers, to regularly upgrade their skill development, thereby once again, reinforcing a robust safety culture at our sites.

Safety Performance

Despite our ongoing efforts to achieve the ambitious goal of zero fatalities, in FY 2023 we regrettably experienced 13 fatalities. In response, we have conducted comprehensive investigations into each accident to identify the root cause and prevent recurrence, at any cost. After thorough analysis of the findings, the top three causes of fatalities have been identified as man-machine interaction, vehicle driving, and structural stability. Further, as a preventive measure we have also established a detailed mechanism for investigating every accident that occurs onsite. As a part of this mechanism, each incident will be examined by a senior leadership team member, appointed by the Group Executive Committee. The findings and conclusions from these investigations will then be promptly disseminated horizontally across all Business Units (BUs), ensuring that the lessons are learned quickly and disseminated effectively.

Over the past two years, our Lost Time Injury Frequency Rate (LTIFR) has remained constant at 0.58. In FY 2023, the Total Recordable Injury Frequency Rate (TRIFR) for Vedanta was 1.22, which reflects a steady decline from the 1.44 recorded in FY 2022. This indicates a favourable decrease in the frequency of recorded injuries within the organization.

BU leadership continues to emphasise on three focus areas:

• Visible felt leadership
• Safety-critical tasks
• Managing business partners

We have identified three key levers for enhancing our safety performance and preventing fatal injuries in future.

These are:

• **Critical Risk Management**

While our safety initiatives have successfully improved our injury rates, the occurrence of fatalities are still a big concern. To counter this, we have introduced a comprehensive Critical Risk Management (CRM) programme throughout our organization. CRM takes a risk-based approach based on proven ICMM 9-step methodology. This initiative aims to identify and evaluate critical risks, as well as measure, monitor, and report on the effectiveness of control measures. We have partnered with global experts for deploying this programme and it is being run across all our BUs. Under CRM, we have identified 13 critical risks across Vedanta, based on trends and fatalities observed over the past 10 years. For 9 out of 13 of these critical risks, control designs have already been developed, and we have successfully rolled out 6 critical risk controls across the company with the help of the external consultant team.

In FY 2023, vehicle-pedestrian segregation, man-machine interaction, and work at heights were identified as three critical risk areas for work onsite.

Each business unit CEO is personally responsible for specific risks, and a well-defined governance structure has been implemented. Further, we are in the process of standardizing risk procedures, and uniform risk-specific practices are soon to be rolled out across all divisions of Vedanta. Risk champions have been involved in the design and control of these risk-specific practices. Risk champions are from different BUs and they base their suggestions for improvement or new design on their in-depth understanding of existing controls and factors contributing to fatalities. Further, design workshops on four different risks have already been completed. The complete programme is expected to be rolled out by the first quarter of FY 2024, taking us closer to our zero-harm workplace goal.

• **Improving safety infrastructure**

We understand the significance of ensuring a secure working environment for our staff and have made it a top priority to enhance our safety infrastructure. Our efforts include the installation of designated walkways equipped with guiding rails, marked roads with traffic signals, and dedicated lanes for ash dumpers. Our main objective is to eliminate any potential fatal injuries caused by inadequate safety infrastructure.

- **Employee and business partner training**

  Awareness building on safety best practices, potential hazards and emergency procedures are fundamental to maintaining a strong safety culture within the company. We do this through on-site trainings, virtual webinars and group CEO sessions. Our regular workforce, contractors and business partners are all included in such activities. Such awareness building sessions are held at regular intervals and help to build and reinforce understanding and familiarity with standard safety practices that need to be observed at all times.

  Employees and partners are also trained on behaviour patterns or sequence of actions that need to be taken in case of any kind of hazardous circumstances so that operations can be halted promptly.

1.89 million
man-hours of safety training
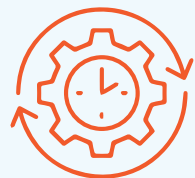
2.49
Average H&S training hours per FTE

Lost Time Injury Frequency Rate (LTIFR) (per million man-hours)

	Total	Contractors	Employees
FY 2023	0.52	0.54	0.44
FY 2022	0.58	0.59	0.55
FY 2021	0.56	0.54	0.46
FY 2020	0.67	0.71	0.45
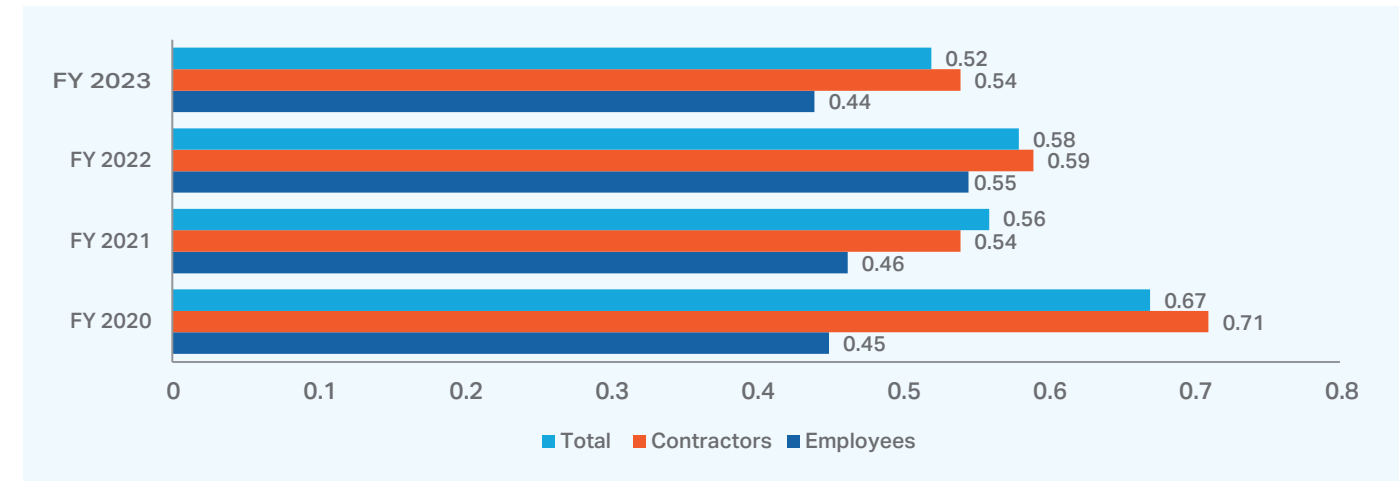
Total Recordable Injury Frequency Rate (TRIFR) (per million man-hours)

	Total	Contractors	Employees
FY 2023	1.2	1.26	0.82
FY 2022	1.4	1.49	0.96
FY 2021	1.48	1.57	1.08
FY 2020	1.62	1.76	0.99

Fatalities

	Permanent Employees	Contractors
FY 2020	1	6
FY 2021	0	8
FY 2022	0	12
FY 2023	1	12
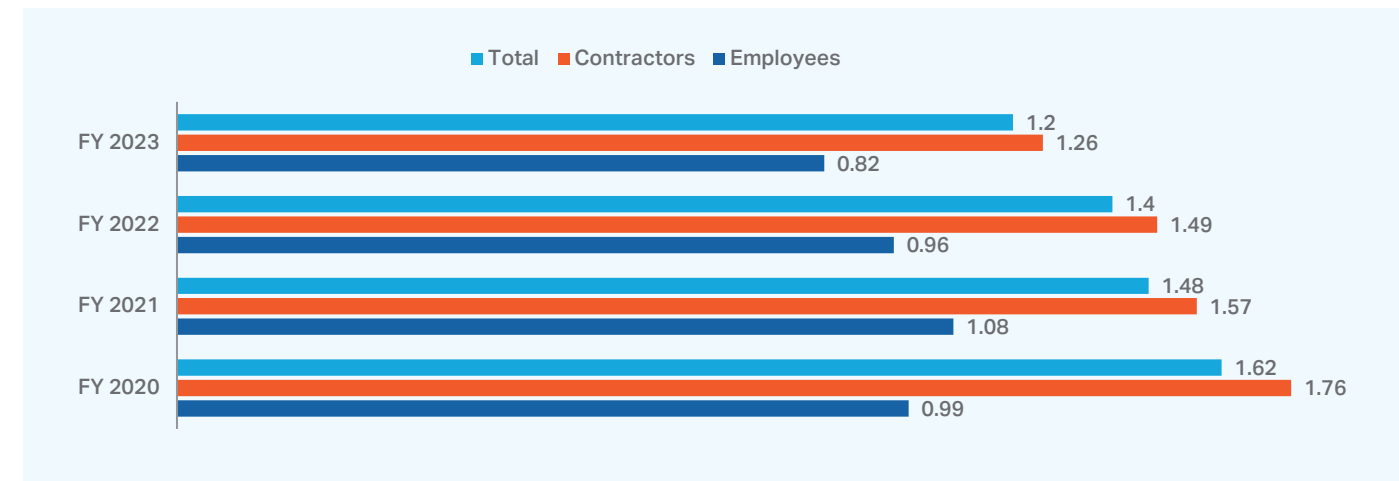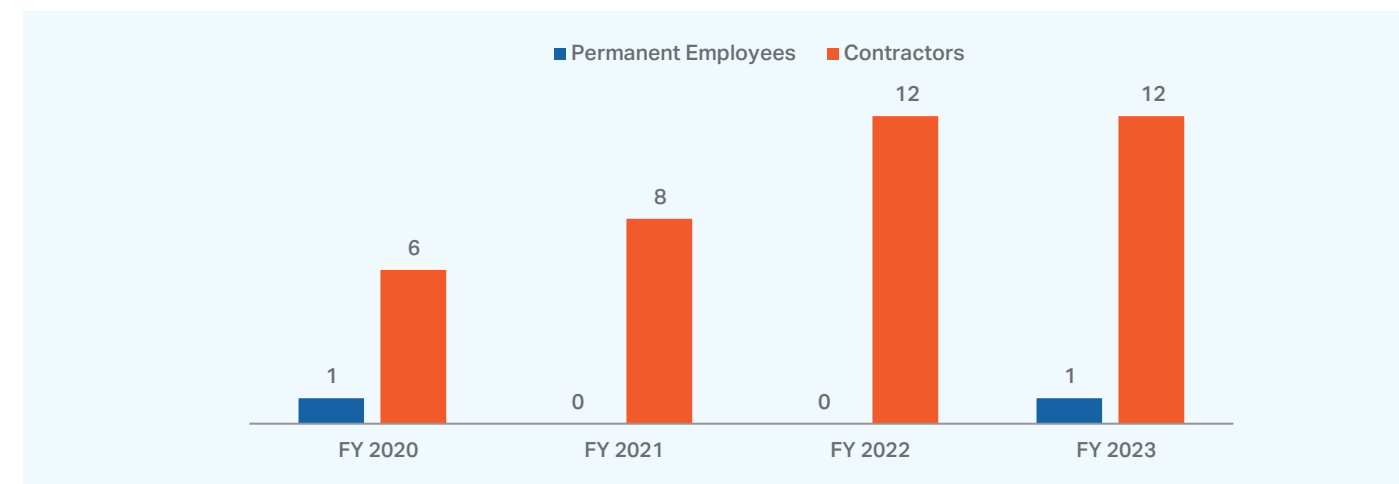
Details on Fatalities

Business	Type of Operations	Number of Fatalities	Vedanta Employee/ Business Partner	Risk Category	Detail of the incident	Actions Taken
Zinc Business	Mine, HZL	1	Business Partner (Contractor)	Shaft & Hoisting	A fatal injury occurred when a rock fell from the gap between the shaft and man-cage, which hit the individual who was entering the man-cage. The rock originated from the skip, which operates within the same shaft, and the incident was a result of the skip being overfilled.	Designed and implemented hardwire interlocking to allow only either skip or cage to operate at a time.
	Smelter, HZL	6	1 Employee 5 Business Partners (Contractors)	Structural Integrity	Catastrophic damage to the sulfuric acid tank resulted in acid splash, the leakage of sulfuric acid resulted in acid burn injuries and loss of human life, as well as shutdown of the unit.	A complete Structural Integrity review was carried out for all tanks.
Aluminium Business	Power Plant, Val-J	1	Business Partner (Contractor)	Vehicle & Driving	The silo operator was hit by the vehicle body due to the sudden movement of Hyva and came under rear tyre that resulted in the injury.	Action has been taken to implement Integrated Traffic Management and mobile phone ban on shopfloor.
Steel Business	ESL Steel Ltd.	1	Business Partner (Contractor)	Confined Space	During the tare weight measurement of a cement bulker, the driver noticed the presence of leftover cement inside the bulker. As a result, driver decided to return to the DI Plant to unload the cement. To do so, he opened the lid to enter the bulker, as the bulker contained concentrated nitrogen used for cement unloading, the driver suffered from asphyxiation and lost consciousness, falling into the bulker, which is considered a confined space.	All Bulkers have been recategorized as "confined spaces" ensuring that no individual is permitted to enter the tank without proper controls and safety measures in place.
	ESL Steel Ltd.	2	Business Partner (Contractor)	Electrical	An electrical flashover due to testing on live busbar caused burn injuries to 4 BP engineers involved, out of which two of them succumbed to their injuries.	Backdoor panel interlocks have been installed to prevent inadvertent opening of panel if there is power supply present.
FACOR	FACOR	1	Business Partner (Contractor)	Vehicle and driving	A diesel filling tipper ran over the right leg of the BP employee who was close by the vehicle and the IP succumbed to his injuries.	A dedicated pedestrian path has been established to ensure the segregation of personnel movement. An action plan with defined timelines has been formulated to enhance road infrastructure.
	FACOR	1	Business Partner (Contractor)	Molten Materials	IP got entrapped during severe furnace eruption where he got exposed to hot fumes and dust.	Automation of all high-risk activities of Molten Materials to eliminate people in line of fire has been carried out.

Incident Cause Analysis Method (ICAM) for Safety Investigations

Vedanta views fatalities very seriously and has used each such setback to progressively improve safety management. Our Incident Cause Analysis Methodology (ICAM) comes into play immediately after a fatality occurs. A cross-functional team is put together after the occurrence of an incident, and this team conducts the ICAM investigation on-site to identify the underlying causes and shortcomings. Based on their findings, recommendations are formulated and communicated across the company through safety alerts.

ICAM follows a holistic approach that involves gathering information, analysing evidence, and identifying contributing factors to determine the sequence of events leading up to the incident. The method emphasizes the need to look beyond immediate causes and uncover deeper underlying factors such as organizational culture, communication breakdowns, inadequate procedures, pattern of equipment failures, or training deficiencies.

At Vedanta, we have developed multiple ICAM leaders across sites to investigate the fatalities that have occurred this year. Each investigation has been meticulously examined by a designated senior leadership team, appointed by the esteemed Group Executive Committee. Their collective expertise and insights have played a pivotal role in comprehensively understanding the causes and circumstances surrounding each incident. The findings and analysis of causes emerging from these investigations are being shared and cascaded through an extensive training program, while specific learnings are being disseminated horizontally across all BUs. Sharing of such valuable insights and learnings can prevent future incidents while also fostering a culture of continuous improvement and heightened awareness within the organization.

At Vedanta, we are trying to build a highly evolved safety culture that is well-entrenched and also dynamic and adaptable. The organization is working together – from senior leadership, and onsite management, to our workers and partners – to help improve and evolve our safety practices and to learn from past incidents to build a safer future for all. To become a sustainable and safe business, this is the only way forward.

Forum with Group CEO: Empowering Dialogue: Engaging with Leaders

We have recently introduced Group CEO townhalls, providing a monthly opportunity for the CEO to engage with the HSE teams. This platform serves as a valuable space for individuals to directly communicate with senior leaders, sharing their perspectives and obtaining senior management insights on safety matters. Within these townhalls, we recognize and celebrate Safety Heroes from both our employees and business partners, acknowledging their exceptional commitment to promoting safety.

Safety KPIs are incorporated into the performance management of all employees, incentivizing safe behaviour and proactive risk management.

Vedanta's leadership has undertaken the SMRITI Initiative, as a dedicated effort to revisit and reflect upon the lessons learned from incidents that have resulted in fatalities.

By revisiting these tragic incidents and their underlying causes, the CEO actively initiates discussions and sets into motion activities that aim at recalling the circumstances of these incidents, their causes, associated learnings, and ways of prevention.

Cross Business Audit Programme

This organization-wide programme has been initiated to enhance the dissemination of learnings and facilitate the sharing of best practices horizontally. Approximately 25 internal auditors from Vedanta sites have received training from the British Safety Council. The audit methodology and comprehensive check sheets have been developed taking into account the critical risks identified at the Business Unit level.

Driving Safety through Digitalisation

We have successfully implemented the Enablon platform, which is a leading integrated software solution for effective risk management. This implementation will significantly support the management of our safety performance, helping to mitigate risks, and enhance data analytics for swifter and more effective decision-making. By utilizing Enablon, we can ensure transparent reporting, thereby facilitating a culture of continuous improvement within our organization.

Our subsidiary, BALCO has successfully introduced a digital solution that guarantees complete safety compliance on the shop floor by employing pre-trained Artificial Intelligence (AI) models. This initiative involves the continuous monitoring of unsafe activities through a network of cameras, with real-time data being fed into a centralized AI data lake. The project provides comprehensive coverage, particularly in challenging or inaccessible areas, thereby ensuring safer work environments with 360-degree monitoring.

More than 2,500 employees and business partners have completed the training on five Critical Safety Standards. In Phase 2, 6 additional modules will be launched. The modules will also be made available in the regional language for business partners. By utilizing Enablon, we can thoroughly analyse incidents, gaining significant insights into vulnerable areas at our sites and identifying underlying causes that require attention. This data-driven approach enables us to make informed decisions for improvement. Enablon analytical capabilities allows the examination of historical data, helping us to verify our analysis against past trends and further enhance our understanding of incidents, leading to more effective decision-making.

Based on last 10 years' data, we have developed a matrix of recommendations specifically addressing considerations for infrastructure development and engineering controls. This matrix helps to prioritize on improvement areas so that the most pressing safety measures can be implemented, and future incidents prevented. It also serves as a tracking mechanism, highlighting all those areas where improvements are necessary. The matrix is now a mandatory aid for safety infrastructure creation, enhancement, and refurbishment. Sites will have to comply with its recommendations as per a time-bound action plan. Third-party verification will be carried out once 100% compliance has been reached.

Emergency Preparedness

Emergency preparedness is crucial for contractors working in any of Vedanta's operating locations. Contractors are required to understand the site's emergency evacuation plans, including evacuation routes, assembly points, and any designated safe areas, andfamiliarise with emergency exits, fire extinguisher locations, and other safety equipment on-site.

Driving Safety Digitally

Secure implementation of digital tools, technologies and online platforms in the workplace have been remarkable aspects of Vedanta's journey towards making our operations safer. After a pilot study conducted at HZL-Chanderiya facility, we have adopted a camera-based surveillance technology, that helps monitor and track safety violations in real-time.

To aid employees' understanding of safety standards, we have introduced various digital safety e-learning modules across business units and seamless implementation of these standards is ensured through Enablon. Enablon's expertise in integrating safety solutions into operations, has helped us minimise risks, drive data-driven solutions and ensure transparent reporting.

Enhancing workplace safety at BALCO through introduction of Lightening Protection System

8 DECENT WORK AND ECONOMIC GROWTH
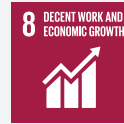
In the mining industry, workplace safety covers a wide range of hazards. At Vedanta, we follow uncompromising safety standards, and stay alert to emerging hazards to ensure all-round worker safety. In 2023, we made our workplace safety even more robust through the installation of a Lightening Management and Alert System, which provides comprehensive predictive and protection capabilities.

Lightening has immense destructive force as it carries massive electrical discharge of nearly a billion joules of energy, and can have catastrophic impact on human life and property. After experiencing a fatality caused by a lightning strike in the ash dyke at BALCO it was decided that we would take all necessary protection to prevent any such recurrences.

Ten lightning arrestors (LA) have been installed in different areas of the Ash dyke. Eleven Lightning Protection Systems (LPS) have also been installed, which activate alarms in case of lightning occurring in the area and actuates safety earth and dissipates the impact of lightning in case of a strike.

The LPS has predictive capabilities and its sensitive equipment can detect the occurrence of storms and lightning in the vicinity. The LPS consists of a network of air terminals, bonding conductors, and ground electrodes designed to provide a low impedance path to ground for potential strikes. The LPS acts as an early warning system whenever it detects bad weather. Through warning flashes of revolving light and hooter alerts the LPS provides warning on imminent storms and weather disturbances, allowing adequate time for preparation and precautions.

The LPS also plays a protective role in several ways. When it detects bad weather, the LPS automatically switches off sensitive and high-value electrical assets to auxiliary power, until safe conditions return. Once the danger has passed, the safety system seamlessly transfers these assets back to the main power supply. The LPS also prevents harm from lightning strikes through its feature of providing a low impedance route to the ground.

These very useful features help to effectively safeguard high-value and sensitive equipment, and to protect human lives from danger of sudden lightning strikes.

Safety Patrollers Project

The Safety Patrollers project is another innovative initiative aimed at enhancing safety at the workplace. Safety Patrollers work as safety officers, and help to identify unsafe acts or conditions on a regular basis. They also conduct safety interactions, and assess other safety-related critical tasks.

How the project works

This project involves more than 5000 operation and maintenance (O&M) employees who take on the role of Safety Patrollers. The rotation of duties works according to a roster that is drawn up on a monthly basis, with selective O&M employees being identified at respective BU levels and then designated as safety patrollers with the approval of BU Heads. Safety patroller schedules are periodically uploaded onto a web portal for easy access and reference. Each day, auto generated emails are sent to the safety patrollers, providing them with the necessary information and reminders. Every day, nearly 40 to 50 Safety Patrollers actively fulfil their duties. In their role as the safety officer, they spend their time focusing on safety interactions, observations, verification of critical controls, permits to work (PTW), toolbox talks (TBT), and injury corrective and preventive action (CAPA) verification. They report their observations and interactions through the web portal. Compliance monitoring of the safety patrollers is conducted on a monthly basis to ensure adherence to safety protocols and responsibilities assigned.

Overall, the Safety Patrollers initiative has helped in two ways: In the establishment of a positive safety culture and the development of safety competencies among employees. These outcomes contribute to our long-term vision of a zero-harm workplace and is a wonderful example of how our collaborative efforts can sustainably drive safety awareness and practice across the organization.

Using immersive and intuitive technologies to create a safer workplace

8 DECENT WORK AND ECONOMIC GROWTH
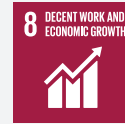
Transforming the Workplace is an essential pillar of our 'Transforming Together' vision, and this involves creating zero-harm work environments for our workforce through the use of innovative technologies. Reducing workplace risk for those in high-risk roles has been a priority area for us and BALCO has launched a project which addresses this comprehensively. BALCO's XR Experience Zone uses Augmented Reality, Virtual Reality and Mixed Reality technologies to train employees by creating a realistic, simulated experience of high-risk activities within a controlled environment.

The simulated exercises and situations that are provided as part of this training exercise are deeply immersive, and help employees develop the skills and reflexes intuitively, better preparing them for work in high-risk, high-hazard jobs like working at heights, without facing any physical risk. The simulated conditions under which employees can train and hone their skills have a number of benefits, like:

- Engaging mode of training with hands-on experience

- Builds muscle memory in ways that are not possible via passive classroom trainings

- Provides ability to analyse user behaviour via performance and analytics through competency assessment

- Provides a safe environment to practice before putting workers in the actual physical environment

- Avoid incidents that may result from learners' unsafe behaviour or learning mistakes, thus enabling employees to learn from their mistakes

The project has proved to be highly successful both in terms of reducing workplace incidents and through improved financial returns. The initial project setup, which included the installation of virtual reality equipment at two units, involved a total spend of Rs 700,000. The return on investment has been manifold, with savings worth Rs 1,868,00,000 generated. These savings have originated as a cumulative result of the implementation of heightened safety measures and the virtualized, real life-approximated training, which has reduced the number of accidents, lost mandays and compensation payouts, and significantly minimized equipment damage.

For the implementation of this initiative, BALCO won the Platinum Award at CII-IQ National Safety Competition 2022, in the category of safety digitalization. The stupendous success of this project has strengthened our intent of scaling up such safety training exercises across the organization with the help of virtualized technologies. In this way we are also giving shape to Vedanta's vision of being a digital-first organization.

Bharat Aluminium Company Limited
Awarded as 'Platinum Winner' In
5th CII-IQ National Safety Competition
Under the category
Safety Digitalization

BALCO's XR Experience Zone is the first programme of its kind within the Vedanta Group and fills the much-needed gap of virtual reality-based training for employees in high-risk activities. By training employees in simulated risk-prone conditions it not only sharpens their skills and reflexes within safe and controlled settings, it has also generated substantial cost savings to the tune of Rs 186.8 millions.

Gems of wisdom

Experts' guidance on safety

To enhance employees' understanding of various health and safety subjects, safety webinars are regularly organized for the entire staff. These webinars feature an expert from the field who shares knowledge and insights on different aspects of maintaining a safe and secure working environment. The webinars serve as a platform for employees to gain a deeper understanding of important safety topics, enabling them to make informed decisions and take preventive actions that promote safety and well-being in the workplace, on a daily basis.

Aim 8

Promote gender parity, diversity and inclusivity

Key Material Issues

Diversity & Inclusion, Talent Attraction and Retention, Learning & Development, Labor Practices

5 GENDER EQUALITY

Embracing diversity and fostering an inclusive work environment helps to create a vibrant workplace that is open to new ideas and is adaptable to a changing world. It also opens us a much larger talent pool for us and we are able to attract and retain the best talent.

Workplace diversity helps build a culture that is welcoming of differences, promoting qualities of assimilation and collaboration and recognizing what is best in people. Employees feel valued in such an environment, increasing productivity and reducing attrition. Today, many governments and regulatory bodies have created policies and laws promoting equality and diversity in the workplace. There are corporate reporting requirements related to diversity and inclusion, and failure to meet these may lead to legal consequences, financial penalties, and reputational risks. These concepts have thus moved much beyond philosophies or good-to-have goals to full scale requirements, with targets and responsibilities attached across different levels of the organization.

Vedanta has championed equality of opportunities and diversity and inclusion within our company for we firmly believe in its positive impact in making our people open to challenges, and helping enrich their perspectives and experiences.

At Vedanta we have put in place policies that ensure equal opportunities for all. At the time of recruitment, and during their time as an employee the organization assesses each individual strictly on the grounds of merit. No distinction is made on the basis of caste, religion, race, gender identity, sexual

orientation, disability, etc. We firmly believe in fostering an inclusive and diverse environment, and recognize and respect our employees for their abilities, potential and achievements alone. All other considerations are immaterial at our workplace and we actively promote a work culture that celebrates and reinforces high performance.

Vedanta has an internal Code of Conduct (CoC), which is part of the onboarding processes that new recruits are taken through. The CoC encapsulates our company's policies and work principles and every employee is required to be familiar with it and to observe it. Our anti-harassment policy is part of the CoC and is diligently upheld across all levels. In case of complaints of harassment, we have appropriate mechanisms for addressing such grievances, deterring the recurrence of misbehaviour and penalization of the offender.

Awarded Great Place to Work for the second consecutive year

Great Place To Work®

Gender Parity

We have instituted a policy for lateral hires that mandates that 50% of all new hires should be women, helping us remain committed to our goal of maintaining a 50% gender diversity ratio at the time of hiring. To ensure that we

get the best kind of talent from both genders, we regularly recruit outstanding talent from top-ranking campuses in our country.

A number of initiatives are underway to facilitate the practice of gender equality and parity within the organization and to help in ensuring that adequate numbers from both genders are recruited and integrated across levels. Several initiatives like V-Lead, SheLead, Pragati, Tarang are underway under direct Board oversight and these are strengthening our efforts in promoting gender equality. These programmes are designed to mentor, train, guide and promote our talented women professionals so that they earn their rightful place within the organization.

To ensure that equality and diversity remains an abiding organizational priority that sees real-time outcomes, we have integrated key performance indicators (KPIs) into our Environmental, Social, and Governance (ESG) framework. These KPIs serve as benchmarks to drive continuous improvement. When evaluating candidates with similar skillsets, we prioritize the inclusion of deserving women, in a bid to balance our workforce that has historically been gender skewed due to the paucity of women in the manufacturing and metals and mining industry and other socio-economic factors.

Workforce Breakdown: Nationality

India 91.91% 91.32%	**US** 0.03% 0.03%	**Zambia** 0.02% 0.02%
South Africa 7.90% 8.48%	**Canadian** 0.02% 0.02%	**Bahrain** 0.01% 0.01%
UK 0.04% 0.04%	**Nepal** 0.02% 0.02%	**German** 0.01% 0.01%
Zimbabwe 0.03% 0.03%	**Namibia** 0.02% 0.02%	

■ Share in total workforce (as % of total workforce) ■ Share in all management positions (P to M10)
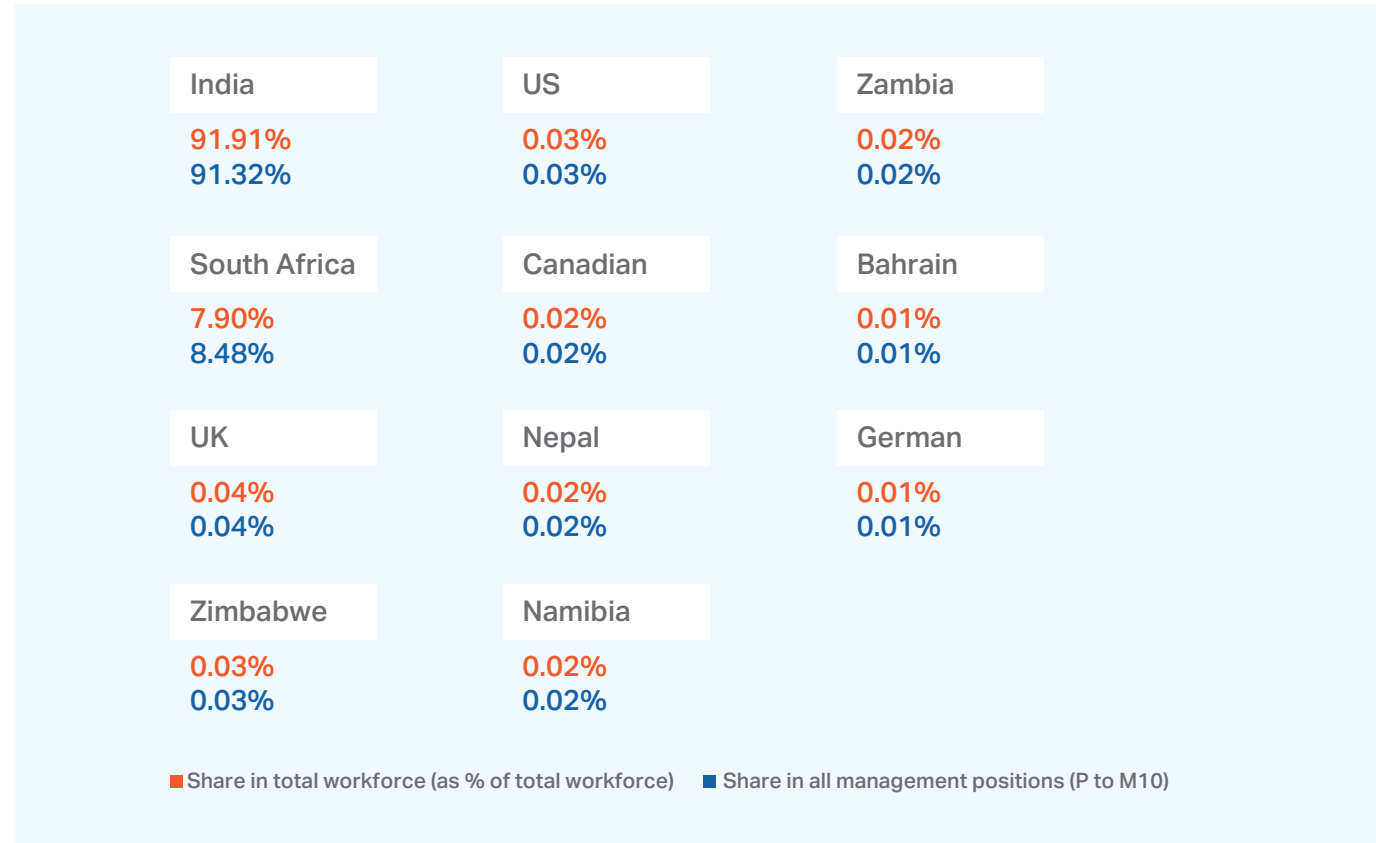
Remuneration Ratio Female to Male

Ratio of average Renumeration: 0.86 / 0.84 / 1.22
Ratio of average Basic Salary: 0.85 / 0.84 / 1.23

■ Remuneration ratio of Female to Male Junior Management Level (M6 and Below)
■ Remuneration ratio of Female to Male Management Level (Middle Management)
■ Remuneration ratio of Female to Male Executive Level (Top Management)
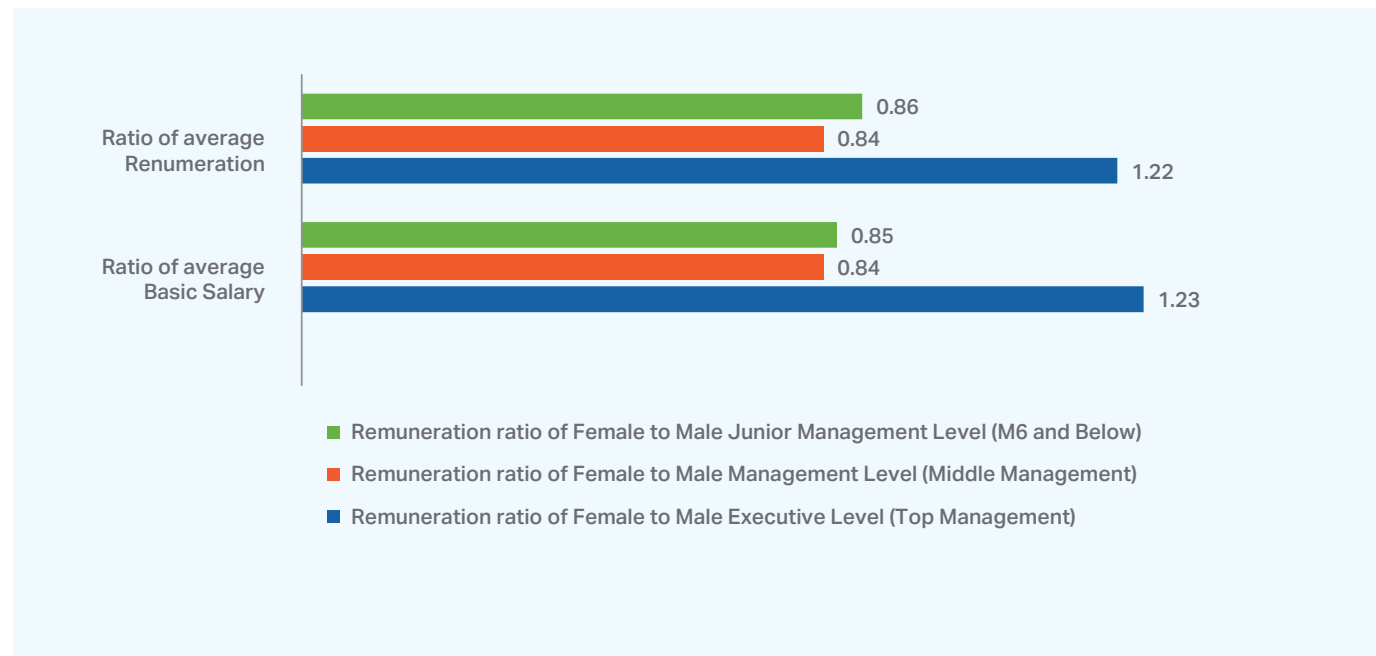
Elevating Women in Workforce

We have implemented programmes designed to support and develop women professionals to take on greater responsibilities and advance in their careers. Through these interventions we provide targeted mentoring, guidance, and support to a select group of women leaders. These women are aligned with senior leaders or mentors who provide valuable insights, advice, and expertise that helps them navigate their career paths and overcome challenges.

We provide an overview on some of our leading initiatives in the area of workplace equality and diversity.

V Lead: Empowering Women Leaders at Vedanta

Vedanta Group's leading Women Leadership Development Program, V-Lead underscores the organization's unwavering commitment to promoting gender diversity, inclusion, and women's empowerment. The primary objective of this program is to identify and nurture aspiring female leaders within the group, with a specific focus on cultivating women to assume top executive positions, commonly known as CXOs. Through a meticulous selection process, 120 exceptional young female leaders were handpicked from a large talent pool consisting of over 720 women out of our total female population of 2387. These selected individuals have undergone extensive grooming and mentoring to equip them for future leadership roles, not only within the company's domestic operations but also in international business units. This initiative aims to empower women, elevate their professional status, and contribute to the overall success and growth of the Vedanta Group.

This program gave a very positive outcome, we were able to increase the share of women in leadership roles. The percentage went up from 7.7% in FY22 to 9.2% in FY23, which we believe is a massive leap given the fact that metal and mining sector has been a male dominant sector and Vedanta's development program like these, are able to bring a big change.

Workforce Breakdown: Gender

Diversity Indicator

20%
FY 2030 Target

14%
Gender diversity
(Fulltime employees)

23%
FY 2030 Target

21.30%
Share of women in junior management
positions, i.e., first level of management
(as % of total junior management positions)

14%
FY 2030 Target

11.80%
Share of 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.)

18%
FY 2030 Target

18.30%
Share of women in all
management positions,
including junior, middle
and top management
(as % of total management
positions)

12%
FY 2030 Target

9.20%
Share of women in top management
positions, i.e. maximum two levels
away from the CEO or comparable
positions (as % of total top
management positions)

13%
FY 2030 Target

15.70%
Share of women in STEM-related positions
(as % of total STEM positions)

■ Performance in FY 2023

Easing the transition to work for new mothers

Motherhood places several demands on the new mother, who very often has to balance multiple priorities. At Vedanta, we understand these needs and are committed to making motherhood a smoother experience.

Our human resource practices are guided by Vedanta's core value of Care and we strive to create a supportive and inclusive workplace that accommodates the various stages of our employees' lives. We offer flexible working hours to support new parents, recognizing the time and space they need to adjust to their new roles. As a result of the supportive environment, of women who had taken maternity leave chose to continue in their roles even 12 months after rejoining work, reflecting the support they received in childcare and the overall atmosphere of cooperation.

Our mentoring programme 'Buddy' system is a case in point. As a part of this, experienced senior women colleagues who have passed through similar life experiences, provide guidance and support to new mothers in making decisions related to their career and personal choices.

Several subsidiaries like ESL, VZI and HZL have launched empathetic programmes for new mothers, empowering them to handle their responsibilities more easily. These initiatives are diverse in nature, and include provision of onsite day care facilities for young children, breast feeding / lactation facilities, paid parental leaves, amongst others.

Day care centres

ESL and HZL are providing day care centres onsite where new mothers can leave their infants and young children in safe hands and under proper supervision. This helps eligible employees enjoy peace of mind as they are close at hand in case of need, while they can simultaneously fulfil their professional responsibilities. To ensure that all our eligible employees get to utilize the convenience of the onsite child care centres, HZL provides a fixed sum as child-care contribution for the day-care of the child.

Breast-feeding/lactation facilities

ESL and HZL provide onsite breast-feeding/ lactation facilities in the child care centres where women can freely breast feed their newborn in a private, comfortable and hygienic environment. At VZI, we provide lactation room facilities to new mothers, as an enablement initiative, despite there being no regulatory requirement in South Africa. These lactation rooms can be used upto a period of 12 months for an individual infant, with the mother required to bring her own equipment for availing of these facilities. At these subsidiaries, daily nursing breaks are also provided within the timeframe of a working day to accommodate the new mothers' breastfeeding needs.

Paid parental leaves

Vedanta provides paid parental leaves for both primary and secondary caregivers, with 26 weeks of paid leave provided to female employees, 7 days to male employees. Additionally, keeping in mind the needs of those mothers who go in for adoption we also provide 12 weeks of adoption leave to female employees who have adopted a child.

SUSTAINABILITY REPORT FY 2023

☰

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Three-tier approach to sensitization promotes greater assimilation

We have initiated a comprehensive sensitization campaign that focuses on various dimensions of Diversity, Equity and Inclusion (DEI) encompassing gender, sexual orientation, physical ability and regional/ethnic diversity. This campaign follows a structured three-tier approach, focused on CXOs, managers, and front-end supervisors. To ensure its effectiveness, we have collaborated with external experts who specialize in facilitation of such assimilation. In the first phase, our goal is to reach over 2,000 managers and 300 CXOs, equipping them with the necessary knowledge and stimulating the appropriate sensibilities necessary for creating an inclusive and respectful workplace.

CXOs

Managers

Frontline supervisors

Gender sensitisation programme helps to mainstream transgender hiring

To reinforce our commitment towards creating a discrimination-free and inclusive workplace and to promote supportive behaviour within our organization, we have launched 'Samanvay', a group-wide gender sensitization and awareness drive that helps managers understand unconscious biases, address them and maximize inclusion within teams. The programme aims at facilitating the seamless inclusion of LGBTQ+ individuals into the mainstream at the workplace. Other enabling initiatives that we have undertaken include identifying specific roles, providing sensitivity training, creating appropriate infrastructure and ensuring a smooth onboarding process for

LGBTQ+ talent. Currently, we are proud to have 25 transgender employees who are an active part of the organization.

Number of transgenders in workforce

25 | **4**
FY 2023 | FY 2022
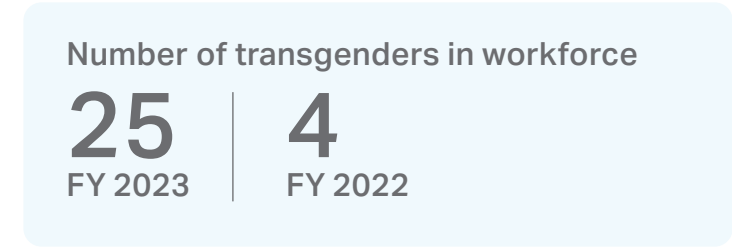
Parental leave distribution

Total Number of Employees that were entitled to Parental leave during April 2022-March 2023

Male
10,263

Female
1,939

Number of employees who resumed office post completion of paternal leave in April 2022-March 2023

Male
469

Female
83

Total number of employees who are due to return to work in April 2022-March 2023, after taking parental leave

Male
469

Female
84

Return to Work Rate

Male
100%

Female
99%

Total Number of Employees who took Parental leave during April 2022- March 2023

Male
470

Female
89

No of employees who were in continuous service for next 12 months after returning from Parental leave in April 2022- March 2023

Male
432

Female
52

Total number of employees returning from parental leave in the prior reporting period

Male
472

Female
62

Retention rate

Male
90%

Female
84%

BALCO: Creating a Transgender-Inclusive Workplace

BALCO has taken significant strides towards fostering diversity and inclusion by implementing initiatives that promote equality and acceptance of transgender individuals. The attempt is to create a discrimination-free environment. Under this programme, BALCO offers domestic partner benefits, recognizing and supporting diverse family structures.

Sponsorship of Affinity Groups and LGBTQIA+: Friendly Practices

BALCO actively sponsors affinity groups to provide a supportive network for LGBTQIA+ employees. These groups play a crucial role in fostering inclusivity, promoting dialogue, and sharing experiences within the organization. Additionally, the company has enacted other LGBTQIA+-friendly practices to ensure a welcoming atmosphere for such employees.

Infrastructure Improvements and Facilities for Transgender Individuals

Recognizing the importance of providing safe and comfortable spaces for transgender employees, BALCO has made several infrastructure improvements. The HR department oversees the provision of gender-specific facilities and amenities as part of the transgender person's recruitment process. These steps not only help to address the unique needs of transgender individuals, they endear these employees with the organization and foster their well-being and greater productivity.

Grievance System and Accountability

An online grievance system portal has been established where employees can report any violations of the company's policies. In cases of discrimination or harassment, the HR department ensures that grievances are dealt with fairly and commensurately, without any discrimination. All management personnel bear responsibility for implementing and upholding these policies, creating a culture of accountability throughout the organization.

Recruitment and Training Programs

BALCO has successfully hired transgender employees in various roles within the organization. By engaging four transgender individuals to operate forklifts in its Cast House and three in security roles, BALCO became the first company in Chhattisgarh to make such hires. To ensure job readiness, BALCO provides structured safety training, equal opportunity training sessions, shop floor and technical training, tailored to the needs of transgender employees.

Creating Inclusive Policies and Practices

BALCO recognizes the importance of adapting its policies, practices and facilities to include the needs of transgender individuals and to minimize negative impacts. The company has been progressing on this path with an open mind and empathetic intent, while continuing to respect the privacy of transgender individuals.

Future Outlook

BALCO's D&I initiatives have had significant impact towards creating a transgender-inclusive workplace. But there is still a lot of work to be done. BALCO recognizes the importance of job readiness, retention, and growth opportunities for transgender employees. The company intends keeping the door wide open for talent from the LGBTQIA+ community. By doing so, BALCO reiterates its commitment to promoting equality, respect, and dignity for all employees and to driving positive social change.

Empowering the specially-abled

Vedanta provides support and specially-designed accommodations for our specially-abled employees so that they feel at ease in the workplace and are at their productive best. This includes making necessary workplace modifications, providing assistive technologies, and offering training programs tailored to their specific needs. Premises/offices accessed by people with disabilities (PwDs) are equipped with enabling infrastructure such as ramps, walkways, braille-enabled elevators, text-to-speech software for the visually impaired, washrooms with special facilities as per the requirements of Rights of Persons with Disabilities Act, 2016.

Additionally, we constantly work at promoting awareness and sensitization among our workforce so that they remain conscious about creating and supporting an inclusive and respectful work environment. Through such efforts, we are actively integrating the hiring of specially-abled employees into our business.

Employee with Disability

	FY 22	
20		1

	FY 23	
18		5
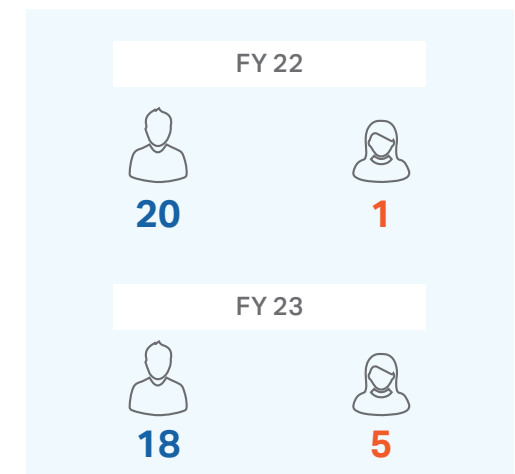
Business Partner with Disability

	FY 22	
18		0

	FY 23	
15		0

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

**TRANSFORMING
THE WORKPLACE**
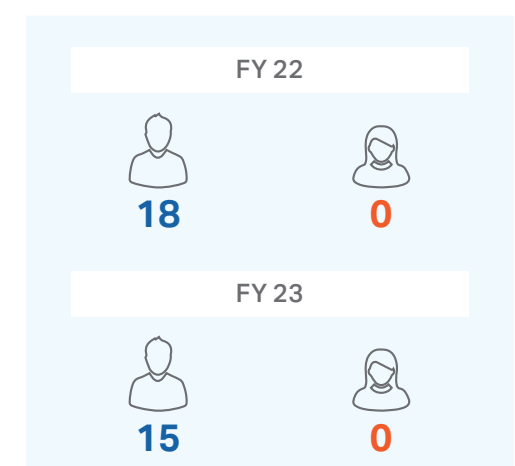
Aim 9

Adhere to global business standards of corporate governance

Key Material Issues

Business Ethics & Corporate Governance,
Risk Management and Controls, Data Privacy & Cybersecurity

Business ethics is a material topic as it directly impacts the company's reputation and the level of trust a company builds with their stakeholders. Ethical misconduct can create significant risks for a company. It can lead to reputational damage, loss of customers and investors, employee turnover, lawsuits, and financial penalties. By prioritising business ethics, Vedanta mitigates these risks and protects the long-term sustainability of its operations.

Ethical lapses, such as fraud, bribery, or non-compliance with laws and regulations, can result in legal penalties, reputational damage, and financial losses. Effective corporate governance is embedded in our code of business conduct and ethics (CBCE). It plays a crucial role in defining rules for professional conduct that are consistent with our values and purpose, risk management, promoting

ethical behaviour, and provides effective guidance for Vedanta's operations and strategy. At Vedanta, the objective of CBCE is to build positive stakeholder relationships through a well-defined framework of policies, standards, procedures, and obligations.

To facilitate specific responsibilities, the Board has established four

Statutory committees (Audit & Risk Management, Nomination & Remuneration, Corporate Social Responsibility Committee and Stakeholders' Relationship Committee), that play a crucial role in executing their designated tasks on behalf of the Board.

Corporate Governance Award conferred by the Indian Chamber of Commerce

SEVEN PILLARS OF VEDANTA

| Sustainability, Health, Safety & Environment | People | Values, Ethics & Governance | Digitalisation, Innovation, Technology & Excellence | Quality | Growth | Giving back to Community/ Society |

GUIDING PRINCIPLES

| Transparency and Accountability | Policies & Regulatory Framework | Managment/ Board and Committees | Values & Ethics | Monitoring & Internal Control | Executing Strategy & Managing Risk |

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

**TRANSFORMING
THE WORKPLACE**

Corporate Governance Framework

- Risk Management
- Governance
- Stakeholders
- Integrity & Transparency
- Compliance & Reporting
- ESG
- Strategy, Planning & Performance

VEDANTA LIMITED
Board Commmittees

Statutory Board Committees

Audit & Risk Management Committee	Nomination & Remuneration Committee	Corporate Social Responsibility Committee	Stakeholders' Relationship Committee

Special Committees

ESG Commitee	Share & Debenture Transfer Commitee	Committee of Directors

By delegating specific matters to each of these committees, the Board ensures that sustainability considerations are integrated throughout the organisation. This approach ensures that global standards, strategies, business plans, and remuneration plans are designed to foster strong sustainability performance at all levels of the company.

A comprehensive description of the Company's approach to corporate governance can be found in our Annual Integrated Report.

Upholding Integrity and Accountability through Policy Infrastructure

Strong corporate governance demands regular checks on actions and decisions before they're implemented by Vedanta. With integrity being one of its core values, ethical conduct is integrated into the business ecosystem. The following policies are in place and are part and parcel of Vedanta's initiative to promote transparency and integrity.

Anti-Corruption & Bribery

Political Activities & Personal Political Contributions

Conflict of Interest

Prevention of Fraud

Fair Dealing

Anti-Money Laundering

Reporting Violations

Vedanta establishes that business decisions are made objectively and with the organisation's best interests in mind, and that relationships with stakeholders do not compromise independent judgment. Emphasis is placed on ensuring employees prioritise the Company's interests and avoid conflicts of interest. Employees are required to disclose and report potential conflicts of interest, promote transparency and integrity through policies, such as refraining from offering or accepting bribes, avoiding conflicts of interest with other employees, reporting any potential conflicts of interest, and abstaining from unfair or anti-competitive trade practices.

Reporting Concerns

Vedanta upholds a strong commitment to ethical conduct and expects every employee to adhere to the company's Code of Business Ethics and policies. It is the responsibility of each employee to ensure that their own behaviour and that of their subordinates align with these standards, and that any known or suspected breach of the Code or applicable laws, rules, regulations, or policies must be reported immediately to a supervisor. In the case where reporting to a supervisor is uncomfortable, employees have the option to use the Whistleblower Policy by anonymously reporting to sgl.whistleblower@vedanta.co.in.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

The treatment of complaints within Vedanta Limited follows a systematic approach; from addressing complaints and conducting thorough investigations, to providing periodic reports to the relevant authorities and management by the following process:

Review and Investigation → **Cooperation and Input** → **Reporting**

- The Head of Management Assurance reviews the complaint and may conduct the investigation personally or assign it to another employee, committee, outside counsel, advisor, expert, or third-party service provider
- The assigned investigator may work under the direction of the Head of Management Assurance or in conjunction with other attorneys during the investigation

- The individuals named in the complaint are expected to cooperate with the investigator
- They have the right to provide their inputs and present their side of the story during the investigation

- The Head of Management Assurance submits a report to the Audit Committee and any other designated members of company management
- The report is submitted at least once every six months, or whenever deemed necessary
- The report summarizes each complaint made within the last 12 months and includes the following
- Identification of the complainant (unless anonymous, which will be indicated)
- Description of the complaint's substance
- Status of the investigation
- Conclusions reached by the investigator
- Findings and recommendations resulting from the investigation

Reporting on Breaches

Corruption or Bribery	Conflicts of Interest
14	4

Discrimination or Harassment	Money Laundering or Insider trading
7	0

Customer Privacy Data	
0	

Breaches in FY 2022-23

Data Privacy and Cybersecurity

A cybersecurity breach or data privacy incident can have severe financial and reputational consequences for Vedanta. The costs associated with investigating and remediating a breach, potential legal liabilities, regulatory fines, and the loss of customer trust and confidence can significantly impact the Company's bottom line and brand reputation. Data privacy and cybersecurity are crucial to protect sensitive information, comply with regulations, mitigate cyber threats, maintain stakeholder trust, and prevent financial and reputational damage. By prioritising these areas, Vedanta can ensure the confidentiality, integrity, and availability of its data and systems, enabling sustainable business operations in an increasingly digital world.

In the era of digital advancements, cybersecurity is imperative, given the interconnected nature of our global society. The exponential growth of the internet and smart devices has heightened the vulnerability of businesses to cyberattacks. It is no longer a question of "if" a business will face such threats, but rather a matter of "when." Safeguarding information systems and data has thus become a paramount concern for Vedanta.

The Company deeply understands the significance of cybersecurity and have identified it as a primary risk within its comprehensive enterprise risk management framework. Vedanta acknowledges that the potential impact of cyber threats extends far beyond the organisation; it can affect individuals, the environment, communities, and even its operational performance. Through robust measures and continuous efforts, the Company strives to ensure the resilience and integrity of its information systems, minimising the risks posed by cyber threats.

Vedanta's robust information security framework includes policies, standard operating procedures (SOP), technology standards and an effective security assessments and audit process to prevent cyberattacks. In FY 2022-23, Vedanta experienced zero cybersecurity breaches.
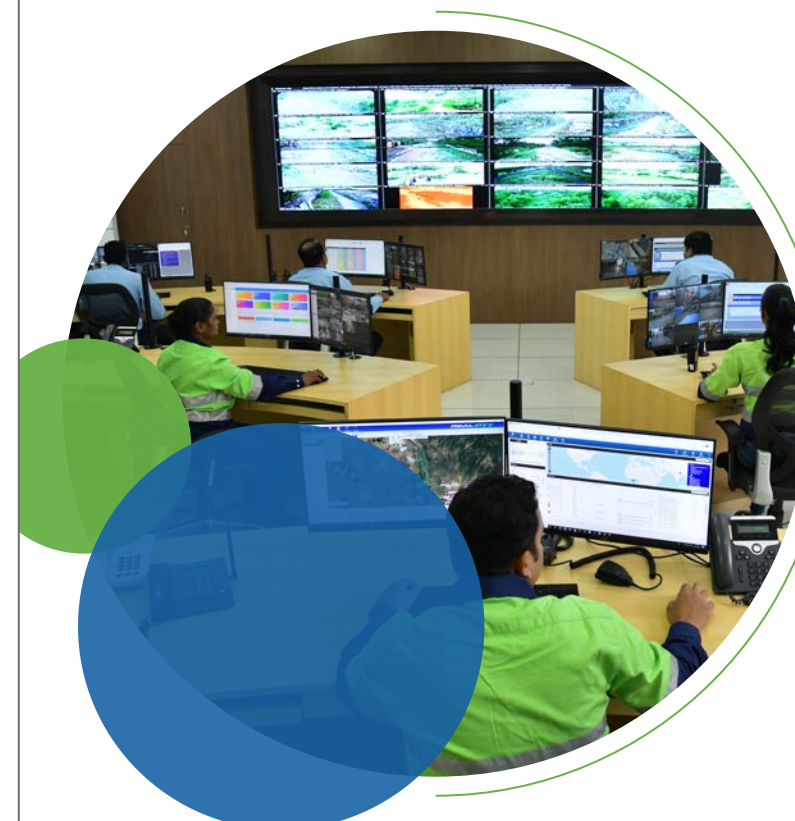
Information Security Policies and Certifications

We have established an information security policy and data governance policy, covering aspects such as information security, risk management, disaster recovery, business continuity management, and data privacy. These policies form an integral component of Vedanta's Information Security framework, showcasing the Company's dedication to robust management practices. Business continuity/contingency plans and incident response procedures are in place that are tested bi-annually. Regular trainings for our employees on cybersecurity are conducted.

Policies defined by Vedanta are categorised under the following areas:

- **Information Security Management Policies**
- **Data Governance & Privacy Policies**
- **Risk Management Policies**
- **Business Continuity Management Policies**
- **Incident Response & Emergency Preparedness Plan**

Vulnerability Assessment

Vulnerability identification, monitoring and tracking of mitigation actions and continuous compliance level are being done through various assessments. Vedanta carries out and undergoes the following assessments to identify vulnerabilities, threats, short-comings, and the associated risk/impact:

a) Internal Vulnerability Assessment and Penetrating Testing (VAPT) Program undertaken by BU Information Security Function (Through Third-Party Expert Agency)

b) External Vulnerability Assessment and Penetrating Testing (VAPT) Assessment through Group Management Assurance System (Through Third-Party Expert Agency)

c) Red Teaming Exercise as part of point # 2

d) Surveillance Audit under ISO 27001, ISO 22301, ISO 31000, and ISO 27701 Framework Requirements (Through Surveillance Audit Partner)

e) Assessment of IT General Controls (ITGC) by Statutory Auditor under Sarbanes-Oxley (SOX) Compliance Framework (Through Statutory Auditor)

These vulnerability assessments, including simulated hacker attacks are carried out on an annual basis by globally reputed and recognised third-party agencies, including a team of certified and qualified personnel in various domains of cyber security and data governance.

BUs have obtained ISO certifications and are committed to establishing, implementing, maintaining, and continuously improving their Integrated Management System (IMS) in alignment with the standards set forth by ISO 27001, ISO 27701, ISO 22301, and ISO 31000. 71.43 % of our IT infrastructure is certified as per ISO 27001

Business Unit/Group	ISO 27001 implementation status	ISO 22301 implementation status	ISO 31000 implementation status	ISO 27701 implementation status
Cairn	√	√	√	√
HZL	√	√	√	√
VZI	√	√	√	X
BALCO	√	√	√	X
JSG	√	√	√	X
LAN	√	√	√	X
TSPL	√	√	√	X
ESL	√	√	√	X
IOB	√	√	√	√
FACOR	√	√	√	√
VGCB	√	√	√	√
Nicomet	√	√	√	X
Sesa Coke	√	√	√	X
Gujrat NRE	√	√	√	X
Desai Cement	√	√	√	X
Sterlite Copper	√	√	√	√
Fujairah Gold	√	√	√	X

Third-party certifications and assessments are also conducted twice a year.

Certification/Assessment	Service provider
Internal Vulnerability Assessment and Penetrating Testing (VAPT) Program, including stimulated hacker attacks	Information Security Function through a third-party expert agency
External Vulnerability Assessment and Penetrating Testing (VAPT) Assessment	Group Management Assurance System (through Third-Party Expert Agency)
ISO 27001, ISO 22301, ISO 31000, and ISO 27701	Surveillance audit conducted through an audit partner

Awareness and Capacity Building

As part of the onboarding process, all new joiners at Vedanta are required to attend mandatory cybersecurity training to ensure their awareness and understanding of security protocols. 100% of our employees are trained on cybersecurity. In addition, an Online Awareness Training Capsule is made available on a self-service basis. The Information Security function closely monitors and tracks the training status of users, conducting periodic follow-ups to promote completion. Virtual Classroom sessions are also organised periodically, allowing voluntarily participation and self-nomination for further training. To assess the level of user awareness, BUs conduct Dip-Stick Assessments in the form of periodic tests and quizzes. Based on the effectiveness of these assessments, targeted trainings and communications are conducted throughout the organisation. Phishing simulations are carried out for all users to evaluate their vigilance and awareness.

Lessons learned from these simulations are shared with the users, while individuals who fall prey to the simulations are required to undergo specific phishing training videos for further learning.

Performance Evaluation and Reporting

Each employee in the IT function has well-defined KRA/KPI, in line with Vedanta's Information Security Goals as part of their Annual Goals and Performance Management process and requirements.

Performance evaluation of Information Security is carried out based on the following aspects:

- People
- Process
- Technology

Performance of the employee is measured against these goals. Similarly, employees working on OT environment and managing such systems also have KPI aligned to Vedanta's Information Security Goals in their Annual KRA/KPA Plan.

Incident Reporting

Security incidents are addressed by diligent tracking and monitoring until resolution. A comprehensive root cause analysis is conducted, and action plans are developed to mitigate future incidents. We have a well-defined Incident Management & Data Breach Policy communicated to all stakeholders. To facilitate incident reporting, Vedanta has a centralised email address for reporting suspicious activities related to information security.

Incidents are generated through various channels, including 24/7 monitoring of critical IT assets, daily monitoring of data movement using data leakage prevention tools, incident reports from end users, and internal security organisation observations.

Each reported incident is thoroughly investigated by the Chief Information Security Officer (CISO), and appropriate actions are taken. Vedanta uses advanced tools and technologies to continuously monitor IT assets and data movement, automatically generating incidents based on predefined rules. These incidents are then tracked and resolved by the IT Operations Team with guidance from the Information Security Organization.

During the reporting period, no incidents of leaks, thefts, or data loss were identified, resulting in no impact on clients, customers, or employees.

Escalation Process

Vedanta diligently tracks and monitors all security incidents, ensuring they are thoroughly investigated, and actions are taken for their resolution. To encourage reporting, Vedanta's BUs have established a central email address:, gc@vedanta.co.in, where users can report any suspicious activities related to Information Security. Reported incidents undergo investigation by the Chief Information Security Officer (CISO), and appropriate measures are implemented to address each incident. Incidents reported through the Security Information and Event Management (SIEM) system by employees and end users are evaluated by the BU's CISO and further reviewed by the BU's Chief Information Officer (CIO). Data incidents reported through Data Loss Prevention (DLP) systems and by end users are evaluated by the BU's Data Governance and Privacy Officer (DGPO)/BU's CISO and reviewed by the BU's CIO. The severity and impact of these incidents and observations are reported and discussed in various forums, including the BU's Executive Committee (EXCO), Vedanta Group's Executive Committee (EXCO), the BU's Audit & Risk Committee, and Vedanta's Audit & Risk Committee. Compliance with agreed-upon observations is reported on a quarterly basis to ensure timely and effective resolution.

Risk Management and Controls

Given Vedanta's global operations, its businesses are exposed to a diverse range of risks. Having a risk management system in place allows the Company to identify, understand, and prevent or minimise the occurrence of low-probability, high-impact accidents, and emergencies with significant potential environmental and social externalities. Implementing effective risk management and control measures ensures compliance and mitigates operational risks. Vedanta's robust risk governance framework focuses on the management of issues inherent to the business model or common practice in the industry that are in potential conflict with the interest of broader stakeholder groups. By doing so, it aims to avoid potential liabilities or any risks that could limit or even lead to the loss of our license to operate.

Risk Management Process

The group enterprise risk management system is crafted to ensure effective management of risks that Vedanta's businesses are exposed to through regular business-level review meetings, and are conducted at least once every quarter.

These meetings serve as a platform for each business division to review their specific risk matrix, which is further evaluated by the Business Management Committee. Each business division maintains their own risk registers to track and monitor risks. During these meetings, respective businesses thoroughly review the identified risks, any changes in the nature and extent of major risks since the last assessment, and the effectiveness of existing control measures. The control measures outlined in the risk matrix are periodically reviewed by the business management teams to ensure ongoing effectiveness.

Chaired by the CEOs of the respective business, these meetings are attended by CXOs, senior management, and concerned functional heads. To develop and nurture a risk management culture within the businesses, Risk Officers are appointed at each business level and at the Group level.

External | Strategic
Evaluate | Mitgate
Identify | Group Risk Management Framework | Monitor
Financial | Operational
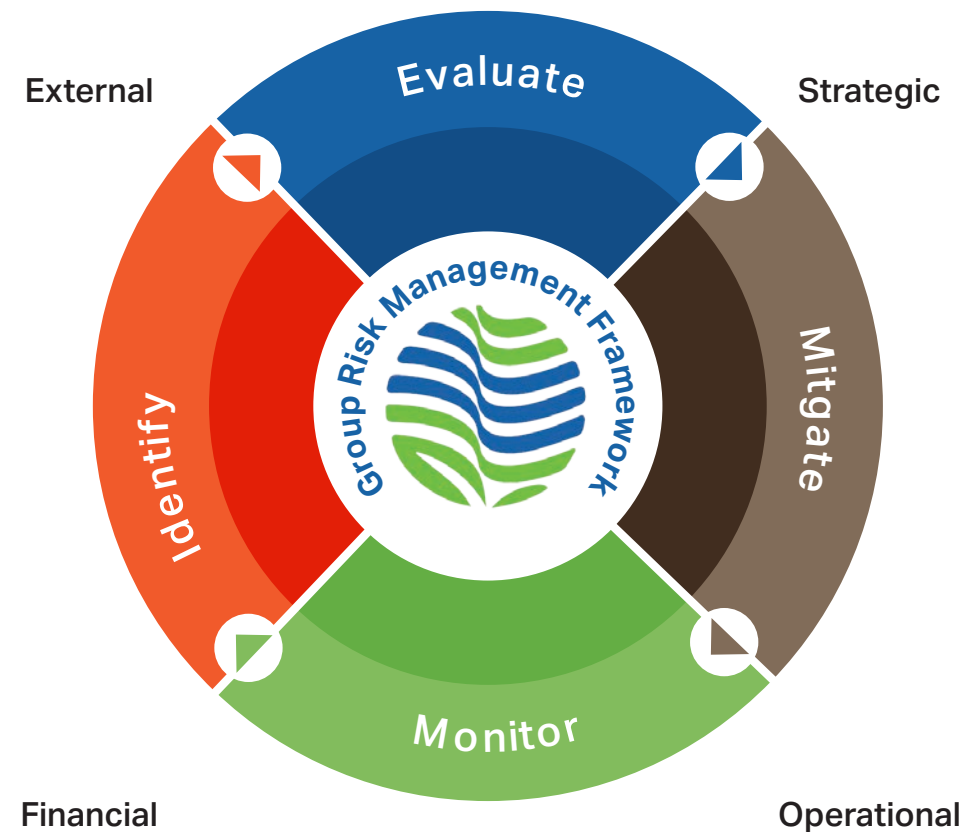
ESG Risk Governance

As a natural resource company, Vedanta experiences risks that are beyond operations, compliance, and finance. These risks are related to material impact on environmental, social and governance aspects of the business. ESG risks related to sustainability are critical to the Company's sustainability strategy. Hence, the responsibility of identifying and managing these risks is given to the Chief Risk Officer, who is the member/chair of the Company's risk management committee.

In addition, the following key risk governance and oversight committees in Vedanta support the management of ESG risks:

- The Committee of Directors (COD), led by the Vice Chairman and Group CFO, provides support to the Board by examining, assessing, and granting approval for borrowing and investment proposals. These proposals fall within the limits authorised by the Board. The committee meetings are attended by the CEO, business CFOs, Group Head Treasury, and BU Treasury Heads, depending on the agenda.
- The ESG Committee focuses on reviewing sustainability-related risks, ensuring that environmental, social, and governance factors are effectively considered and managed within the organisation.

There are several Group-level Management Committees (ManComs) in place to address specific areas of focus. They include the Commercial ManCom, HSES & ESG ManComs, HR ManCom, Finance ManCom, and CSR ManCom. These committees are responsible for identifying risks in their respective domains and implementing appropriate measures to mitigate them.

The Management Assurance Services (MAS) plays a crucial role in ensuring the implementation of policies and processes aligned with management's performance goals and risk tolerances. They serve as a vital element of the internal control process, providing the Board with necessary assurance. This involves systematic assessment of measures, tools, and processes used to identify, evaluate, control, monitor, and report on risks. The Audit Committee regularly evaluates the scope, authority, and resources of the Management Assurance Services (MAS). As a result, an internal audit plan is developed with a risk-based approach, considering the risk matrix, insights from senior management, business teams, and the Audit Committee. Past audit experience, financial analysis, and the prevailing economic and business environment are considered during the planning stage.

ESG Risks

The Board, with support from the management, conducts periodic and robust assessments of principal risks and uncertainties through an annual materiality assessment, which are then integrated into Vedanta's enterprise risk management framework. These risks can be economical, environmental, geopolitical, societal, or technological depending on their long-term impact on Vedanta's business.

Emerging Risks

Emerging Risk	Prolonged Global economic recession due to climate change	Resource Nationalism
Category	Economic	Geopolitical
Description	Economies are very sensitive to prolonged shocks such as supply chain disruptions, war & conflict, and pandemics among other factors. Historically, these shocks have occurred in isolation. As climate change becomes more pronounced and more frequent, we anticipate that climate change impacts combined with other shocks can significantly hamper global economic conditions. For example, economic downturn in developed markets such as China have impacted global demand for metals. Combined with the impacts of frequent extreme weather events such as flooding and drought, the damage to the economy is in billions of dollars, which may send the global economy into a prolonged recession. The collective impact of these events can result in a decline in demand for our products & impact the overall financial performance of the company.	The geographic distribution of numerous metals and minerals has ensured a degree of mutual interdependence. For example, Brazil has scaled lithium, rare earth elements and nickel production, but has remained dependent on others for refining and on neighbours for other resources such as copper and cobalt. Yet resource nationalism has also driven cracks with disputes arising first around the application of state aid to boost domestic mining and processing industries. The expanding use of the national security exemption at the WTO has also increasingly paralysed multilateral trade mechanisms, rendering them ineffective in addressing geopolitical confrontation in a world where local resilience and security is prioritized over comparative advantage and efficiency. Export constraints on minerals have placed upwards pressure on broader international governance and enforcement mechanisms that oversee new exploration zones – including those relating to mining.
Impact	A prolonged global recession due to climate change, combined with other macro-economic factors, will impact the demand of our products as well as the LME prices. This will significantly impact the revenue as well as the cost of raw materials procured.	State intervention has become more common and stringent, with government planning directly and indirectly allocating available resources for prioritized industries. Also, in many cases due to factual or perceived shortages, states quickly and regularly exercise control over key resources to protect their own population. For example, state intervention could impact aspects related to access to minerals, taxation rates, profit-sharing agreements, etc, with a resultant impact on the company's revenue sources.
Mitigating actions	Key mitigation measures include: a) Identifying alternative markets for our products. b) Assessing supply chain impact and dependencies. c) Establishing long-term agreements with our customers as well as suppliers. d) Diversification of products and markets.	Key interventions include: a) Diversification of businesses averse from resource nationalism impacts b) Public Advocacy with governments and industry associations. c) Ensuring stakeholder engagement at every stage of the project lifecycle d) Strict vigilance on compliance to national regulations

There are other unprecedented risks to operations that is significant with respect to the long-term impact on Vedanta's business activities, listed below. While these risks may not have a clear financial impact, their potential impact on the Company's business is already assessed, and mitigation strategies are already developed for each risk.

Risk Culture

Effective risk management helps us prevent incidents that could harm Vedanta's reputation, stakeholder trust, and social license to operate. By addressing risks proactively and transparently, the Company aims to maintain positive relationships with stakeholders, including local communities, regulators, and investors.

Vedanta's commitment to risk management is upheld by all employees and executives, as reflected in the code of business conduct and ethics and annual trainings. At Vedanta, risk mitigation plans are an integral part of the Key Result Areas (KRAs) and Key Performance Indicators (KPIs) of process owners. Leadership teams within each business division oversee the governance of our risk management framework, ensuring its proper implementation and continuous effectiveness.

By actively addressing risks, embracing Vedanta's strategic objectives, and implementing mitigation plans, the Company strives to maintain positive relationships with stakeholders and ensure the long-term success of the organisation.

Read more in the risk management section of the Annual Integrated Report FY 2022-23.

Compliances, Audits and Controls

Compliance, audits and control is to ensure that an effective audit and assurance programme is in place in relation to the management of sustainability-related risks and overall sustainability performance. This includes having a system that evaluates conformance to Vedanta Group requirements, the Company and operations requirements, stakeholder requirements and regulatory requirements where applicable. It provides assurance to the Board and its stakeholders that sustainability risks are being managed appropriately and to a consistent level across the business.

Public Advocacy

Organisation and Membership

Vedanta is a member of several industry associations that share common goals. The Company and associations routinely work together to advance public policies of interest to Vedanta and the natural resources industry. In FY 2023, INR 15.8 billion was spent on membership fees to industry and trade associations, and sponsorships to the events organised by these associations. Electoral bonds worth INR 1.55 billion was purchased.

Industry Associations	Thinktanks & Subject-matter expert Organisations	Academic Institutions	NGOs and Civil Society Organisation	
Aluminium Association of India	Quality Circle Forum of India	IIT Madras	Wockhardt Foundation	Charbhuja Filling Station
Federation of Indian Mineral Industries (FIMI)	National Safety Council	IIM Sambalpur	Action for Food Production	Middle East Council of Churches (MECC)
International Zinc Association	TERI	IIT Bombay	Drishtee Foundation	Barmer Jan Sewa Samiti
Confederation of Indian Industry (CII)	United Nations Global Compact	ISB Hyderabad	Sarthak Jan Vikas Sansthan	IPE Global
FICCI	UN Women's Empowerment Principles	IISc Bengaluru	Learnet Skills limited	Paralympic Committee of India
ASSOCHAM	IUCN – Leaders for Nature	BITS Pilani	BAIF Development Research Foundation	GT Healthcare Trust
Indian Steel Association	British Safety Council	IIM Raipur	Sehgal Foundation	CHETNA Foundation
Federation of Indian Petroleum Industry	Indian Green Building Council	National Forensic Sciences University (NFSU), Gandhinagar	Swajal Pvt. Ltd	Navrachna Mahila Vikas Trust
The Federation of Indian Chambers of Commerce and Industry	Mine Ventilation Society of South Africa (MVSSA)		Waterlife	CEDRA
Minerals Council South Africa	Recycling and Environment Industry Association of India		Fontus	BODH Siksha Samiti
Mine Health & Safety Council (MHSC)			Rural Development Organisation (RDO)	HelpAge India
Association of Mine Managers (AMMSA)			Vodalife	
Recycling and Environment Industry Association of India			SEEDs	

Supply Chain Management

An agile and resilient supply chain helps Vedanta navigate unforeseen disruptions such as natural disasters, supplier issues, or market fluctuations. Diversifying suppliers, implementing contingency plans, and fostering strong relationships with key partners enhance Vedanta's ability to respond swiftly to challenges and maintain business continuity.

Integration of ESG in our Supply Chain

It is crucial for Vedanta to effectively address corruption, human rights violations, environmental impacts, climate change, and other risks that arise within its supplier network. By actively engaging with suppliers and gaining a deeper understanding of their operations and practices, the Company aims to proactively manage and address the associated risks. Vedanta recognises the significance of this task and is committed to implementing dedicated strategies and programmes to mitigate these risks.

The Supplier Code of Conduct (SCOC) serves as the guiding principle for all of Vedanta's engagements with suppliers and vendors, and is a mandatory adherence for all suppliers and vendors. The SCOC is comprehensive; it addresses various areas, including anti-corruption, human rights, health, safety, environment, climate change, and sustainability.

To uphold human rights laws and practices and ensure relevant legislations are being complied throughout Vedanta's supply chain, the Supplier and Contractor Sustainability Management Policy has been established. Periodic inspections are conducted at the Company's remote mine locations to monitor and address any potential violations. They verify proof of age for all contract workers, and employ radiological age identification processes to detect and address any instance of child labour violations. Training is provided for the Company's buyers and/or internal stakeholders on their roles in the supplier ESG programme.

Supplier Screening

Vedanta evaluates potential and current suppliers, before engaging in business partnerships or procurement activities based on company, sector specific and commodity specific risks. It is crucial to ensure that the Company works with reliable and reputable suppliers who can meet high standards of quality, safety, sustainability, and compliance.
When screening potential suppliers, Vedanta considers their performance on, business, HSE, human rights and climate change by assessing it against the criteria, such as the leadership commitment to performance in

HSE, necessary policies, and strategic objectives. The standards, and responsibilities of critical role holders are also considered. For risks related to human rights, suppliers need to declare their commitment to compliance with the Modern Slavery Act. This approach further helps to prioritise Vedanta's risk management measures for its suppliers. The Company also engages a third-party to conduct a risk assessment of their suppliers on various aspects, including regulatory compliance and compliance with the Modern Slavery Act (MSA). During supplier screening 20% weigtage is given to ESG parameters for and suppliers who do not qualify are not given contracts.
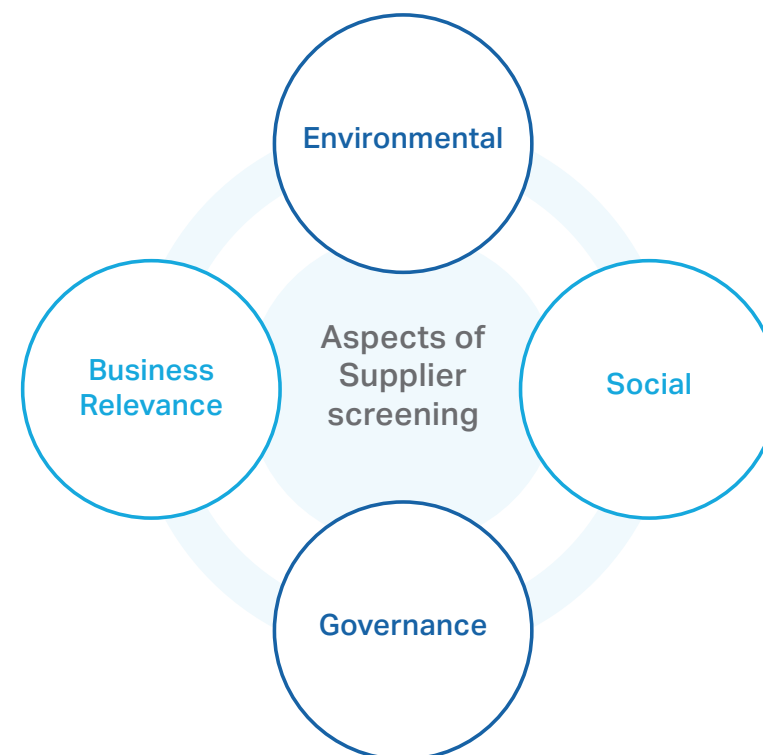
Country: Specific Risks considered Anti-corruption & bribery and business ethics

Sector: Specific Risks considered Human rights, air emissions and climate change

Significant/Critical Suppliers

Significant suppliers play a crucial role in Vedanta's operations, as any disruption in the supply chain can greatly affect production, costs, and revenues. These suppliers are of utmost importance to the Company due to the potential risks and impact associated with their products.

ABC Supplier classification:

Suppliers are classified as Significant/critical and non-significant/critical based on five dimensions under the ABC framework:
- Business outcome
- Spend (value/volume)
- Critical business operation
- Sensitivity
- Substitutability

Sustainability high-risk

Vedanta defines risk as a factor of likelihood of occurrence and its severity. The Company's suppliers are thus categorised under the following to reflect their high-risk potential:

1) Suppliers from countries which have the likelihood of incidence of slave labour/child labour

2) Suppliers not having adequate safety trainings in place for their workforce

3) Suppliers lacking a concrete policy on human rights, fair wages, proper working conditions, etc

4) Environment, Social and Governance misconducts resulting in disruption in supply chain

"A" category suppliers are critical suppliers for our business

Supply Chain Assessment and Development

Vedanta upholds its brand values of integrity, transparency, and responsibility with utmost dedication. To ensure consistency, we have streamlined a methodological approach for assessing and monitoring key performers based on HSE, business ethics and climate change parameters. This process helps to identify and track potential risks within the Company's supply chains.

Risk Assessment: Our Technical Standard Supplier and Contractor Management outlines the fundamental components of our Supplier Risk Management procedure. This comprehensive process establishes a uniform method for handling risks associated with suppliers and their performance throughout the entire organization.

Desktop assessment: The preliminary assessment of a supplier involves a thorough analysis conducted through desktop review. This helps us to recognize sustainability matters associated with a supplier. These matters could be of present significance and interest to essential external stakeholders like regulators, NGOs and wider industry/sector developments.

On-site Assessment: Vedanta conducts annual third-party on-site assessment for its significant suppliers to understand whether the suppliers are compliant with social and environmental regulations applicable in their respective regions

Vedanta prioritises strategic or

business-critical partners who provide essential components or services with limited alternative follow a risk-based approach to determine the need for additional due diligence or risk audits for its business partners. This may involve third-party audits against benchmarked standards. Business partners are segmented based on the risks they pose to our operations, using criteria such as inbound supply chain risk and the significance of suppliers and service providers as per defined definitions. To ensure responsible sourcing, especially in conflict-affected and high-risk areas (CAHRA), robust internal management practices are implemented for conducting due diligence, that enables Vedanta to identify, assess, and effectively manage potential risks associated with its supply chains.

In addition, the Company has implemented a process to identify and report potential red flags and the outcomes of risk assessments to senior management. This enables Vedanta to proactively identify and address risks within its supply chains. In cases where red flags are detected, enhanced due diligence measures are undertaken to thoroughly investigate the presence of risks, which may include serious human rights abuses, risks related to security forces, support to non-state armed groups, money laundering, tax evasion, bribery, and fraudulent misrepresentation of material origins.

Evaluation criteria for our business partners include:

- **Historical financial performance**
- **Management capability, including the ability to meet regulatory requirements**
- **Stability and scale of their business operations**
- **Quality of the product/service offered**
- **Ability to adhere to our Supplier Code of Conduct - including HSE criteria, MSA (Modern Slavery Act) compliance, environmental compliance**
- **Adherence to timelines and continuity of delivery**
- **Collaborating with new-age innovative start-ups**
- **Capacity building around best industrial practices**

Capacity Building Programmes

We maintain ongoing engagement with our supply chain partners through various initiatives such as training programmes. These training sessions are specifically designed to enhance safety awareness and practices among our business partners and contractors, including on-the-job safety training and safety town-halls aligned with Management Standard Competency, Training and Awareness. By providing these platforms, we not only prioritise the safety of all business partners, but also create opportunities to explore new markets and services while familiarising them with the best industrial practices. This approach allows us to deeply embed sustainability principles, including Vedanta's decarbonisation aspirations, throughout the entire value chain.

CAPACITY BUILDING PROGRAMS

Total number of suppliers in capacity building programs

492
FY 2023

% of significant suppliers in capacity building programs

44%
FY 2023

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Largest Contributions and Expenditures

Issue or Topic	Corporate Position	Description of Position / Engagement	Total Spend in FY 2023
Enhancing domestic market share of primary metals made in India to fortify raw material security and self sufficiency on mineral front.	Support	Working with government authorities/policy makers/regulators/ industry bodies	INR 6,540,000

Climate Advocacy

Vedanta and its subsidiaries actively participate in stakeholder discussions with industry bodies and trade associations. During these engagements, the Company ensures that perspectives are aligned with Vedanta's climate change commitments, which are applicable to all our group companies and subsidiaries.

Vedanta proudly supports initiatives such as the CII Climate Charter and the CEO Declaration on Climate Change. As members of these platforms, the Company strongly advocates for Indian industries to make ambitious climate commitments, aligned with the country's Net Zero goal. Vedanta recognises the importance of addressing climate change and actively promote sustainability within its operations and throughout the industry.

To ensure effective decision-making and alignment on climate change matters, Vedanta's Group Executive Committee (Group ExCo), which serves as the apex body for all organisational decisions,

including climate change, meets monthly. This committee ensures that the BUs and sustainability teams have a clear understanding of the Group's climate change and sustainability targets, and that they are performing in accordance with these objectives. This internal communication and coordination guarantee Vedanta's long-term strategy is effectively disseminated within the organisation, enabling individual BUs to engage with trade associations and policymakers from an organisational standpoint.

Vedanta's Chief Operating Officers (COOs) across multiple businesses actively participate in the Energy & Carbon Community of Practice (CoP). This exclusive forum focuses on climate change actions, sharing best practices, discussing emerging climate change risks and opportunities, and assessing the Company's alignment with the evolving climate change scenario. This platform ensures a clear dissemination of Vedanta's climate change strategy to BUs and serves as the foundation for their engagement with trade associations and policymakers.

Human Capital Development

Our workforce plays a pivotal role in the effective implementation of our strategic goals and in executing sustainable business performance. Vedanta's people-first approach is geared towards fostering a culture that is engaging and empowering. Our core values of innovation, creativity, and diversity infuse our organizational culture and inform our industry-leading people practices.

Our HR priorities are driven by four levers

- Freedom to have an enriched quality of life
- Freedom to learn and grow
- Freedom to innovate and maximise potential
- Freedom to be recognised and rewarded

Enriched quality of life

Our focus is on providing the necessary resources, opportunities, and support systems that enable our workforce to reach their full potential. We seek to empower our employees to strike a harmonious balance between personal needs and desires and professional responsibilities and ambitions. We foster a culture of continuous learning, nurture leadership talent, and develop strong employee engagement, thereby helping to enhance individual and collective performance.

Our goal of enriching the quality of life of our employees, encompasses both full-time employees and our business partners (contractors), and we take a holistic approach to employee wellbeing.

One aspect of enhancing the quality of life of our employees is by providing essential amenities. Our plant sites are accompanied by self-sufficient townships where all daily necessities for comfortable living are easily accessible including schools, markets, clubs, and gyms.

Vedanta provides accommodation for its employees, ensuring comfortable living spaces that meet their needs. Additionally, we also provide schools for employees' children, ensuring access to quality education.

To foster a sense of community and provide recreational opportunities, Vedanta creates social spaces. This includes clubs, which offer avenues for leisure activities and social interactions, promoting a healthy work-life balance. Essential amenities like markets are also located onsite, to help provide convenient access to daily necessities. Moreover, the availability of gyms in the societies promotes physical well-being, encouraging employees to maintain a healthy and active lifestyle.

By offering these amenities and creating a conducive environment, we recognise that employees need to have a congenial work life balance, to remain engaged and productive.

Kincentric Best Employer Award – India 2022

Vedanta has been conferred with a prestigious global recognition. The award comes as part of Kincentric's robust assessment that measures and identifies organizations who have transformed their people practices leading to better business outcomes.

Learning and growing

Vedanta is deeply committed to nurturing internal talent, recognizing and retaining exceptional talent and promoting deserving individuals to higher leadership positions. The company recognizes the importance of having a skilled and knowledgeable workforce, and therefore places strong emphasis on competency development. We have talent development initiatives, designed to ensure that employees acquire the necessary knowledge, skills, and attitude to meet present and future needs of the business. These initiatives span various types of interventions including broad-based and specific learning and development activities, assessing gaps in our talent pipeline and evaluating employee satisfaction and

taking remedial measures. We deploy a wide array of strategies and initiatives for workforce management so that employee potential is recognized, ambitions are honoured, and just remuneration and benefits are awarded.

INR 59.54 million
Expenditure on Training and Development of Employees

48,930
number of employees upskilled

Strategic Workforce Planning

Talent is a key asset and balancing business needs with employee expectations requires strategic management. At Vedanta, our human resources planning takes an analytical approach that leverages on the tools of people analytics: strategic workforce planning, retention analysis, evaluation of skill gaps and skill transformation.

Our structured manpower planning processes ensure optimum utilization of human resources (both direct and indirect) across the organization. We also do position revalidation against approved vacancies from the manpower plan of respective businesses in anticipation of future separations, including attritions and talent migration to other group companies. In our journey to reach the global benchmark of productivity, we have partnered with reputed third parties to achieve our talent management and employee productivity goals. To minimize attrition risk, some of our businesses have started to create a 3-level succession plan for all critical roles across the organization.

Skill Gap Analysis: To build preparedness into the talent management system, it is essential to understand the current skill gaps. We meet this objective by doing a skill gap analysis, which, in turn, forms the basis of mapping employees to various roles and assists in the design of appropriate learning and development interventions to bridge knowledge and capability gaps. We are using the globally recognised Kirk Patrick model to evaluate our training programmes.

The model assesses formal and informal training methods, and rates them against four criteria: Reaction, Learning, Behaviour and Results.

Job Rotation Adherence: In line with our commitment of making the best opportunities available to our internal talent we provide them with options to move into new roles, businesses, functions and locations, which is enabled through our job rotation policy.

Flight Risk Analysis: Retention of key talent is of the highest priority and we regularly conduct a flight risk analysis for this purpose. We use 10+ drivers impacting attrition such as grade, age, location, experience etc. and deploy internal scoring parameters to rank each employee on their risk of leaving the organization. In FY23, a few of our businesses conducted a first time ever engagement survey specifically targeting freshers (<1 year of experience) and performed a similar analysis based on their responses.

Organizational Network Analysis: We leverage our strong organizational network to amplify our efforts of retaining talent. In addition to internal communication tools like Outlook and Teams, we also offer platforms like V-Excel, prepared in partnership with Korn Ferry, through which employees can connect and interact.Through our data infrastructure and practices, we maintain a dynamic organogram or Management in Place (MIP) which helps us map the right people to the right roles, and it is regularly updated whenever necessary.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Having a strong network is crucial, since it facilitates an avenue to provide employees with clarity in terms of their roles, responsibilities, and functional requirements.

Measuring Employee Performance: At Vedanta, we follow a robust system of having well-defined Key Performance Indicators(KPIs) and Key Result Areas (KRAs) in place, with the help of which we assess the performance of our employees periodically. This exercise is supported by data and tools and platforms like Synergita and Darwinbox, which help us to analyse gaps and periodic trends. We are also supported by our project management partners Deloitte and Korn Ferry.

By taking a well-structured, data based approach to the different aspects of workforce planning and management, we ensure that our talent pipeline remains equipped to handle the demands of a fast-growing organization.

Promoting learning for transformational growth

Capacity Building of Senior Management on ESG

The commitment of our leadership and the engagement of our employees play a crucial role in advancing our ESG initiatives. We have successfully implemented an essential ESG training programme, called Sustainability 101, for our senior managers and it is now being extended across the entire organization. This comprehensive programme is designed to deepen employees' understanding of ESG-related issues, challenges, opportunities, and their relevance for our business operations. By raising awareness and sensitivity among our employees, we hope to cultivate a culture of sustainability and align our collective efforts towards achieving our ESG goals.

Emerging Leaders Program: Nurturing Talent for Future Leadership

Our Emerging Leaders programme embodies our belief in "Leadership from Within" and our dedication to cultivating a robust leadership pipeline. The principal objectives of the programme are:

- To identify high-potential employees and develop them into future leaders.

- Ensure diversity in front-line decision-making roles, promote a range of perspectives and experiences.

- Provide high-impact roles to identified talent.

- Facilitate cross-business and location movements, thereby exposing emerging leaders to diverse environments and experiences.

In line with this, an initiative was launched to identify 100 Top-Quality young minds with solid Pedigree, Performance and Potential (3Ps) and place them in No.2 leadership Roles/Positions across Businesses/ SBUs/Functions

A pool of 3,000 employees was identified basis desktop shortlisting. These individuals underwent varied kind of assessments evaluating their competencies and proficiencies in Business Acumen, Volume, Cost, R&R, HSE, Business Partner Management, Best Practices, Data Analytics, Digitization and other qualitative information. A series of workshops/panel engagements with the participants and high potential leaders were conducted to identify top performers.

This unique initiative helped us in identifying young talent and elevating them to significantly higher roles thus, catering to aspirations and ambitions of young and talented minds. The initiative has played a pivotal role in increasing employee retention and thereby reducing the attrition rate in FY22 from 11.15% to 8.86% in FY23.

2.5%
improvement in employee satisfaction score

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Recognised and Rewarded

At Vedanta, we have always recognised and rewarded exceptional performance both through significant opportunities for personal growth and wealth creation for employees. The performance incentives that we offer to our employees set the industry benchmark.

Performance Appraisal

Under our performance management process, employees are evaluated and rewarded for driving and meeting business objectives,as well as, individual performance goals. The Vedanta Performance Management Strategy works at delivering on the following key goals:

- To create a "High Performance Culture" which encourages differentiation in performance

- Fairness, transparency and consistency of the process

- Involvement and ownership of both managers and employees

- Rigour in execution, implementation and adherence to the process, by all

- Appropriate linkages to personal development and rewards

The performance management process is well integrated with our business goals and strategic priorities, with employee KPIs being aligned with our business targets. Performance review and feedback is conducted half-yearly for all the employeesand on a quarterly basis for senior managers and key talents identified through various talent management initiatives.

All employees are assessed semi-annually against a set of predefined goals, set in consultation with their respective line

managers. In addition, selected senior leaders undergo a 360 degree evaluation as part of their annual performance evaluation. At Vedanta, we ensure SMARTER (Specific, Measurable, Achievable, Relevant, Time Bound, Excellence Oriented, Rigorous) goal setting and evaluation focused on four major tracks:

- Safety, risk and compliance

- People development

- Business/ function outcomes

- Strategic/ long term objectives

The performance management system has been digitalized through Darwin Box, leading to a unified view. All key steps like KPI setting, reviews, feedback etc. are now conducted through online platforms. Employees and managers are encouraged to have one on one discussions and feedback sessions offline which are then updated in the system for record and tracking. All our employees undergo performance appraisal and are covered by the performance management process.

Succession Planning

We have recently completed our most extensive leadership succession planning exercise till date. The primary goal of this initiative has been to establish a comprehensive three-level succession slate for Chief Operating Officers (COOs) across our key business units. We have achieved this by utilizing a combination of internal job postings

(IJPs) and meticulous selection of outstanding leaders to identify potential successors for each COO position.

Our recently launched Emerging Leaders programme will be carrying forward with this exercise. The programme focuses on identifying and placing high-potential talent in Deputy CXO roles across businesses, strategic business units (SBUs), and functions. We are also prioritizing on identifying successors for other executive positions like Deputy Chief Human Resources Officer (CHRO) and Chief Financial Officer (CFO) roles within each business division, through this programme.

Employee Satisfaction Survey

To better understand employee expectations and work-related experiences, Vedanta conducted the Gallup Study to survey employee satisfaction. The survey was based on a comprehensive questionnaire covering job satisfaction, internal motivation, happiness, work environment and stress management. The survey is anonymous, enabling employees to share their honest feedback. We hope to create an even more conduciveand rewarding work environment based on the valuable feedback that we receive.

FY 2021
80
67

FY 2022
83
73

90
TARGET

FY 2023
84
76

■ % of employees with top level of engagement, satisfaction, wellbeing, or employee net promoter score (eNPS)

■ % of employees who responded to the survey

Employee Wellbeing

Employee Support Programmes

Our employee support programmes prioritize the well-being of employees, recognizing that their physical, mental, and emotional health directly impact their performance and productivity. These programmes aim at fostering employee engagement, reducing turnover rates, and boosting productivity. Various initiatives have been implemented to ensure the well-being of employees and aid in workplace stress management. These include providing access to comprehensive healthcare facilities, offering wellness programmes and resources, and fostering a supportive and inclusive workplace culture. By investing in employee well-being, Vedanta demonstrates that it cares for the overall happiness and success of its employees.

Employee well-being encompasses a range of programs that span across our Business Units, extending support not just to employees but also to their families. Each year begins with the creation of a thorough well-being calendar, encompassing a diverse array of wellness aspects to be focused on every month. The success of these endeavors is evidenced by the remarkable level of employee engagement they have generated, ultimately resulting in elevated levels of involvement and commitment.

Emotional Well-being: Our commitment to emotional well-being is showcased through our observance of World Mental Health Day across the Group. Notably, at HZL, the "Give Back" initiative empowers employees to express gratitude to those who have made a positive impact on their lives.

Social Well-being: Vedanta's dedication to societal betterment finds expression in our CSR endeavors. HZL's flagship program, Sakhi, has transformed 209 villages, benefiting 27,568 women and 2,118 Self Help Groups.

Spiritual Well-being: Collaborations with Art of Living centers by several Business Units offer employees rejuvenating yoga sessions, nurturing their spiritual well-being.

Umang: Introduced in our Jharsuguda business, Umang is a holistic lifestyle and well-being program. It caters to emotional well-being, physiotherapy, meditation, and women's wellness, facilitated through a multi-lingual mobile application.

Some other employee wellbeing initiatives include:

- Annual health check-ups, covering a comprehensive range of health assessments

- Reimbursement ofthe cost of well-being packages utilized by employees

- Company sponsored multi-course meals are provided at our facilities, with each meal being carefully designed to address both diverse dietary preferences and balanced nutritional needs.

- Various stress management programmes are organized across our different business units.

These programmes aim to raise awareness about the effects of stress on the body, provide resources, and support employees in maintaining their mental well-being. At HZL, employees have access to our Tranquil App which offers a wide range of meditation courses that have been designed to help individuals cultivate a sense of inner peace and mindfulness.

- To promote employee fitness, we provide sports and fitness facilities across our business locations. Regular tournaments and events are organized, fostering a sense of camaraderie and encouraging employees to lead an active lifestyle.

Arogya World Healthiest Workplace Award given to Sterlite Copper, Aluminium & Power

Yoga at Home and Yoga with Family International Yoga Day was celebrated across all businesses. We conduct regular yoga sessions at some of our BUs

#RunForZeroHunger: Vedanta is a sponsor of the Delhi Half Marathon, and encourages its employees to participate. For every kilometre an employee walks during the marathon, Vedanta donates one meal to those in need. This initiative answers to the dual objectives ofpromotingphysical fitness andcreating positive social impact

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Employee Benefits

Workplace flexibility and Part time work:

The emergence of Covid-19 compelled companies to reevaluate and adapt their workplace strategies to safeguard the well-being of their workforce. This led to the introduction of measures like health screenings, social distancing protocols, and remote work, which became standard across all our locations.

However, considering Vedanta's position in the manufacturing sector where on-site presence is essential, as the Covid-19 threat receded, it became evident that the practices adopted during the pandemic could be adjusted to prioritize our employees' health without compromising it.

As of FY23, the widespread remote work initiative was phased out. Acknowledging the significance of workplace flexibility, we have a policy on workplace flexibility and part time work wherein employees are now offered the opportunity to work from home under special circumstances, subject to agreement with their respective managers.

This approach ensures the preservation of operational efficiency while upholding the well-being of our staff.

Work Integrated Learning Programme

Vedanta enlists bright and dynamic individuals from prestigious universities worldwide, nurturing their potential through strategic role assignments, well-defined career paths, cross-functional projects, mentoring, and top-tier benefits. To ensure a constant infusion of adept knowledge, skills, and attitudes, Vedanta concentrates on enhancing employees' competencies. This focus caters to both present and future business needs through robust talent development programs, with multiple interventions aimed at talent retention. Vedanta spearheads an array of Group-Wide Talent Development Initiatives, including Vedanta Leadership Development Program (VLDP).

VLDP, initiated in 2017, is a meticulously structured leadership development pathway for early-career professionals. This program recruits top talent from premier B-Schools and Engineering Campuses across India, molding them into future leaders within Vedanta. Presently, over 150 VLDP members are affiliated with the Group. VLDP participants experience accelerated career growth, enabling lateral movement across Business Units, with the

potential to assume CXO roles within 8-10 years. This initiative not only offers rapid advancement but also fosters mentorship from senior leaders, cross-functional learning opportunities, and tailored career progression pathways.

In addition to these overarching Group initiatives, individual Business Units devise their own Career Development Initiatives catering to their specific talent pools. The "Star of the Business" program identifies high-potential employees from both enabling and technical functions, culminating in personalized career development plans for each year.

Lactation and creche facilities

The Business Units offer childcare amenities, including crèche facilities, catering to both Vedanta staff and Business Partners. Notably, Cairn, one of our Business Units, has established a collaboration with the reputable Play School and Day Care Chain, Footprints. This partnership ensures the provision of crèche services to all female employees throughout the Delhi-NCR region.

ESG Factsheet from Data Annexure

ENVIRONMENT

Direct Non-Renewable Energy consumption within the organization (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	GJ	317,975,459	330,774,567	323,024,910	287,716,506
Copper Business	GJ	505,559	601,881	638,737	770,431
Iron Ore Business	GJ	257,899	291,876	331,158	17,715,752
Oil and Gas Business	GJ	23,489,258	24,739,239	22,576,373	19,810,968
Port Business	GJ	-	-	-	25,192
Power Business	GJ	122,843,288	108,913,938	129,394,511	154,575,324
Steel	GJ	7,123,193	5,868,781	6,385,091	3,073,853
Zinc India	GJ	44,647,286	43,882,174	43,380,672	34,638,170
Zinc International	GJ	1,323,808	686,753	1,513,385	1,370,477
FACOR	GJ	-	0	3,519,756	2,091,023
Total (Vedanta Ltd.)	**GJ**	**518,165,749**	**515,759,208**	**530,764,592**	**521,787,697**
	MWH	**143,946,445**	**143,277,908**	**147,446,404**	**144,941,027**

Indirect Non-Renewable Energy consumption within the organization (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	GJ	3,479,264	2,248,640	9,162,839	29,845,520
Copper Business	GJ	208,618	287,074	293,877	391,901
Iron Ore Business	GJ	3,603	7,291	2,585	19,033
Oil and Gas Business	GJ	592,627	634,124	1,158,129	1,747,545
Port Business	GJ	46,494	-	46,655	38,472
Power Business	GJ	12,647	34,020	3	-
Steel	GJ	5,045	685,454	946,319	1,539,429
Zinc India	GJ	1,114,052	1,355,856	6,044,725	6,056,205
Zinc International	GJ	1,739,976	1,375,230	884,079	970,893
FACOR	GJ	-	-	48,947	543,209
Total (Vedanta Ltd.)	**GJ**	**7,202,325**	**6,627,688**	**18,588,158**	**41,152,208**
	MWH	**2,000,806**	**1,841,172**	**5,163,790**	**11,431,169**

Direct Renewable Energy consumption within the organization (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	GJ	-	-	307	71,018
Copper Business	GJ	-	-	-	-
Iron Ore Business	GJ	0	0	915,564	-
Oil and Gas Business	GJ	2,284	2,363	1,810	4,341
Port Business	GJ	-	-	-	-
Power Business	GJ	-	41	48	42
Steel	GJ	-	-	-	219
Zinc India	GJ	-	-	198,386	3,460,663
Zinc International	GJ	-	-	-	-
FACOR	GJ	-	-	-	-
Total (Vedanta Ltd.)	**GJ**	**2,284**	**2,404**	**1,116,115**	**3,536,283**
	MWH	**634**	**668**	**310,057**	**982,301**

Indirect Renewable Energy consumption within the organization (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	GJ	-	2,432	10,850,720	4,655,615
Copper Business	GJ	82,966	72,887	69,602	64,909
Iron Ore Business	GJ	-	-	-	-
Oil and Gas Business	GJ	-	-	-	-
Port Business	GJ	-	-	-	-
Power Business	GJ	-	-	-	-
Steel	GJ	-	-	-	-
Zinc India	GJ	519,049	2,049,468	2,586,586	155,524
Zinc International	GJ	-	-	-	-
FACOR	GJ	-	-	-	-
Total (Vedanta Ltd.)	**GJ**	**602,015**	**2,124,787**	**13,506,908**	**4,876,048**
	MWH	**167,240**	**590,266**	**3,752,219**	**1,354,458**

Energy consumption within the organization (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	GJ	321,454,723	333,025,639	343,038,776	322,288,658
Copper Business	GJ	797,142	961,841	1,002,216	1,227,242
Iron Ore Business	GJ	261,502	299,167	1,249,307	17,734,785
Oil and Gas Business	GJ	24,084,168	25,375,726	23,736,312	21,562,854
Port Business	GJ	46,494		46,655	63,664
Power Business	GJ	122,855,935	108,947,999	129,394,562	154,575,366
Steel	GJ	7,128,238	6,554,235	7,331,410	4,613,502
Zinc India	GJ	46,280,387	47,287,498	52,210,369	44,310,562
Zinc International	GJ	3,063,784	2,061,983	2,397,464	2,341,370
FACOR	GJ			3,568,703	2,634,232
Total (Vedanta Ltd.)	**GJ**	**525,972,373**	**524,514,087**	**563,975,773**	**571,352,235**
	MWH	**146,115,125**	**145,710,013**	**156,672,470**	**158,708,954**

GHG Scope 1 Emissions (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	TCO_2e	34,664,758	41,364,189	35,518,717	31,992,077
Copper Business	TCO_2e	35,037	41,284	28,684	34,822
Iron Ore Business	TCO_2e	1,750,789	1,689,317	2,058,130	1,862,912
Oil and Gas Business	TCO_2e	1,841,600	1,970,766	2,075,802	1,777,161
Port Business	TCO_2e	0	1,750	1,595	2,301
Power Business	TCO_2e	11,804,420	6,376,205	12,456,858	14,791,782
Steel	TCO_2e	2,719,295	2,856,311	2,429,510	2,858,733
Zinc India	TCO_2e	4,480,887	4,582,808	4,321,317	3,444,672
Zinc International	TCO_2e	186,082	53,629	142,825	114,489
FACOR	TCO_2e	-	-	453,310	296,441
Total (Vedanta Ltd.)	**TCO_2e**	**57,482,868**	**58,936,259**	**59,486,747**	**57,175,391**

GHG Scope 2 Emissions (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	TCO_2e	804,257	519,576	2,117,489	5,994,336
Copper Business	TCO_2e	48,314	65,227	73,079	87,924
Iron Ore Business	TCO_2e	762	1,536	593	3,805
Oil and Gas Business	TCO_2e	134,987	142,325	254,143	344,655
Port Business	TCO_2e	10,601	8,318	10,237	7,588
Power Business	TCO_2e	2,775	8,128	1	-
Steel	TCO_2e	113,155	95,963	143,321	249,986
Zinc India	TCO_2e	253,756	307,059	497,965	1,135,622
Zinc International	TCO_2e	496,104	164,686	235,053	249,700
FACOR	TCO_2e	-	-	10,864	106,915
Total (Vedanta Ltd.)	**TCO_2e**	**1,864,711**	**1,312,818**	**3,342,745**	**8,182,542**

We calculate and report Greenhouse Gas (GHG) inventory i.e. Scope 1 (process emissions and other direct emissions) and Scope 2 (purchased electricity) as defined under the World Business Council for Sustainable Development (WBCSD) and World Resource Institute (WRI) GHG Protocol.

GHG Scope 3 Emissions

Categorization	Unit	FY21	FY22	FY23
Scope 3-Upstream	Million TCO_2e	7.23	8.04	8.58
Scope 3-Downstream	Million TCO_2e	29.09	29.37	29.61
Total	**Million TCO_2e**	**36.32**	**37.41**	**38.19**

The Scope 3 accounting was prepared based on the GHG Protocol's Scope 3 Value-Chain Accounting and Reporting Standard. For Oil & Gas and Steel sectors, sector specific standards were used. To determine, which of the 15 upstream and downstream categories were relevant for our business, we conducted a materiality assessment that used the following criteria of significant - magnitude, influence, stakeholder interest, sector guidance and risks.

GHG Scope 3 Emissions (category-wise)

	Unit	FY21	FY22	FY23
Category 1- Purchased Goods and Services	TCO$_2$e	4,161,727	4,988,940	5,441,919
Category 2- Capital Goods	TCO$_2$e	-	2,232	28,929
Category 3- Fuel and Energy related	TCO$_2$e	2,146,367	2,627,796	2,543,743
Category 4- Upstream Transformation	TCO$_2$e	458,512	373,841	510,132
Category 5- Waste Generated in Operations	TCO$_2$e	445,290	38,623	39,610
Category 6- Business Travel	TCO$_2$e	1,406	591	2,984
Category 7- Employee Commute	TCO$_2$e	12,101	11,804	10,595
Category 8- Leased Assets	TCO$_2$e	Not Applicable	Not Applicable	66
Category 9- Downstream Transport	TCO$_2$e	234,805	487,723	580,432
Category 10- Processing of sold products	TCO$_2$e	1,001,617	1,639,653	4,083,312
Category 11- Use of sold products	**TCO$_2$e**	**25,163,167**	**24,357,685**	**21,898,351**
Crude Oil	TCO$_2$e	22,296,453	21,626,744	18,820,015
Natural Gases	TCO$_2$e	2,633,400	2,466,407	2,864,242
Coal	TCO$_2$e	233,313	264,534	214,094
Credit due to Slag recycling/reuse	TCO$_2$e	-430,000	-340,000	-522,839
Category 12- End of Life Treatment of Sold Products	TCO$_2$e	2,692,971	2,881,698	3,047,478
Category 13-Downstream Leased Assets	TCO$_2$e	Not Applicable	Not Applicable	Not Applicable
Category 14- Franchises	TCO$_2$e	Not Applicable	Not Applicable	Not Applicable
Category 15- Investments	TCO$_2$e	Not Applicable	Not Applicable	Not Applicable

Scope 3 was recalculated in FY 2022-23 and we have included Category 12 emissions this year and restated the information for the same for last two years

Top 3 scope 3 emission sources (FY23)

Business	Unit	1st largest Source	2nd largest Source	3rd largest Source
Vedanta Ltd	TCO$_2$e	Category 11 - Use of Sold Products	Category 1 - Purchased Goods & Services	Category 10 - Processing of Sold Products
		21,898,351	5,441,919	4,083,312

GHG Emissions Intensity

Business	Unit	FY20	FY21	FY22	FY23
GHG Emission Intensity (Scope 1)	(TCO$_2$e/INR Million)	68.8	60.61	45.39	39.32
GHG Emission Intensity (Scope 2)	(TCO$_2$e/INR Million)	2.23	1.35	2.55	5.63
GHG Emission Intensity (Scope 1 and 2)	(TCO$_2$e/INR Million)	71.04	61.96	47.94	44.95

Intensity calculation does not include BMM and Fujairah Gold.

GHG Emissions Intensity per tonne of metal

Vedanta Ltd	FY21	FY22	FY23
TCO$_2$e/ton of metal	6.45	6.14	6.25*

*This number excludes Fujairah and BMM

AIR EMISSIONS

PM Emissions (Business wise)

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	MT	2,908	2,611	4,754	6,072
Copper Business	MT			0	0.16
Iron Ore Business	MT	324	478	1,085	1,450
Oil and Gas Business	MT			41	256
Port Business	MT				-
Power Business	MT	4,634	4,846	4,921	5,987
Steel	MT	2,322	10,653		3,373
Zinc India	MT	1,027	1,105	964	1,047
Zinc International	MT				-
FACOR	MT			62	67
Total (Vedanta Ltd.)	**MT**	**11,215**	**19,693**	**11,827**	**18,252**

SO$_x$* Emissions

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	MT	232,847	229,108	211,636	200,104
Copper Business	MT	-	-	-	0.08
Iron Ore Business	MT	100	95	98	97
Oil and Gas Business	MT	-	-	137	56
Port Business	MT	-	-	-	-
Power Business	MT	248,124	273,054	268,603	277,027
Steel	MT	3,272	4,156	6,451	6,506
Zinc India	MT	23,864	19,980	22,006	18,448
Zinc International	MT	-	-	-	-
FACOR	MT	-	-	126	165
Total (Vedanta Ltd.)	**MT**	**508,207**	**526,393**	**509,056**	**502,403**

*Corrected SOx values for BALCO and BALCO IPP based on SOx emission factor calculated in FY23.

NO$_x$ Emissions

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	MT	21,714	25,130	45,252	39,165
Copper Business	MT				0.25
Iron Ore Business	MT	73	59	43	53
Oil and Gas Business	MT	-	-	723	1,495
Port Business	MT	-	-	-	-
Power Business	MT	32,131	32,733	32,337	41,297
Steel	MT	1,486	1,364		2,803
Zinc India	MT	8,913	7,020	6,144	4,851
Zinc International	MT	-	-	-	-
FACOR	MT	-	-	143	192
Total (Vedanta Ltd.)	**MT**	**67,317**	**66,305**	**84,641**	**89,856**

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Wastewater Discharge

Business	Unit	FY20	FY21	FY22	FY23
Aluminium	m^3	105,304	120,037		-
Copper Business	m^3	2,994,846	2,581,167	3,406,440	17,064,563
Iron Ore Business	m^3	3,639,459	61,571	132,090	88,961
Oil and Gas Business	m^3	1,946,503	1,896,530	2,485,423	1,943,867
Port Business	m^3	-	-	-	-
Power Business	m^3	-	-	-	-
Steel	m^3	-	-	-	-
Zinc India	m^3	-	-	-	-
Zinc International	m^3	119,271	4,330	-	-
FACOR	m^3	NA	NA	-	1,074,276
Total (Vedanta Ltd.)	**m^3**	**8,805,383**	**4,663,635**	**6,023,953**	**20,171,667**

Volume and disposal of formation or produced water (FY23)

Business	Unit	Total volume of produced water	Total Water Re-injected
CAIRN	m^3	37,109,961	35,576,265

Exposure to Water Stressed Areas (FY23)

Total production plants	Production plants in water-stressed areas	Cost of Goods Sold (COGS) from Production plants in water-stressed areas %
33	22	31.94

Water Consumption in Water-Stressed Areas (million m^3)

Water consumption in areas with water stress	FY20	FY21	FY22	FY23
Total net freshwater consumption in water-stressed areas (Total water withdrawn - Total water discharged)	55	43	47	54
% of water withdrawn from areas of water stress	28	21	23	27

Revenue contribution of sites in Water Stressed Areas (FY23)

Business	Total Sites Accessed for water risk (basin-level)	Sites accessed with high risk (basin-level)	% Revenue contribution to the group
Oil & Gas Cairn	7	7	10.34%
HZL	9	9	22.78%
Vedanta Aluminium – Lanjigarh	1	1	3.74%
Facor Ltd, Sukinda, Jajapur, Odisha	1	1	0.53%
IOK, Megalhalli, Chitradurga, Karnataka	1	1	1.15%
VGCB, Vizag	1	1	0.00%
TSPL, Mansa, Punjab	1	1	3.99%
Sterlite Copper, Tuticorin, Tamilnadu	1	1	0.00%

Business Impacts of Water Related Incidents

Incidents	FY20	FY21	FY22	FY23
Total actual and opportunity costs from water-related incidents	0	0	0	0

Number of Tailings dam (Business wise)

Business	Number of active tailings dam	Number of inactive tailings dam	Number of closed tailings dam
Aluminium	9	2	4
Copper Business	0	1	0
Iron Ore Business	0	0	0
Oil and Gas Business	0	0	0
Port Business	0	0	0
Power Business	1	0	0
Steel	0	0	0
Zinc India	3	1	0
Zinc International	3	0	1
FACOR	0	0	0
Total (Vedanta Ltd.)	**16**	**4**	**5**

Biodiversity Assessment

	Number of Sites	Area (Ha)
Overall sites	52	53,806
Sites where Biodiversity impact assessment conducted	52	53,806
Sites having a significant biodiversity impact	2	2,536
Sites having significant biodiversity impact having management plans	2	2,536

IUCN red list species and national conservation list species

IUCN CLASSIFICATION	AFRICA	ASIA	AUSTRALIA
Critically Endangered	-	7	-
Endangered	3	17	8
Vulnerable	10	41	7
Near Threatened	4	15	-
Least Concern	55	280	-

OG 11: Number of sites that have been decommissioned and sites that are in the process of being decommissioned

Business Unit	Operational Site	Total Land Area (Ha)	Status (Active/Inactive)
Cairn Oil & Gas	MPT & other facilities	208.12	Active
	Mangala fields	85.67	Active
	Bhagyam Fields	74.04	Active
	Aishwarya fields	45.08	Active
	North Satellite fields	17.31	Active
	RGT & other facilities	21.00	Active
	South satellite fields	66.54	Active
	Suvali	33.14	Active
	Ravva	116.40	Active
	Viramgam Terminal	31.33	Active
	Radhanpur Terminal	0.40	Active
	Bhogat Terminal	149.43	Active
	Barmer Gujrat Pipeline (Mangala Development Pipeline)	~670 KM pipeline	Active

Total amounts of Overburden, Wasterock, Tailings generated (Business wise)

Business	Unit	Overburden (MT)	Tailings (MT)	Waste Rock
		FY23		
Aluminium	MT	NA	NA	NA
Copper Business	MT	NA	NA	NA
Iron Ore Business	MT	3,700,072	NA	NA
Oil and Gas Business	MT	NA	NA	NA
Port Business	MT	NA	NA	NA
Power Business	MT	NA	NA	NA
Steel	MT	NA	NA	NA
Zinc India	MT	5,280,408	14,505,607	0
Zinc International	MT	4,40,76,332	11,936,728	110,427
FACOR	MT	NA	NA	NA
Total (Vedanta Ltd.)	MT	**53,056,812**	**26,442,335**	**110,427**

Hazardous Waste Generated, Recycled and Disposed in MT (Business wise)

Business	Generation	Recycled/ Reused	Landfilled	Incinerated with energy recovery	Incinerated w/o energy recovery	Otherwise disposed
			FY23			
Aluminium	404,894	383,745	8,677	-	279	3,278
Copper Business	3,110	2,968	-	-	-	-
Iron Ore Business	77	59	-	-	1.9	-
Oil and Gas Business	34,086	43,124	-	-	-	-
Port Business	2.15	1.44	-	-	-	-
Power Business	75.6	91.87	-	-	6.46	-
Steel	245.3	239	13.34	-	-	-
Zinc India	93,578	50,779	37,771	-	-	-
Zinc International	83.5	60.7	15	-	21	-
FACOR	1,089	1,071	-	-	1.94	-
Total (Vedanta Ltd.)	**537,241**	**482,138**	**46,477**	**-**	**310**	**3,277**

Mineral Waste

	Unit	FY20	FY21	FY22	FY23
Mineral waste generated – Waste rock	MT	14,135,872	2,251,677	100,921	110,427
Mineral waste generated - Tailings	MT	15,059,116	18,710,338	18,667,036	26,442,334
Mineral waste repurposed/reused	MT	14,135,872	2,251,677	204,840	318,264
Total mineral waste disposed	MT	15,059,116	18,710,338	18,571,046	26,234,497

Geochemically reactive mineral waste: 0%

Environmental Investment and Savings (FY23)

Capital Expenditure on environment environment	Operating expenses on environment	Savings from water conservation programs	Savings from energy conservation programs	Total Savings
₹5,469,143,522	₹13,563,742,012	₹ 144,418,432	₹ 4,668,899,248	₹4,813,317,680

Environmental violations*

	Unit	FY20	FY21	FY22	FY23
Number of Violations reported during the year	Number	0	0	0	0

In FY23, NGT imposed a fine of INR 250 million on Vedanta Aluminium - Lanjigarh. The ruling was on a case that had been filed in Nov 2015.

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

SOCIAL

CSR Spend

Business	Total CSR (in INR)	
	FY22	FY23
Vedanta Ltd	₹ 3,996,000,000	₹ 4,540,000,000

	Business	Cash Contributions (Mn INR)	Management Overheads (Mn INR)
Cash contributions and Management Overheads for CSR Spent for FY23	Vedanta Ltd	453.60	9.44

Active Community Engagement

Community consultation assets		Development projects	
Number of current Production Assets	% of current Production Assets under community consultation	Number of Development Projects under community consultation	% of current Development Projects
52	100	2	100

Security personnel trained in human rights policies or procedures

Business	Unit	FY21	FY22	FY23
Vedanta Ltd	%	90	94	81

In FY23, ESL and VGCB data did not undergo assurance

Incidents of violations involving rights of Indigenous Peoples

Business	Unit	FY21	FY22	FY23
Violations	Number	4	0	0

Freedom of Association

	Unit	FY23
Full-time employees covered by collective bargaining agreements	%	26

Employee Volunteering for CSR (Business wise)

Business	Unit	FY23
HZL	Hours	10,044
Cairn	Hours	1,213
IOB	Hours	800
TSPL	Hours	300
VAL-L	Hours	440
VAL-J	Hours	1,333
ESL	Hours	400
FACOR	Hours	281
BALCO	Hours	163
Copper	Hours	25
Total (Vedanta Ltd.)	Hours	**14,998**

Safety Performance Employees

Business	Total Injuries				Injury Rates (TRIFR)				Lost Day Rate				Work-Related Fatalities			
	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23
Vedanta Ltd.	42	42	37	30	0.99	1.08	0.96	0.82	25.39	11.79	22.95	39.91	1	-	-	1

Safety Performance Business Partners (Contract workers + Third party)

Business	Total Injuries				Injury Rates (TRIFR)				Lost Day Rate				Work-Related Fatalities			
	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23
Vedanta Ltd.	330	253	279	271	1.76	1.57	1.49	1.26	96.32	158.11	59.41	88.19	6	8	12	12

Lost Time Injury Frequency Rate (LTIFR)

Vedanta Ltd.	FY20	FY21	FY22	FY23
Employees	0.45	0.46	0.55	0.44
Contractors	0.71	0.54	0.59	0.54
Total	**0.67**	**0.52**	**0.58**	**0.52**

Number of Process Safety Incidents

Business	Tier 1				Tier 2				Total			
	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23
Vedanta Ltd.*	2	2	1	0	5	5	2	1	7	7	3	1

Process Safety Incidents are only applicable to Cairn

Process Safety Incidents (Tier 1)

OG-13 BUSINESS	Process Safety Incidents (Tier 1)				Man hours			
	Incidents per million-man hours worked				Man hours			
	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23
Cairn	0.04	0.05	0.03	0	49,970,249	36,785,234	34,338,084	38,034,913

HUMAN CAPITAL

New Employee Hires

Age Group	FY20	FY21	FY22		FY23	
			Male	Female	Male	Female
<30 yrs	1,079	1,087	738	405	1,253	740
30-50 yrs	311	304	246	43	117	28
>50 yrs	19	20	27	6	37	4
Total	**1,409**	**1,411**	**1,011**	**454**	**1,407**	**772**

Internal Hires: Age and Gender wise

Positions filled by internal candidates (internal hires)		Age	FY20	FY21	FY22	FY23
Male (only internal employees)	Internal Job Posting Movements	< 30 years of age	34	71	93	398
		≥30 and < 50 years of age	206	249	252	485
		≥ 50 years of age	48	36	34	60
Female (only internal employees)	Internal Job Posting Movements	< 30 years of age	40	53	61	106
		≥30 and < 50 years of age	35	42	46	77
		≥ 50 years of age	0	0	2	1
Total			**363**	**451**	**488**	**1,127**
% internal hires			78%	83%	81%	82%

Workforce Breakdown

Gender	Age	Employee Count
Male	< 30 Yrs	4,318
	30 - 50 Yrs	7,947
	> 50 Yrs	2,430
Female	< 30 Yrs	1,689
	30 - 50 Yrs	627
	> 50 Yrs	71
Total	< 30 Yrs	6,007
	30 - 50 Yrs	8,574
	> 50 Yrs	2,501
Total Employees		**17,082**

Total employee turnover rate: Age and Gender Wise (FY23)

	Age	Employee Turnover %
Male	< 30 Yrs	18.02
	30 - 50 Yrs	6.18
	> 50 Yrs	13.33
Female	< 30 Yrs	16.64
	30 - 50 Yrs	11.48
	> 50 Yrs	16.90
Total	< 30 Yrs	17.63
	30 - 50 Yrs	6.57
	> 50 Yrs	13.43
	Grand Total	**11.46**

Voluntary employee turnover rate: Age and Gender wise (FY23)

Voluntary Employee Turnover Rate	Age	Employee Turnover %
Male	< 30 Yrs	16.63%
	30 - 50 Yrs	5.29%
	> 50 Yrs	1.48%
Female	< 30 Yrs	15.93%
	30 - 50 Yrs	11.00%
	> 50 Yrs	1.41%
Total	< 30 Yrs	16.43%
	30 - 50 Yrs	5.70%
	> 50 Yrs	1.48%
	Grand Total	**8.86%**

Remuneration ratio of Male to Female

	Executive Level (Top Management)	Management Level (Middle Management)	Junior management level
	Male: Female		
Ratio of average Basic Salary	0.81	1.18	1.17
Ratio of average Renumeration	0.81	1.24	1.14

Employee Training

	FY21		FY22		FY23	
	Male	Female	Male	Female	Male	Female
Total Training Hours - Full-time Employees	351,610.20	66,632.80	252,468.39	48,383.39	3,22,003	94,896
Average Training Hours for FTEs	23.23	34.87	16.95	24.66	21.91	39.76

Periodic assessment of all employees

Employee assessment and review	Percentage Coverage
	FY 23
Employee undergoing periodic assessment and review	100%
Employee undergoing multi assessment	2.55%

Employee Well-being

	FY20	FY21	FY22	FY23	FY23 target
% of employees with top level of engagement, satisfaction (% of satisfied employees)	-	80	83	84	90
% of employees who responded to the survey	-	67	73	76	

Training & Development

Employee Training	FY 23		
	Male	Female	Total
Average hours per FTE of training and development	21.91	39.76	24.3
Average amount spent per FTE on training and development (INR)	1,094.73	1,877.40	1204.1

Employee Development Programs

Name of the program	% of FTEs participating in the program
V-Lead	13.9
Emerging Leaders Program	18

GOVERNANCE

Industry Associations	Type of Organization	Total amount paid in FY 23
Federation of Indian Petroleum Industry	Trade Association	₹ 1,34,52,000
IHS PEPS	Trade Association	₹ 57,08,107
FICCI	Trade Association	₹ 47,11,180
FIMI	Trade Association	₹ 23,12,119

Contributions & Other Spending (INR Million)

	FY20	FY21	FY22	FY23
Lobbying, interest representation or similar	-	-	-	-
Local, regional or national political campaigns / organizations / candidates	1,140	-	1,230	1,550
Trade associations or tax-exempt groups (e.g. think tanks)	56	30	53	37
Other (e.g. spending related to ballot measures or referendums)	-	-	-	-
Total contributions and other spending	1,196	30	1,283	1,587

Largest Contributions & Expenditures

Issue or Topic	Corporate Position	Description of Position / Engagement	Total spend in FY 23
Increasing the competitiveness of Indian metals and mining industry and products through cost competitiveness, raw material security, import substitution and energy logistics reduction.	Support	Working with government authorities/policy makers/regulators/ industry bodies	₹12,771,000
Enhancing domestic market share of primary metals made in India to fortify raw material security and self-sufficiency on mineral front.	Support	Working with government authorities/policy makers/regulators/ industry bodies	₹ 6,540,000

Procurement Spend on Suppliers

Procurement budget	FY 23	
	INR (millions)	% spent
Total procurement budget spent	868,761	100%
Total procurement budget spent on suppliers belonging to same country	618,235	75%
Total procurement budget spent on suppliers belonging to same state	351,160	43%
Total procurement budget spent on suppliers belonging to same district	139,402	17%

Supplier Screening

Supplier Screening	FY 23
Total number of suppliers	5,572
Total number of Tier-1 suppliers	4,682
Total number of significant suppliers in Tier-1	1,099
% of total spend on significant suppliers in Tier-1	67%
Total number of significant suppliers in non Tier-1	58
Total number of significant suppliers (Tier-1 and non Tier-1)	1,157

Supplier Assessment

Supplier Assessment	FY 23
Total number of suppliers assessed via desk assessments/on-site assessments	1,986
% of significant suppliers assessed	81%
Number of suppliers assessed with substantial actual/potential negative impacts	298
% of suppliers with substantial actual/potential negative impacts with agreed corrective action/improvement plan	1.07%
Number of suppliers with substantial actual/potential negative impacts that were terminated)	0%

Capacity building programs

Capacity building programs	FY 23
Total number of suppliers in capacity building programs	492
% of significant suppliers in capacity building programs	44%

Corrective action plan support

Corrective action plan support	FY 23
Total number of suppliers supported in corrective action plan implementation	5
% of suppliers assessed with substantial actual/potential negative impacts supported in corrective action plan implementation	2%

Reporting on breaches

Reporting areas	Number of breaches in FY 23
Corruption or Bribery	14
Discrimination at Workplace	7
Customer Privacy Data	0
Conflicts of Interest	4
Money Laundering or Insider trading	0

Cybersecurity

Breaches of information security	FY 20	FY 21	FY 22	FY 23
Total number of information security breaches	0	0	0	0
Total number of clients, customers and employees affected by the breaches	0	0	0	0
Total	0	0	0	0

GRI Content Index

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	

GRI 2: General Disclosures 2021

Reference No.	Disclosure	Requirements omitted	Reason	Section
2-1	Organizational details			Vedanta at a Glance, Pg. 13
2-2	Entities included in the organization's sustainability reporting			About this Report, Pg. 6-7
2-3	Reporting period, frequency and contact point			About this Report, Pg. 6-8 Integrated Annual Report FY 2022-23 published on 19th June 2023
2-4	Restatements of information			Restatement of Information, Pg. 8
2-5	External assurance			Data Compilation Methodology and Assurance, Pg. 8 Independent Assurance Statement, Pg. 145-147
2-6	Activities, value chain and other business relationships			Products and Production, Pg.14 Integrated annual report FY 23, Pg. 292
2-7	Employees			Workforce Breakdown, Pg. 130 Integrated annual report FY 23, Pg. 292
2-8	Workers who are not employees			Workforce Breakdown, Pg. 130 Integrated annual report FY 23, Pg. 292

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
2-9	Governance structure and composition			Aim 9: Adhere to global business standards of corporate governance, Pg. 98-99 Sustainability Governance, Pg 17-18 Integrated annual report FY 23, Pg. 238-245, 253
2-10	Nomination and selection of the highest governance body			Integrated annual report FY 23, Pg. 257-258
2-11	Chair of the highest governance body			Sustainability Governance, Pg 17-18 Integrated annual report FY 23, Pg. 243
2-12	Role of the highest governance body in overseeing the management of impacts			Sustainability Governance, Pg. 17-18 Integrated annual report FY 23, Pg. 262-263
2-13	Delegation of responsibility for managing impacts			Sustainability Governance, Pg. 17-18 ESG Risk Governance, Pg 103-104 Integrated annual report FY 23, Pg. 262-263
2-14	Role of the highest governance body in sustainability reporting			Sustainability Governance, Pg. 17-18 Integrated annual report FY 23, Pg. 262-263
2-15	Conflicts of interest			Integrated annual report FY 23, Pg. 248, 257, 302-303
2-16	Communication of critical concerns			Integrated annual report FY 23, Pg. 310-312
2-17	Collective knowledge of the highest governance body			Integrated annual report FY 23, Pg.242, 247
2-18	Evaluation of the performance of the highest governance body			Integrated annual report FY 23, Pg.249-250

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
2-19	Remuneration policies			Vedanta Sustainability Assurance Process (VSAP), Pg 19 Integrated annual report FY 23, Pg. 85, 186-187, 359, 413, 536-537,
2-20	Process to determine remuneration			Integrated annual report FY 23, Pg. 186-187, 257-258
2-21	Annual total compensation ratio			Integrated annual report FY 23, Pg. 313
2-22	Statement on sustainable development strategy			In Conversation with the Group CEO & Chief Safety Officer, Pg 11
2-23	Policy commitments			Upholding integrity and accountability through policy infrastructure, Pg. 99 Policy Advocacy, Pg 105 Code of Business Conduct and Ethics, Vedanta Policies & Practices, Vedanta Sustainability Framework
2-24	Embedding policy commitments			Upholding integrity and accountability through policy infrastructure, Pg. 99 Policy Advocacy, Pg 105 Code of Business Conduct and Ethics, Vedanta Policies & Practices, Vedanta Sustainability Framework
2-25	Processes to remediate negative impacts			Risk Management and Controls, Pg 103-105 Compliance Management, Stakeholder Engagement, Grievance Mechanisms
2-26	Mechanisms for seeking advice and raising concerns			Reporting concerns, Pg 99-100

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
2-27	Compliance with laws and regulations			Compliance, Audits and Controls, Pg 105 Environmental Violations, Pg 126 Integrated annual report 2022-23, Pg. 197
2-28	Membership associations			Organisation and Membership, Pg 105
2-29	Approach to stakeholder engagement			Knowing our stakeholders, Pg 24-26
2-30	Collective bargaining agreements			Right to Freedom of Association, Pg 46
3-1	Process to determine material topics			Stakeholder Engagement, Pg 24-26 Approach to Materiality Assessment, Pg 27-30
3-2	List of material topics			Approach to Materiality Assessment, Pg 28
201-1	Direct economic value generated and distributed			Vedanta TTR FY 23, Pg. 11
201-2	Financial implications and other risks and opportunities due to climate change			Vedanta TCFD Report FY 23, Pg 13-25
201-3	Defined benefit plan obligations and other retirement plans			Integrated annual report FY 23, Pg.412-414
201-4	Financial assistance received from government			We do not receive any financial assistance from government
203-1	Infrastructure investments and services supported			*Aim 2* Empowering over 2.5 million families with enhanced skillsets *Aim 3* Uplifting over 100 million women and children through education, nutrition, healthcare and welfare, Pg 49-51 CSR Spend, Pg 127

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
203-2	Significant indirect economic impacts			**Aim 2** Empowering over 2.5 million families with enhanced skillsets **Aim 3** Uplifting over 100 million women and children through education, nutrition, healthcare and welfare, Pg 49-51
204-1	Proportion of spending on local suppliers			Highlights Transforming Communities, Pg 5 Local Procurement, Pg. 47
205-1	Operations assessed for risks related to corruption			Integrated annual report 2022-23, Pg. 197, 302
205-2	Communication and training about anti-corruption policies and procedures			Integrated annual report 2022-23, Pg. 302
205-3	Confirmed incidents of corruption and actions taken			Integrated annual report 2022-23, Pg. 302
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices			Integrated annual report 2022-23, Pg. 321
207-1	Approach to tax			Vedanta TTR FY 23, Pg. 16-19
207-2	Tax governance, control, and risk management			Vedanta TTR FY 23, Pg. 16-19, 29-31
207-3	Stakeholder engagement and management of concerns related to tax			Vedanta TTR FY 23, Pg. 18-19
207-4	Country-by-country reporting			Vedanta TTR FY 23, Pg. 24
11.21.8	Reporting on payments to governments			Vedanta TTR FY 23, Pg. 22-23

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	

Energy

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
3-3	Management of Material Topics			Aim 4 Net Zero Carbon by 2050 or sooner, Pg 54-55 Energy and Carbon Policy
302-1	Energy consumption within the organization			Energy consumption within the organization, Pg 115-117
302-2	Energy consumption outside of the organization			We do not have energy consumption outside the organisation contributing to total energy consumed by Vedanta Ltd
302-3	Energy intensity			Transforming the Planet: Key Highlights, Pg 52
302-4	Reduction of energy consumption			Energy efficiency measures, Pg 59-62
302-5	Reductions in energy requirements of products and services			Shift towards green economy, Pg 60 Vedanta TCFD Report FY 23, Pg 21-22

Water and Effluents

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
3-3	Management of material topics			**Aim 5** Achieving net water positivity by 2030, Pg. 63
303-1	Interactions with water as a shared resource			**Aim 5** Achieving net water positivity by 2030, Pg 63-65
303-2	Management of water discharge-related impacts			Water Withdrawal and Consumption, Pg 65

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
303-3	Water withdrawal			Water withdrawal and discharge, Pg 66 Water Consumption in Water-Stressed Areas, Pg 122
303-4	Water discharge			Water withdrawal and discharge, Pg 66 Wastewater Discharge, Pg 122
303-5	Water consumption			Water withdrawal and discharge, Pg 66 Water Consumption in Water-Stressed Areas, Pg 122

Biodiversity

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
3-3	Management of material topics			Biodiversity Management, Pg. 75-76
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas			Sites adjacent to areas of high biodiversity value, Pg 80 Biodiversity Assessment, Pg 124
304-2	Significant impacts of activities, products and services on biodiversity			Impacts and dependencies identified in the Biodiversity Risk Assessment, Pg 78
304-3	Habitats protected or restored			Biodiversity Mitigating Actions, Pg 80
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations			IUCN red list species and national conservation list species, Pg 124

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
G4-MM2	Number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and number (percentage) of those sites with plans in place			Biodiversity Assessment, Pg 124

Emissions

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
3-3	Management of material topics			Aim 4: Net-carbon neutrality by 2050 or sooner, Pg. 54-55 Air Emissions and Quality, Pg. 82
305-1	Direct (Scope 1) GHG emissions			GHG Scope 1 Emissions, Pg 117 Vedanta TCFD Report FY 23, Pg 28-30
305-2	Energy indirect (Scope 2) GHG emissions			GHG Scope 2 Emissions, Pg 118 Vedanta TCFD Report FY 23, Pg 28-30
305-3	Other indirect (Scope 3) GHG emissions			GHG Scope 3 Emissions, Pg 118-119 Vedanta TCFD Report FY 23, Pg 28-30
305-4	GHG emissions intensity			GHG Intensity, Pg 58 GHG Emissions Intensity, Pg 120 Vedanta TCFD Report FY 23, Pg 21-23
305-5	Reduction of GHG emissions			Achieving Impactful Energy and Emission Reduction Through Targeted Initiatives, Pg 59 Vedanta TCFD Report FY 23, Pg 28-30

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
305-6	Emissions of ozone-depleting substances (ODS)			Our operations do not emit ozone depleting substances
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions			Air Emissions, Pg 120-121
11.2.4	Reporting on climate adaptation, resilience, and transition			Vedanta TCFD Report FY 23

Waste

Reference No.	Disclosure	Omission		Section
3-3	Management of material topics			Waste Management, Pg. 68-70
306-1	Waste generation and significant waste-related impacts			Waste Management, Pg. 68-70
306-2	Management of significant waste-related impacts			Waste Management, Pg. 68-70
306-3	Waste generated			Hazardous Waste, Pg 69
				HVLT Waste Disposal, Mineral Waste Disposal, Pg 70
				Hazardous Waste Generated, Recycled and disposed, Pg 126
306-4	Waste diverted from disposal			HVLT Waste Disposal, Mineral Waste Disposal, Pg 70
306-5	Waste directed to disposal			HVLT Waste Disposal, Mineral Waste Disposal, Pg 70

Tailings Management

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
3-3	Management of material topics			Tailings Management, Pg. 73-74
G4-MM3	Total amounts of overburden, rock, tailings and sludges and their associated risks			Tailings Risk Potential FY 2023, Pg 74

Supplier Environmental Assessment

Reference No.	Disclosure	Omission		Section
308-1	New suppliers that were screened using environmental criteria			Supply Chain Management, Pg 106-107
				Supply Chain, Pg 134-135
308-2	Negative environmental impacts in the supply chain and actions taken			Supply Chain Management, Pg 106-107
				Supply Chain, Pg 134-135

Employment

Reference No.	Disclosure	Omission		Section
401-1	New employee hires and employee turnover			Human Capital, Pg 130-131
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees			Employee Benefits, Pg 114
				Integrated annual report 2022-23, Pg. 536-539
401-3	Parental leave			Paid Parental Leaves, Pg 95
				Integrated annual report 2022-23, Pg. 306

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
Labour/Management Relations				
3-3	Management of Material Topics			Human Rights, Pg 44-47
402-1	Minimum notice periods regarding operational changes			Employee level M3 or below: 8 weeks Employee level M2 above: 12 weeks
Occupational Health and Safety				
3-3	Management of material topics			Our commitment to zero harm, Pg 85
403-1	Occupational health and safety management system			Aim 7: Prioritising safety and health of all employees, Pg. 85-87 Integrated annual report 2022-23, Pg.307-310 Vedanta Safety Standards
403-2	Hazard identification, risk assessment, and incident investigation			Safety Performance, Pg 86-87 Incident cause analysis method (ICAM) for safety investigations, Pg 88 Integrated annual report 2022-23, Pg.307-310 Vedanta Safety Standards Vedanta Incident Reporting Standard
403-3	Occupational health services			Safety Performance, Pg 86-87 Integrated annual report 2022-23, Pg.307-310

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
403-4	Worker participation, consultation, and communication on occupational health and safety			Safety Performance, Pg 89-90 Vedanta Safety Standards Integrated annual report 2022-23, Pg.307-310
403-5	Worker training on occupational health and safety			Employee and Business Partner Training, Pg 87 Integrated annual report 2022-23, Pg.43, 79, 307
403-6	Promotion of worker health			Safety Performance, Pg 89-90 Integrated annual report 2022-23, Pg.307-310
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships			Safety Performance, Pg 86-90 Integrated annual report 2022-23, Pg.307-310 Vedanta Corrective and Preventive Action Management
403-8	Workers covered by an occupational health and safety management system			Integrated annual report 2022-23, Pg. 307-310
403-9	Work-related injuries			Safety Performance, Pg 87 Integrated annual report 2022-23, Pg. 307-310 Safety Performance, Pg 130
403-10	Work-related ill health			Safety Performance, Pg 87 Integrated annual report 2022-23, Pg. 307-310 Safety Performance, Pg 130

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
Training & Education				
404-1	Average hours of training per year per employee			Training & Development, Pg 132
404-2	Programs for upgrading employee skills and transition assistance programs			Learning and Growing, Pg. 110 Employee Development Programs, Pg 132
404-3	Percentage of employees receiving regular performance and career development reviews			Periodic assessment of all employees, Pg 132
Diversity and Equal Opportunity				
3-3	Management of material topics			Aim 8: Promote gender parity, diversity and inclusivity, Pg. 93
405-1	Diversity of governance bodies and employees			Workforce Breakdown: Nationality, Pg 94 Workforce Breakdown: Gender, Pg 95
405-2	Ratio of basic salary and remuneration of women to men			Remuneration ratio of Male to Female, Pg 131
Discrimination				
406-1	Incidents of discrimination and corrective actions taken			Reporting on Breaches, Pg 135 Integrated annual report 2022-23, Pg. 306, 314

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
Freedom of Association and Collective Bargaining				
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk			Right to freedom of association, Pg. 46
Child Labor				
408-1	Operations and suppliers at significant risk for incidents of child labour			Human Rights, Pg 44-45 Supply Chain Management, Pg 106-107 None of our operations and suppliers are exposed to risk of child labour
Forced or Compulsory Labour				
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour			Human Rights, Pg 44-45 Supply Chain Management, Pg 106-107 None of our operations and suppliers are exposed to risk of child labour
Security Practices				
410-1	Security personnel trained in human rights policies or procedures			Security Practices, Pg. 46 Security personnel trained in human rights policies or procedures, Pg 127
Rights of Indigenous Peoples				
3-3	Management of material topics			Indigenous Peoples Rights, Pg 43 Indigenous People

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
411-1	Incidents of violations involving rights of indigenous peoples			Indigenous Peoples Rights, Pg 43

Local Communities

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
3-3	Management of material topics			**Aim 2** Empowering over 2.5 million families with enhanced skillsets **Aim 3** Uplifting over 100 million women and children through education, nutrition, healthcare and welfare, Pg 49-51
413-1	Operations with local community engagement, impact assessments, and development programs			Managing community relations through consultation framework, Pg 41 Active community engagement, Pg 127
413-2	Operations with significant actual and potential negative impacts on local communities			Managing community relations through consultation framework, Pg 41 Active community engagement, Pg 127

Supplier Social Assessment

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
414-1	New suppliers that were screened using social criteria			Supply Chain Management, Pg 106-107 Supply Chain, Pg 134-135
414-2	Negative social impacts in the supply chain and actions taken			Supply Chain Management, Pg 106-107 Supply Chain, Pg 134-135

Public Policy

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
415-1	Political contributions			Integrated annual report 2022-23, Pg. 422

Customer Privacy

Reference No.	Disclosure	Omission		Section
		Requirements omitted	Reason	
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data			Reporting on Breaches, Cybersecurity, Pg 135

UNGC Index

	Principle	Section	Page No.
Human Rights			
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	Human Rights Human Rights Policy	44
Principle 2	Make sure that they are not complicit in human rights abuses	Human Rights due diligence process Human Rights Policy	44
Labour			
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	Right to freedom of association	46
Principle 4	The elimination of all forms of forced and compulsory labour;	Human Rights	44
Principle 5	The effective abolition of child labour; and	Human Rights	44
Principle 6	The elimination of discrimination in respect of employment and occupation.	Human Rights Aim 8: Promote gender parity, diversity and inclusivity	44 93
Environment			
Principle 7	Businesses should support a precautionary approach to environmental challenges;	Transforming the Planet	52-53
Principle 8	Undertake initiatives to promote greater environmental responsibility; and	Transforming the Planet	52-82
Principle 9	Encourage the development and diffusion of environmentally friendly technologies.	Transforming the Planet Factsheet: Environment	52-82 115-126
Anti-Corruption			
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	Upholding integrity and accountability through policy infrastructure	99

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Assurance Statement

Ernst & Young Associates LLP
Block – 'C', 3rd Floor,
22 Camac Street
Kolkata-700016
West Bengal, India

Tel: +91 33 6615 3400
ey.com

EY
Building a better
working world

Independent Assurance Statement

The Management and Board of Directors

Vedanta Limited
Core-6, 3rd Floor, Scope Complex
7, Lodhi Road, New Delhi
Delhi – 110003

Scope

We have been engaged by Vedanta Limited (hereafter "Vedanta") to perform a 'limited assurance engagement,' as defined by International Standards on Assurance Engagements, hereafter referred to as the engagement, to report on following sustainability performance KPIs as per Annexure 1 (the "Subject Matter") , as contained in Vedanta's Sustainability Report FY2022-23, as of 31 August 2023, for the period 1st April 2022 to 31st March 2023 (the "Report").

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

Criteria applied by Vedanta

In preparing the Sustainability Report FY2022-23, Vedanta applied the Global Reporting Initiative (GRI) Standards, GRI Standards was specifically designed for Sustainability Report FY2022-23; as a result, the subject matter information may not be suitable for another purpose.

Vedanta's responsibilities

Vedanta's management is responsible for selecting the Criteria, and for presenting the Sustainability Report FY2022-23 in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records, and making estimates relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000 (Revised)'), and the terms of reference for this engagement as agreed with Vedanta on 3rd January 2023. Those standards require that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Our independence and quality management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, and have the required competencies and experience to conduct this assurance engagement.

EY also applies International Standard on Quality Management 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Sustainability Report FY2022-23 and related information, and applying analytical and other appropriate procedures.

Our procedures included:

- Checking of the standard disclosures regarding the company's material sustainability aspects contained in the report;
- Checking consistency of data / information within the report;
- Testing on a sample basis, (physically and remotely), underlying source information to check the accuracy of the data for the following sites, through consultations with the site team and corporate sustainability team;

S.No.	Entity	Geography	Mode of assurance
1	HZL Debari Smelter	Rajasthan, India	Physical and Virtual
2	HZL Dariba Agucha Mines	Rajasthan, India	Physical and Virtual
3	HZL Zawar Mines	Rajasthan, India	Physical and Virtual
4	HZL Kayad Mines	Uttarakhand, India	Physical and Virtual

5	Hindustan Zinc Limited (HZL), Corporate Office	Rajasthan, India	Virtual
6	Vedanta Limited Lanjigarh refinery	Odisha, India	Physical and Virtual
7	Vedanta Limited Jharsuguda smelter and power plant	Odisha, India	Physical and Virtual
8	BALCO Korba smelters and power plants	Chhattisgarh, India	Physical and Virtual
10	Cairn RJ Oil	Rajasthan, India	Physical and Virtual
11	Cairn RJ Gas	Rajasthan, India	Physical and Virtual
12	Cairn Ravva	Andhra Pradesh, India	Physical and Virtual
13	Cairn Suvali	Gujarat, India	Virtual
14	Cairn Midstream Operations	Rajasthan, India	Virtual
13	Cairn Corporate Office	Haryana, India	Virtual
14	Vedanta Zinc International Black Mountain Mines (BMM)	South Africa	Virtual
15	Vedanta Zinc International Gamsbarg, South Africa	South Africa	Virtual
16	Sesa IOK	Karnataka, India	Physical and Virtual
17	Sesa Value Added Business (VAB)	Goa, India	Physical and Virtual
18	FACOR, Odisha	Odisha, India	Physical and Virtual
19	Talawandi Sabo Power Limited (TSPL)	Punjab, India	Physical
20	ESL Steel Limited (ESL)	Jharkhand, India	Physical
21	Gujarat Met Coke	Gujarat, India	Virtual
22	Sterlite Copper, Silvassa Refinery	Silvassa, India	Physical and Virtual
23	Sterlite Copper, Fujairah Gold	Dubai, UAE	Virtual
24	Vedanta Limited, Corporate Office	New Delhi, India	Virtual

- Executing an audit trail of claims and data streams, on a selective test basis, to determine the level of accuracy in collection, transcription and aggregation processes followed;
- Conducting interview of select representatives of Company's management to understand the current processes in place for capturing sustainability performance data as per GRI Standards, the Company's sustainability vision and the progress made during the reporting period;
- Checking of the Company's plans, policies, and practices, pertaining to their social, environment and sustainable development, to be able to make comments on the completeness of the reporting and degree to which EY believes the report provides a fair and honest representation of the Company's activities.

We also performed such other procedures as we considered necessary in the circumstances.

The assurance scope excludes:
- Data and information outside the defined reporting period-1st April 2022 to 31st March 2023
- Data and information on economic and financial performance of the Company;
- Data, statements and claims already available in the public domain through Annual Report, or other sources;
- The Company's statements that describe the expression of opinion, belief, inference, aspiration, expectation, aim or future intention;
- The Company's compliance with regulations, acts, guidelines with respect to various regulatory agencies and other legal matters.

Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the subject matter for the period of 1st April 2022 to 31st March 2023, in order for it to be in accordance with the Criteria.

Restricted use

This report is intended solely for the information and use of Vedanta and is not intended to be and should not be used by anyone other than Vedanta.

For and on behalf of Ernst & Young Associates LLP.

Saunak Saha
Partner
31 August 2023
Kolkata, India

SUSTAINABILITY REPORT FY 2023

TRANSFORMING
COMMUNITIES

TRANSFORMING
THE PLANET

TRANSFORMING
THE WORKPLACE

Annexure-1

S.No	GRI Indicators	Disclosures
1	GRI 2-1	Organisation details
2	GRI 2-2	Entities included in the organization's sustainability reporting
3	GRI 2-4	Restatements of information
4	GRI 2-6	Activities, value chain and other business relationships
5	GRI 2-7	Information on employees and other workers
6	GRI 2-23	Governance structure and composition (2-9)
7	GRI 2-23	Policy commitments
8	GRI 2-28	Membership of associations
9	GRI 2-29	Approach to stakeholder engagement
10	GRI 2-30	Collective bargaining agreements
11	GRI 3-2	List of material topics
12	GRI 202-1, 202-2	Market Presence
13	GRI 205-1 to GRI 205-3	Anti-corruption
14	GRI 302-1 to 302-4, OG2, OG3	Energy
15	GRI 303-3 to 303-5	Water and Effluents
16	GRI 304-1 to 304-4, MM1, MM2, OG4	Biodiversity
17	GRI 305-1 to 305-7	Emissions
18	GRI 306-3 to 306-5, MM3, OG5, OG6, OG7	Waste
19	OG8	Benzene, lead and sulphur content in fuels
20	GRI 308-1, 308-2	Supplier Environmental Assessment
21	GRI 401-1 to 401-3	Employment
22	GRI 402-1, MM4	Labor/Management Relations
23	GRI 403-1 to 403-10	Occupational Health and Safety
24	GRI 404-1 to 404-3	Training and Education
25	GRI 405-1, 405-2	Diversity and Equal Opportunity
26	GRI 406-1	Non-Discrimination
27	GRI 407-1	Freedom of Association and Collective Bargaining
28	GRI 408-1	Child Labour
29	GRI 409-1	Forced or Compulsory Labour
30	GRI 410-1	Security Practices
31	GRI 411-1, MM5, MM6, MM7, OG9, OG10	Rights of Indigenous People
32	GRI 413-1, 413-2	Local Communities
33	GRI 414-1	Supplier Social Assessment
34	MM8	Artisanal and Small-Scale Mining
35	MM9	Resettlement
36	MM10, OG11	Closure Planning
37	OG13	Number of process safety events, by business activity

REGISTERED OFFICE: Vedanta Limited

1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala,

Andheri (East), Mumbai – 400093, Maharashtra, India

T +91 22 6643 4500 | F +91 22 6643 4530

CIN: L13209MH1965PLC291394

www.vedantalimited.com