

IN  
ACTION

## Transparency, Responsibility, and Progress

SUSTAINABLE DEVELOPMENT REPORT 2022-23



**aluminium**



# Sustainability in Action

TRANSPARENCY, RESPONSIBILITY AND PROGRESS



Aluminium, widely recognised as the metal that shapes the future, plays a pivotal role across diverse industries due to its adaptability, lightweight characteristics, and recyclability. It seamlessly aligns with the global shift towards sustainability, making it indispensable in sectors spanning aerospace, automotive, construction, and electronics.

At Vedanta Aluminium, we wholeheartedly embrace aluminium's potential as a symbol of innovation and sustainability. Our commitment to sustainability is not mere rhetoric; it is deeply ingrained in the very fabric of our operations, policies, and organisational culture. To translate this commitment into action, we adopt a Triple Bottom Line approach anchored in the principles of Transparency, Responsibility, and Progress.

Transparency forms the bedrock of our approach. We firmly believe that trust is cultivated through transparent communication. In all our interactions with stakeholders, including investors, partners, regulatory authorities, and local communities, we prioritise candid and open dialogue. This commitment extends to providing precise and comprehensive information about our operations, environmental practices, and the socioeconomic impact we exert on our surroundings.

Responsibility is the cornerstone of our corporate ethos. We acknowledge the far-reaching effects of our operations, not only on the environment but also on the local communities where we operate. Consequently, we actively employ eco-friendly technologies, adhere to stringent environmental standards, and embrace sustainable practices to minimise our environmental footprint. Beyond regulatory compliance, we take proactive steps in social responsibility to instigate positive change and enhance the well-being of local communities.



Our path towards sustainability is characterized by ongoing improvement. We are dedicated to reducing our carbon footprint, enhancing energy efficiency, and advocating for recycling and circular economy principles within our industry. By prioritising innovation and research, we actively develop cleaner and more sustainable technologies for aluminium production. Through digital integration, we streamline processes and optimize resource usage, further advancing our commitment to sustainability. This approach positions us not only as compliant with regulations but also as a driving force in advancing the global sustainability agenda.





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"As a prominent figure in the global aluminium industry, we are deeply committed to the values of transparency, responsibility, and unwavering progress. Our leadership is not just a matter of pride; it's a profound responsibility. We take on the mantle of aligning our operations with the Triple Bottom Line principle of sustainable development, shaping a sustainable future for all."

# About the Report

We, at Vedanta Aluminium (referred to as 'the Aluminium Sector' henceforth), are sharing our fourth annual Sustainable Development Report. This report highlights our ongoing efforts to operate our business in a way that respects the environment and society, going beyond stakeholder expectations. Within this report, we discuss our sustainability achievements for the year from 1st April 2022 to 31st March 2023. We focus on critical aspects of our business operations that are of great concern to those interested in our work. It's worth noting that the report emphasizes our Aluminium Business, a subset of our larger business. This covers elements like our Aluminium Smelters in BALCO (Chhattisgarh) and Jharsuguda (Odisha), the Alumina Refinery in Lanjigarh (Odisha), and the power plants at these three locations that support our operations.

We have used the widely recognised GRI (Global Reporting Initiative) Standards as a reference while creating this report. This approach aligns with the principles of the United Nations Global Compact (UNGC) and corresponds to the United Nations Sustainable Development Goals (UN-SDGs). Additionally, in this year's report, we've ensured our content follows the TCFD (Task Force on Climate-Related Financial Disclosures) framework. This framework helps us disclose information related to how our business is impacted by climate change and how we manage these risks and opportunities. This additional alignment enhances the quality and relevance of the information presented within this report.

Vedanta Limited (hereinafter referred to as 'the Company') stands as a prominent global natural resource enterprise engaged in activities spanning metals, minerals, mining, oil, gas, and energy sectors. Vedanta Aluminium operates under the umbrella of Vedanta Limited, a distinct division or business unit. The Company's aluminium brands are registered on the London Metal Exchange (LME), and our products are in high demand across both domestic and international markets.

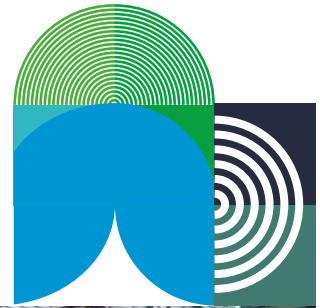




The purpose of this report is to offer updates to our stakeholders and reassure them about our dedication to generating sustainable value on a global scale. We achieve this by consistently enhancing our performance in important environmental, social, and governance aspects related to our business.

Being a prominent player in the aluminium industry worldwide, we feel a deep sense of pride and

responsibility. Our goal is to align our operations with the principle of Triple Bottom Line, which focuses on sustainable development. Looking back at our business performance in the last twenty years, it becomes evident that we are committed to responsible and purposeful growth in aluminium, a metal with immense potential for the future.



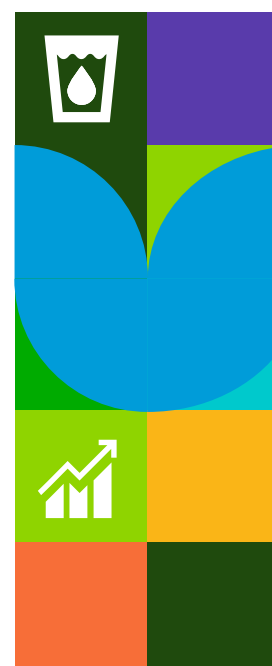
**Shaping the Future:** Aluminium Billets, the green metal for a sustainable tomorrow



“Fuelled by our unwavering commitment to sustainability, we’re harnessing the limitless potential of aluminium as the ‘metal of the future,’ leading us toward a greener tomorrow.”

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# About Us

Vedanta Limited, headquartered in Mumbai, India, is a prominent worldwide conglomerate focusing on natural resources and technology. It operates in India, South Africa, Liberia, and Namibia. The company has a diverse presence across various sectors, including Oil & Gas, Zinc-Lead-Silver, Aluminium, Iron Ore, Steel, Copper, Ferro Alloys, Power, Nickel, Semiconductor, and Glass. Each of these sectors functions as an independent vertical within the company's structure.

Over the years, Vedanta has positioned itself as a significant conglomerate in the natural resources and technology sectors, with a focused effort to expand its presence in India while maintaining global operational standards. Vedanta Aluminium manages the company's aluminium business. We are recognised as one of the world's top aluminium producers and stand as India's largest aluminium manufacturer, with an annual production capacity of 2.358 million metric tonnes (MMTPA). Despite challenges from geopolitics and market shifts, we accomplished a record-breaking aluminium production of 2.292 million MT by the close of FY 2022-23.

In the last two decades, we've been instrumental in advancing India's economy, contributing to the country's finances, and creating many jobs. We've laid out a thorough strategy to lead in ESG initiatives in the natural resources sector. Our goal is to reach carbon neutrality by 2050, or possibly sooner, with Vedanta Limited committing to \$5 billion over the next ten years to accelerate the shift to net-zero operations. Vedanta Limited is listed on both the Bombay Stock Exchange and the National Stock Exchange.



**Vedanta Aluminium** (or Aluminium Sector) comprises refineries, smelters, and various power plants, including captive and integrated ones. The three units are: Vedanta Aluminium (Jharsuguda), BALCO (Chhattisgarh), and Vedanta Aluminium (Lanjigarh). The integrated power plants are located at BALCO and Jharsuguda.

**Vedanta Aluminium Business** (or Aluminium Business) includes refineries and smelters and exclusively captive power plants from Vedanta Aluminium (Jharsuguda), BALCO (Chhattisgarh), and Vedanta Aluminium (Lanjigarh).

Using cutting-edge facilities in India, we manufacture an extensive variety of top-tier aluminium products that serve numerous industries, including aerospace, aviation, automobiles, electric vehicles, construction, renewable energy, consumer goods, electronics, packaging, and more. Beyond aluminium production, our assets have connected remote and underserved areas to economic growth by making substantial contributions to skill development, sustainable livelihoods, women and child welfare, healthcare, education, sports, and culture.

Guided by the principles of sustainable development, we are committed to discovering the boundless possibilities of aluminium as the 'metal of the future,' aiming for a greener tomorrow.

## AT A GLANCE

We are the largest primary producers of Aluminium in India

### BUSINESS

1. Aluminium smelters at Jharsuguda
2. Aluminium smelters at Korba (BALCO)
3. Alumina refinery at Lanjigarh

### PRODUCTION VOLUME

2,292 kt of Aluminium  
1,968 kt of Alumina



### Our Core Purpose:

Our goal is to create long-term value for all our stakeholders through research, discovery, acquisition, sustainable development, and utilisation of diversified natural resources. For accomplishing that, we empower our people to drive excellence and innovation. We demonstrate world-class standards of governance, safety, sustainability, and social responsibility.



### Our Core Values:

Our core values underpin everything we do at Vedanta. These universal values guide our behaviour, as we expand into new markets and countries.



#### Care

Commitment towards Zero-Harm to environment and neighbouring communities.



#### Trust

Foster a culture of transparency and open dialogue to gain trust and respect.



#### Entrepreneurship

Create an enabling environment to support employees pursuing personal and professional excellence.



#### Innovation

Innovate to achieve our vision of Zero Harm, Zero Waste and Zero Discharge.



#### Excellence

Deliver productivity improvement and cost reduction through benchmarking and best practices deployment.



#### Integrity

Demonstrate ethical behaviour commensurate with local and international practices.



#### Respect

Listen to voices, opinions and concerns of stakeholders.



### Our Mission: Transforming for Good

**Our mission statement is backed by 3 pillars:** Transforming communities, Transforming the planet, and Transforming the workplace

## From Chairman's Desk



**ANIL AGARWAL**

Non Executive Chairman

### Pioneering Sustainability in the World of Aluminium

I'd like to start by underscoring the importance of aluminium, often recognized as the 'green metal,' in shaping a sustainable future. Its exceptional versatility, light weight, and recyclability make it a crucial component in our quest for sustainability. At Vedanta, we take great pride in our role as a driving force behind sustainability, impacting not just our esteemed customers and stakeholders but also the global community.

Our tireless pursuit of excellence has established us as a global leader in the production of top-notch aluminium products and specialized alloys, catering to a wide range of industries. With substantial aluminium assets strategically situated in Odisha and Chhattisgarh, we occupy a prominent position in India's burgeoning aluminium industry.

In line with our unwavering commitment to innovation and expansion, we are actively enlarging our production facilities and alumina refinery. This expansion signifies our dedication to meeting the ever-evolving demands of our customers and our firm determination to contribute to a sustainable future.

I want to express my sincere appreciation for your ongoing support as we embark on this collective journey towards progress and sustainability. Today, we proudly lead the way in the production of low-carbon aluminium products under the 'Restora' brand, aligning ourselves with global initiatives aimed at curbing carbon emissions. Our steadfast commitment to innovation drives us to continuously develop tailored products for vital industries, reaffirming our position as market leaders. Beyond our business achievements, our assets have made a substantial contribution to socio-economic growth in remote regions of our nation.

At the heart of our values lies an unwavering dedication to positively impact the communities we serve. As we continue our journey in the aluminium industry, we do so with a deep sense of responsibility, innovation, and purpose. I'm excited about the future, where Vedanta Aluminium will play an even more pivotal role in shaping a sustainable and prosperous world.

### Embracing 'Transforming for Good'

This year, I am also delighted to reaffirm our steadfast commitment to ESG, a core element of our corporate



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identity. Our enhanced ESG strategy, 'Transforming for Good,' is firmly grounded in the principles of benefiting communities, preserving the environment, and cultivating an empowering workplace. This strategy has provided us with explicit objectives and roadmaps, encompassing ambitious goals like achieving net carbon neutrality, attaining water positivity, and fostering a more eco-conscious business model. These initiatives are yielding concrete results, bolstering the enduring sustainability of our operations.

In FY 2023, we embarked on an extended journey under our more inclusive theme, 'Transforming Together.' This endeavour is crafted to promote collaborative actions that generate shared value. As a responsible corporate entity, we remain resolute in our quest to attain zero harm, zero discharge, and zero waste. Our redefined vision, 'Transforming for Good,' revolves around three pivotal domains: the transformation of communities, the preservation of our planet, and the upliftment of the workplace. Through these fundamental areas, we are unwavering in our commitment to generate positive value for our stakeholders while minimizing our environmental footprint.



#### 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

Under the banner of 'Transforming for Good,' our aim is to deeply embed ESG considerations within every aspect of our decision-making process. As our business expands and makes a meaningful impact, we wholeheartedly embrace our role as global partners, aligning our vision with the United Nations' Sustainable Development Goals (UN SDGs). Our unwavering commitment extends to addressing critical challenges like the climate crisis, water scarcity, biodiversity conservation, equity, inclusivity, human rights, and social development, with the goal of shaping a more sustainable and equitable world.

As we look ahead, Vedanta Aluminium remains firmly committed to serving as a driving force for positive change, with an unwavering dedication to advancing a more sustainable and equitable world. Our aspirations, articulated in the 'Transforming for Good' strategy, encompass not only the transformation of communities, the preservation of our planet, and the enhancement of our workplace but also our steadfast focus on safety, achieving gender parity, fostering diversity, and upholding strong corporate governance. Together, we are forging a path toward a brighter and more sustainable future that benefits all of humanity.

On this note, I extend my heartfelt gratitude to all of you for your continued faith and trust in our company. May our aluminium, the metal of the future, serve as the cornerstone for a brighter and greener future for everyone.

**Anil Agarwal**  
Non-Executive Chairman

## Group CEO's Message



### SUNIL DUGGAL

Group CEO and Chief Safety Officer

#### Navigating Sustainable Development Goals (SDGs)

At Vedanta, our unwavering commitment to sustainable development is not just a strategic choice; it's at the very core of our identity. We prioritize health, safety, and environmental considerations in all that we do, and our dedication to these principles drives our decision-making.

We've meticulously crafted a comprehensive framework aimed at positioning Vedanta as a pioneer in ESG (Environmental, Social, and Governance) practices within the natural resources sector. This framework reflects our deep-rooted commitment to environmental responsibility. One of our most ambitious goals is to achieve carbon neutrality by 2050, or perhaps even earlier.

But our commitment doesn't stop at environmental sustainability; it extends to society as well. Giving back is a fundamental part of our DNA, and we take great pride in our efforts to enhance the lives of local communities.

Under the banner of "Transforming for Good," we encapsulate our ambition to infuse ESG principles into every single business decision we make. As our business continues to grow and make a meaningful impact, we fully embrace our role as global partners. Our vision closely aligns with the United Nations' Sustainable Development Goals (UN SDGs), and we actively address pressing global challenges. These include the climate crisis, water scarcity, biodiversity loss, equity, inclusivity, human rights, and social development.

In essence, we employ Environmental, Social, and Governance (ESG) principles at the very heart of our decision-making processes. These principles guide us in ensuring that our business practices are not only responsible but also sustainable. We understand that our actions have a profound impact, and it is our duty to be stewards of positive change. This holistic approach underscores our commitment to responsible and sustainable operations, and it is our way of contributing to both global sustainability goals and the value we provide to our stakeholders.





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Throughout the year, we pursued structural initiatives aimed at optimizing our operations. This included fine-tuning our coal and bauxite mix, enhancing capacity utilization, and implementing strategic growth and vertical integration projects. An important highlight was the successful completion of the Jharsuguda capacity ramp-up to 1.8 MTPA, setting the stage for future growth. Looking ahead, our primary focus remains on the expansion of the Lanjigarh refinery from 2 MTPA to an impressive 5 MTPA, a strategic move that positions us for long-term success. ”

#### Celebrating Achievements and Charting Our Course Ahead

FY 2023 was a year filled with significant milestones and strategic advancements that have further solidified our position in the industry.

One of our most noteworthy accomplishments was achieving the highest-ever aluminium production, totalling 2.29 million tonnes. Notably, this included 59 kt of green aluminium, proudly branded as Restora and Restora Ultra. This achievement showcases our dedication to sustainability and innovation.

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On the bauxite front, we have been issued a Letter of Intent (LOI) for the Sijimali bauxite block, boasting an estimated

reserve of 311 million tonnes. This bolsters our resource base and reinforces our commitment to responsible and sustainable operations.

I'm also pleased to share that our efforts in sustainability and responsible business practices were recognized as we were ranked 2nd among DJSI's ranked aluminium peers. This recognition underscores our dedication to operating in an environmentally and socially responsible manner.

These achievements reflect our collective commitment to excellence and continuous improvement. I'm proud of the dedication and hard work that each of you has contributed to making this year a resounding success. As we move forward, let's remain focused on our goals and continue to drive innovation, sustainability, and growth in our business.

Thank you for your unwavering dedication to Vedanta Aluminium, and I look forward to another year of remarkable accomplishments together.

**Sunil Duggal**

Group CEO and Chief Safety Officer



## From our Aluminium Sector CEO



### RAHUL SHARMA

Aluminium Sector CEO

#### Strengthening Our Institutional Foundation

I take great pride from our robust institutional foundation and the extensive array of policies that form the cornerstone of our operations at Vedanta Aluminium. These frameworks function as guiding beacons, enabling us to diligently track our progress while cultivating invaluable relationships with our stakeholders. Our unwavering dedication to safety and sustainability is an integral part of this institutional framework, equipping us to rigorously monitor our progress and nurture meaningful connections with our stakeholders.

Looking back at our achievements in the past year, we've reached significant milestones:

#### **Risk Integration:**

We've devoted ourselves to seamlessly integrating climate-related risks and opportunities into our broader business risk management processes.

#### **Net Zero Carbon:**

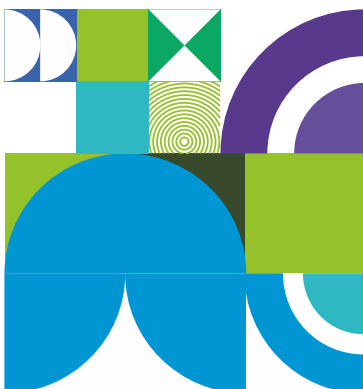
Our ultimate aspiration is to transition into a Net Zero Carbon organization by 2050.

#### **Emissions Reduction:**

We have established ambitious goals for reducing our Scope 1 and 2 emissions, aiming to achieve a target of 16.6 tCO<sub>2</sub>e/T by 2025, down from 19.3 tCO<sub>2</sub>e/T in 2021. This represents a roughly 14% intensity reduction from the FY 21 baseline for our aluminum business, marking a significant step toward achieving our net zero emissions target by 2050. Furthermore, we are steadfast in our commitment to reduce Scope 3 emissions intensity for the aluminium sector by 25% by 2030, using the 2021 baseline as our reference point.

#### **Renewable Energy:**

In alignment with our decarbonisation journey, we are dedicated to significantly increasing our utilization of renewable energy sources. By 2025, our goal is to derive 7% of our total power consumption from renewables, and by 2030, we aim for an impressive 30%. Achieving these goals involves forging Power Purchase Agreements (PPAs) and harnessing 400 MW of renewable energy by 2025, with further scaling up to an ambitious 1500 MW by 2030.



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We lead by example with India's largest fleet of electric forklifts and a goal of achieving full decarbonisation of our Light Motor Vehicle fleet by 2030.”

#### Community Resilience:

Our commitment extends to supporting climate resilience initiatives in the communities surrounding our operations, recognizing their pivotal role in shaping a more sustainable future.

#### Enhanced Disclosure:

Transparency is a cornerstone of our commitment, and we provide comprehensive disclosures on climate-related risks and opportunities to keep our stakeholders well-informed and engaged.

#### Our Milestones in Sustainability and Growth

I'm delighted to share that we've successfully secured USD 250 million through Sustainability Linked Loans (SLL) from leading international banks, reaffirming our commitment to sustainability and carbon reduction. These funds will bolster our capital expenditure initiatives, enabling the expansion of our production of environment friendly aluminium products. Our lending partners, mark the commencement mark the commencement of our term lending relationships, underscoring our dedication to fostering meaningful partnerships that drive positive change. These funds will bolster our capital expenditure initiatives, enabling the expansion of our production of environment friendly aluminium products.

In the electric vehicle sector, we lead by example with India's largest fleet of electric forklifts and a goal of achieving full decarbonisation of our Light Motor Vehicle fleet by 2030.

Excitingly, BALCO and Jharsuguda have successfully trialed biodiesel in smelter operations, aligning with our mission to reduce our carbon footprint and promote responsible practices.

These accomplishments reflect our unwavering dedication to sustainability, innovation, and responsible business. Together, we are shaping a brighter, more sustainable future.

We owe our remarkable performance, even amid market uncertainties, to the unwavering dedication of our employees and valued business partners. I also wish to express my sincere gratitude to our stakeholders for their continuous support. In this report, we proudly present the key achievements across Governance, Economic, Environmental, and Social dimensions, along with our ambitious targets for 2025 and 2030. On this note, I extend an invitation for you to explore 'Sustainability in Action: Transparency, Responsibility, and Progress,' which constitutes Vedanta Aluminium's Sustainable Development Report for FY 2023.

**Rahul Sharma**

Aluminium Sector CEO



# From our Chief Transformation Officer



**ABHIJIT PATI**

Chief Transformation Officer

## Embracing Sustainability

I am delighted to present Vedanta Aluminium's fourth annual Sustainable Development Report for the year 2022-23, centred around the theme "Sustainability in Action: Transparency, Responsibility, and Progress." This report underlines our enduring commitment to not only meet but exceed stakeholder expectations while firmly embedding sustainability at the heart of our operations, particularly within our Aluminium Business.

In the creation of this report, we have diligently followed internationally recognized standards, including the GRI (Global Reporting Initiative) Standards. Our alignment with the principles of the United Nations Global Compact (UNGC) and the United Nations Sustainable Development Goals (UN-SDGs) reinforces our dedication to responsible and sustainable business practices. Furthermore, we have integrated the TCFD (Task Force on Climate-Related Financial Disclosures) framework, significantly enhancing the calibre and relevance of our disclosures related to climate change impacts and risk management.

## Responsible Growth and Global Recognition

Vedanta Limited, a prominent global natural resource enterprise, is home to Vedanta Aluminium, known for its registered aluminium brands on the London Metal Exchange (LME). Through this report, we aim to provide our stakeholders with comprehensive updates and reaffirm our unwavering commitment to sustainable value creation. Our journey is firmly grounded in the Triple Bottom Line principle, emphasizing responsible and purposeful growth within the aluminium industry.

We take immense pride in our achievements, including the BIS certification for our high-quality product range and global recognition through the Environmental Product Declaration (EPD) for our sustainability endeavours, encompassing reduced energy consumption and greenhouse gas emissions. Another notable milestone is the ASI certification of our SEZ-based smelter in Jharsuguda, Odisha serving as a testament to our resolute commitment to sustainable practices.





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#### Fulfilling Our Pledge

Our commitments in sustainability, carbon neutrality, and transparency underscore our steadfast dedication to these core principles. Our pursuit of sustainable growth is characterized by an unwavering commitment to resource efficiency, achieving peak asset and process efficiency, and implementing strategic measures to reduce our carbon footprint. In response to the urgent call for climate action, we have embarked on transformative initiatives across all aspects of our diverse business units, closely aligning our reporting practices with the esteemed guidelines set by the Task Force on Climate-related Financial Disclosures (TCFD).

Our Climate Management Commitments in the Aluminium Sector encompass risk integration into broader business risk management processes, our overarching goal to

achieve Net Zero Carbon status by 2050, ambitious targets for emissions reduction, increased utilization of renewable energy sources, support for community climate resilience, and enhanced transparency and enhanced transparency through comprehensive climate-related disclosures. These commitments exemplify our resolute dedication to sustainability, climate action, and responsible business practices.

We extend our sincere gratitude to you for joining us on this journey of sustainability, transparency, and progress. Together, we are shaping a brighter and more sustainable future.

**Abhijit Pati**

Chief Transformation Officer





## Operations and Assets

Vedanta Aluminium's operations includes separate Business Units, which consist of two Aluminium smelters, an alumina refinery, power plants, as well as coal and bauxite mines located in Odisha and Chhattisgarh states of India. With an annual capacity of producing over 2.358 million MT of aluminium, Vedanta Aluminium holds the position of being India's largest primary aluminium manufacturer. In the fiscal year 2023, we achieved a record-high production of 2.292 million MT of aluminium. Within the Aluminium Sector, we manage two bauxite mines with anticipated capacities of 1.25 MTPA and 0.75 MTPA respectively, situated in Kawardha and Mainpat regions of Chhattisgarh. Additionally, the sector oversees a world-class alumina refinery in Lanjigarh, Odisha, a region that boasts India's largest bauxite reserves. The refinery is on a growth journey from 2 MTPA to 5 MTPA, with a vision of being the largest alumina producer globally, in the coming years.

Our aluminium smelter located in Jharsuguda, Odisha, stands as the world's largest single-location aluminium smelter outside of China, exhibiting a capacity of 1.8 MTPA. Another independent smelting unit in the sector is the Bharat Aluminium Company Limited (BALCO), situated in Korba, Chhattisgarh. This unit currently has an annual production capacity of 0.58 MTPA and

is undergoing expansion to reach 1 MTPA. BALCO, which is 51% owned by Vedanta Limited and 49% by the Government of India, is renowned as a remarkable success in disinvestment and privatization in India. It has experienced unprecedented growth, increasing from 100 KTPA in FY 2001 to 575 KTPA in FY 2020.

Both smelting facilities feature coal-based Captive Power Plants (CPP) to ensure a reliable energy supply for the aluminium smelters. Additionally, each complex has an Independent Power Plant (IPP) that provides electricity to the respective state grids. The company possesses the Chotia coal block in Chhattisgarh, which can extract 1million MT annually, though it's presently under care and maintenance.

In recent years, we have acquired new coal mines, namely Jamkhani (2.6 MTPA), Radhikapur (West) (6 MTPA), and Kuraloi (A) North (8 MTPA), through competitive bidding by the Government of India. All three mines are in Odisha. We have operationalized Jamkhani Mines in FY 2023 and our plan is to operationalize Kurloi (A) North and Radhikapur (West) in the next fiscal year. These coal blocks, rich in reserves and close to our Jharsuguda smelter, will enhance our fuel security and aid in our goal of minimising inbound logistical GHG emissions.

Assets	Location	Capacity (million MT/annum)
Bauxite Mines	Kawardha, Mainpat	2
Coal Block	Chotia, Jamkhani, Radhikapur West, Kuraloi (A) North	17.6
Alumina Refinery	Lanjigarh	2
Aluminium Smelter	Jharsuguda, Korba	2.3



Alumina Refinery, Lanjigarh (Odisha)



Aluminium Smelter, Jharsuguda (Odisha)



Aluminium Smelter, BALCO (Chhattisgarh)

## Markets and Products

The global push for Net Zero commitments, coupled with a growing awareness of sustainability in production and consumption, will impact the metals and minerals industry. Achieving net zero emissions is closely tied to using metals. In this context, sustainable options like aluminium, known for being eco-friendly, will become essential components in both existing and emerging clean technologies. This influence will span various areas, including energy storage, electric vehicles, renewable energy, eco-friendly products, infrastructure advancements, responsible packaging, and more, shaping a future focused on responsibility and innovation.

With a wide array of meticulously designed products, Vedanta Aluminium is prepared to drive this progress and meet the changing requirements of global aluminium consumers. We currently hold a prestigious position as the favoured supplier for discerning customers in India and 50 countries across the Americas, Europe, Asia, Middle East, and Africa, highlighting our unmatched global presence. It is enabled through our expansive port and depot network with 8 ports and 9 depots across India.

Our customer-centric approach involves tailoring our products and services to meet specific customer needs, ensuring satisfaction and value. We prioritise building strong relationships, offering comprehensive solutions, and investing in innovation and ESG practices. Our collaboration with customers, R&D capabilities, and technical expertise drive groundbreaking advancements in aluminium.

Our facilities in Jharsuguda and BALCO combine our engineering expertise with cutting-edge automation and sustainability-driven operations, all aimed at delivering value to our customers. Our range of products includes Aluminium Billets, Primary Foundry Alloys, Wire Rods, Slabs, Rolled Products (Hot & Cold), Flip Coils, Ingots, AlSi T-Ingots, P1020 Ingots, Sow Ingots, and Hot/Liquid Metal. Harnessing the exceptional properties of aluminium, we're dedicated to broadening our value-added offerings, incorporating specialized products like Alloy wire rod, Aluminium circles, roofing sheets, High-Speed Billets and Cylinder-head Alloys.




### Aluminium Park

In collaboration with the Odisha Industrial Infrastructure Development Corporation (IDCO), we embarked on the establishment of the Vedanta Aluminium Park, strategically situated alongside our cutting-edge Jharsuguda aluminium smelter, which ranks among the world's largest.

The Aluminium Park will offer a comprehensive range of facilities, encompassing water, power, hot metal supply, and a dross processing plant, all meticulously designed to cater to manufacturing companies within its confines. Its proximity to our Jharsuguda smelter not only grants access to the Centre of Excellence and R&D Centre for downstream aluminium products but also translates into significant cost savings through direct access to high-quality molten metal. This ensures the competitiveness of our products while meeting global quality standards. Perhaps most importantly, this integrated approach contributes significantly to reducing the carbon footprint along the entire value chain.

The Vedanta Aluminium Park is poised to attract investments exceeding INR 2,000 crores into Odisha, engaging a multitude of MSMEs and infusing an annual economic stimulus of INR 4,500 crores into the state. This transformative initiative possesses the potential to generate over one lakh employment opportunities, benefiting a community of more than 4 lakh individuals.



<p><b>ISO 9001:2015</b> (Quality Management System) Certified for the production and supply of primary aluminium and alloys</p>	<p><b>IATF 16949:2016</b> Certified for the production and supply of PFA and Billets for various applications to the automotive industry</p>	<p><b>ISO/IEC 17025:2017</b> NABL accreditation for laboratory for Testing Accreditation Certification</p>
<p><b>ISO 45001: 2018</b> Operational sites certified for Occupational Health and Safety Management.</p>	<p><b>ISO 14001: 2015</b> (Environment Management System) Certified for the production and supply of primary aluminium and alloys</p>	<p><b>ISO 50001: 2018</b> (Energy Management System) Certified for the production of primary aluminium and alloys</p>
<p><b>ASI Performance Standard V2 (2017) Certification</b> Certified for producing and delivering billets, wire rods, primary foundry alloys (PFA), ingots, sow ingots, and our 'Restora' brand of eco-friendly aluminium products.</p> 	<p><b>Bureau of Indian Standards (BIS)</b> For primary ingots, alloy ingots and cast bars, wire rods, rolled products (sheet, plate-conductors, and plate-general engineering)</p> 	<p><b>Environmental Product Declaration</b> In accordance with ISO 14025 for primary aluminium</p> 

With the increasing momentum behind the demand for sustainable products, we are strategically poised to address this expanding market.





## RESTORA: PIONEERING LOW-CARBON ALUMINIUM FOR A GREENER FUTURE

In FY2022, we introduced 'Restora,' an environmentally conscious aluminium brand offering options with a reduced carbon footprint. This historic launch marked Vedanta Aluminium as the first Indian aluminium company to venture into this pioneering initiative. The Restora brand includes two primary product lines:

- **Restora (Low-Carbon Aluminium):** Crafted at our state-of-the-art smelter powered by renewable energy sources, Restora boasts GHG emissions significantly below the benchmark of 4 tCO<sub>2</sub>e per tonne for low-carbon aluminium.
- **Restora Ultra (Ultra Low-Carbon Aluminium):** Derived from recovered aluminium, a result of Vedanta's collaboration with Runaya Refining—an innovative Indian startup specializing in resource solutions. This process, utilizing patented TAHA International S.A. technology at Vedanta's facilities, results in one of the world's smallest carbon footprints.

Both products are customizable for various applications, including Ingots, Billets, Wire Rods, and more, tailored to meet diverse industry needs. Their low-carbon credentials have been independently verified by a global assurance firm. As consumer awareness regarding product origins continues to rise, Restora by Vedanta Aluminium provides unequivocal assurance that the aluminium they purchase ranks among the world's lowest in terms of carbon emissions.

vedanta | aluminium  
transforming for good

**Restora**<sup>®</sup>

vedanta | aluminium  
transforming for good

**RestoraULTRA**<sup>®</sup>

Restora represents our unwavering dedication to rebalancing the environment by manufacturing low-carbon products. Our objective is to achieve the milestone of producing 30% of it by 2030, contributing to substantial absolute emissions reduction. This aligns with our overarching vision of supplying environmentally responsible metals to contribute to a greener world, and being Net Carbon Zero by 2050 or sooner.



# Our Economic Performance

At Vedanta Aluminium, we showcase our economic performance in the aluminium sector by meeting raw material needs for critical industries. We're committed to creating lasting positive impacts on the environment, communities, partners, and customers. We take great pride in driving socio-economic progress in India and globally through our products, operations, and extensive value chain. Employing innovative strategies, efficient operations, and unwavering quality focus, we consistently achieve noteworthy financial success. Our adept resource management, forward-looking approach, and dedication to sustainable growth position us as leaders, setting new standards for economic excellence. By responsibly harnessing natural resources, we transform them into sources of prosperity, benefiting countless individuals associated with us.

## TAX STRATEGY

Each year, the company releases a comprehensive tax transparency report that details our tax strategy. This

strategy is a pledge to operate in strict accordance with both the explicit and implicit aspects of tax laws and regulations within the countries where the company conducts its operations. It is our commitment to not transfer our value created to low tax jurisdictions and use secrecy jurisdictions for tax avoidance. To know more, please follow Vedanta Limited's Tax Transparency Report (Page 426).



**Tax Reporting:** Our tax reporting in the Aluminium Sector encompasses our activities in Jharsuguda and BALCO, where we engage in the production of aluminium products using alumina. Meanwhile, our Lanjigarh refinery specializes in the production of alumina derived from bauxite.

### Standalone:

Financial Reporting	FY 2022-23	FY 2023-24	Calculated Average Rate of 2-year period
Earnings before Tax (A)	19,616	27,010	
Reported Taxes (B)	2,371	-346	
Cumulative acceptable adjustments			
Effective Tax Rate (in %) (B/A)	12.09%	-1.28%	4.34%
Cash Taxes Paid (C)	2,685	3,028	
Cash Tax Rate (in %) (C/A)	13.69%	11.21%	12.25%

### Consolidated:

Financial Reporting	FY 2022-23	FY 2023-24	Calculated Average Rate of 2-year period
Earnings before Tax (A)	32,964	20,276	
Reported Taxes (B)	9,255	5,770	
Cumulative acceptable adjustments			
Effective Tax Rate (in %) (B/A)	28.08%	28.46%	28.22%
Cash Taxes Paid (C)	5,736	6,357	
Cash Tax Rate (in %) (C/A)	17.40%	31.35%	22.71%



## LONG-TERM GROWTH AND PROFITABILITY

Our operations stand as a testament to the effective utilization of capital assets, driving the sustainable conversion of natural resources into value-enhanced products while cultivating surplus revenue streams to fuel our future expansion. A substantial portion of the

wealth generated is dedicated to vital areas such as taxes, supplier relationships, employee compensation, community betterment, sustainability projects, and more, solidifying our commitment to holistic growth and responsible practices.

### Our Economic Impact: A Vital Contribution to India's GDP and Local Economies

In FY 2020-21, as per a study by the Institute of Competitiveness, BALCO made a notable impact on India's economy, contributing 0.05% to the national GDP. We also played a significant role in job creation, tax revenue generation, and foreign exchange earnings. Specifically, we contributed 3.5% to Chhattisgarh's GDP and accounted for 10% of its industrial output. Impressively, we supported a workforce of over 10,000 individuals, both directly and indirectly. Key financial figures included our annual contribution to India's GDP at 0.05%, Chhattisgarh's GDP at 3.5%, and our industrial output at 10%. Moreover, we generated annual tax revenue exceeding INR 1,000 crores and foreign exchange earnings surpassing INR 2,000 crores.

At Vedanta Aluminium, we played a significant role in India's economy, contributing 0.2% to the nation's GDP. With a workforce exceeding 25,000, we generated substantial annual tax revenue, surpassing INR 10,000 crores, and earned foreign exchange of over INR 20,000 crores each year. Our company also played a pivotal role in stimulating the local economy, supporting downstream industries, and promoting infrastructure development. Furthermore, our commitment to social development is evident through initiatives in education and healthcare. This impact extends regionally, particularly in Odisha and Chhattisgarh, where we contribute significantly. In Odisha, we represent 2.5% of the state's GDP and employ more than 10,000 people directly and indirectly. In Chhattisgarh, we contribute 1.5% to the state's GDP, with a similar employment impact.

The table provided illustrates the economic value generated and distributed by Vedanta Aluminium via its operations in the past two years.

Economic Value Generated and Distributed (in INR Mn)	FY 2022-23	FY 2021-22	FY 2020-21
<b>Economic value generated (Revenues)</b>	<b>5,59,540</b>	<b>5,36,767</b>	<b>3,10,926</b>
<b>Economic value distributed</b>	<b>5,01,233</b>	<b>3,96,428</b>	<b>2,63,113</b>
a) Operating Costs	4,41,470	3,30,117	2,03,388
b) Employee wages and benefits	9,186	8,310	9,846
c) Payment to providers of capital	49,089	50,954	49,140
d) Payment to government	530	6,280	82
e) Community investments (including donation)	957	767	657
<b>Economic value retained</b> (Calculated as economic value generated less economic value distributed)	<b>58,308</b>	<b>1,40,339</b>	<b>47,813</b>





# Strategic Overview

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## Management Approach

In today's ever-changing business landscape, the importance of effective corporate governance cannot be emphasized enough. At Vedanta Aluminium, corporate governance goes beyond simple rule adherence. It embraces an approach that champions accountability, fairness, transparency, and responsibility. Our focus on transparency and ethical business practices is designed to protect the well-being of our stakeholders. Our strategy is rooted in a methodical process that includes top-notch research and development, exploration, sustainable growth, and responsible use of diverse natural resources. The governance structure at Vedanta Aluminium not only safeguards shareholder interests but also aligns with the expectations of our employees, customers,

business associates, and the communities we operate in. By nurturing an atmosphere of trust and integrity, we strive to strike a balance between financial success and social duty, ensuring that our decisions resonate with our fundamental principles.

The operation and management of the Aluminium Sector are overseen by the Company's Board and its governance protocols. The Deputy CEO of the Sector, along with the CEOs of each Business Unit, handle its management. For more information, please visit our Group Sustainability Report



Scan to view





# Transforming for Good

Keeping a vision of the future at the forefront, Vedanta has embarked on the Transforming for Good journey. We are dedicated to moving beyond the past and setting benchmarks for the future. Embracing a comprehensive value creation process, we assess all resources,

relationships, material issues, and strategic focus areas in harmony with our mission and values. The ESG purpose, 'Transforming for Good,' along with the overarching theme of 'Transforming Together,' is intricately integrated into this process.

## 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



## OUR 10 POLICIES



Health, Safety & Environment



Energy & Carbon



Water Management



Biodiversity



Social



Human Rights



HIV/AIDS



Supplier & Contractor Sustainability Management



Indigenous Peoples/ Vulnerable Tribal Group (IP/VTG)



Supplier Due Diligence

## OUR 92 STANDARDS AND GUIDANCE NOTES

Covering all policy subject areas in line with ICMM and IFC Performance Standards



17

Safety standards



22

Technical standards



7

Tailings Dam Standards



4

Environment Performance standards



2

Social performance standards



14

Management standards



26

Guidance notes



### Sustainability Governance

The Company actively engages in advancing its sustainability agenda throughout the organisational hierarchy. Specifically, within the Aluminium Sector, we have established a clear structure to execute policies, standards, and programs aimed at achieving predefined sustainability objectives and targets. Both the Group Executive Committee (ExCo) and Board ESG Committee thoroughly assess business risks and performance related to Health, Safety, and Environment (HSE) and sustainability. These discussions occur at regular intervals, with periodic updates provided to the Board of Directors.

The Vedanta Sustainability Framework and the supporting committees responsible for overseeing and implementing sustainability initiatives are illustrated below:

- The ESG Board committee composed of two Independent Directors, one non-executive Director and Group CEO, exercises oversight over the Group's Sustainability function and ensures that material risks are addressed in a systematic and timely manner.

- Each individual Unit and Business maintains its own sustainability and/or HSE committees, convening regularly to review unit/business-level sustainability and HSE performance. Furthermore, HSE and sustainability-related business risks and performance are subject to examination at the Group's Executive Committee (ExCo) and Sustainability Committee, both of which furnish information to the Board of Directors.

### Board of Directors

Chaired by Independent Director Mr. UK Sinha, the ESG Board Committee, including members like Ms. Priya Agarwal (Non-executive Director), Sunil Duggal (Whole-time Director & CEO), and Mr. Akhilesh Joshi (Independent Director), among others, meets quarterly. Their role includes executing, endorsing, and supervising initiatives aligned with our 'Transforming for Good' agenda. We've also established 15 Communities of Practice led by experienced professionals within our organization, ensuring full sustainability integration into our business operations.







**Sustainability Committee:**

This committee assumes responsibility for overseeing the Company's management of sustainability-related matters. It actively monitors risks pertaining to Health, Safety, and Environment (HSE), ongoing sustainability initiatives, performance against targets, engagement with host communities and other pertinent issues.

**Executive Committee:**

As a crucial operational body, this committee is responsible for executing strategic plans as formulated by the Board. It allocates the necessary resources to designated authorities and closely monitors the operational and financial performance of the Company.

**Nomination Committee:**

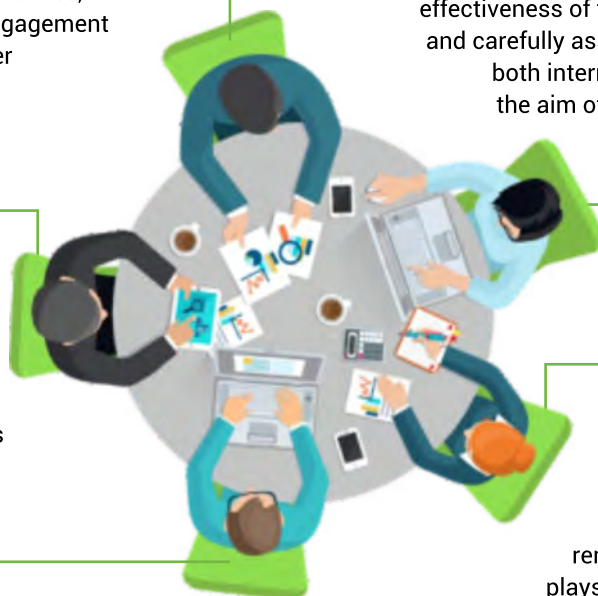
This committee undertakes a comprehensive review of the size and composition of the Board of Directors, Key Management Personnel, and Senior Management. Its objective is to ensure an appropriate balance of skills, experience, diversity, and independence within the Board and Senior Management.

**Audit Committee:**

The primary mandate of this committee revolves around the diligent oversight of the Company's financial reporting processes. It ensures the effectiveness of the risk management framework and carefully assesses the findings presented by both internal and external auditors, all with the aim of safeguarding the robustness of internal financial controls.

**Remuneration Committee:**

Tasked with a critical role, this committee conducts thorough reviews and makes recommendations to the Board concerning the executive remuneration policy. Additionally, it plays a pivotal role in determining the compensation packages for each of the Executive Directors. Periodically, the committee evaluates the annual variable pay structure, which includes performance-linked incentives based on both Company and individual



## Code of business conduct and ethics

At Vedanta Aluminium, our core values include integrity, accountability, and conscientious behaviour. Our Code of Business and Ethics encapsulates the essential principles that direct our actions, interactions, and choices across all aspects of our operations. Anchored in our commitment to transparency, equity, and sustainability, these codes and policies serve as guiding principles, leading us to the highest standards of conduct. They showcase our dedication to not only achieving excellence in business but also cultivating an environment where our team members, partners, stakeholders, and the communities we engage with can rely on the ethical framework that underlies our endeavours. We have a strong stance against fraud, bribery, and corruption, with our code not just conforming to legal mandates but exceeding them to set superior benchmarks for behaviour. Covering areas like insider trading, workplace parity, gender inclusivity, harassment prevention, and upholding workplace human rights, this code is universally applicable within our organisation, irrespective of operational location or hierarchy. Through this code, we unequivocally display our commitment to upholding the principles that define Vedanta Aluminium's character, propelling us towards a future of collective achievement and conscientious leadership.

We conduct continuous assessments of all our operations and commercial endeavours to identify any potential issues related to bribery and corruption. Additionally, we regularly conduct internal audits to confirm adherence to our Code of Business Conduct and Ethics.

Our implementation of the Code of Business Conduct and Ethics (CBCE) is reinforced by several supplementary policies and guidance documents, which include:



The Insider Trading Prohibition Policy



The Whistleblower Policy



Anti-trust Guidance Notes



The Supplier Code of Conduct



As per our Code of Business Conduct and Ethics Policy, the Company's funds or assets cannot be donated to any political party, organization, or individual unless such contribution is legally allowed and authorized by the Chairman or Board of Directors.

Our policy cautions employees to be aware that charitable donations could potentially be misused to conceal bribery or corruption. To prevent this, we strictly prohibit the use of charitable contributions as bribes. Employees may make personal charitable donations, but they must clarify that these contributions are made in their individual capacity and are not reimbursed by the Company. The Company may also sponsor sporting and cultural events, provided such sponsorships are not intended as bribes.

All these policies, guidelines, and codes are readily accessible on our official website and are incorporated into relevant contracts, ensuring convenient and transparent access to our policies in the public domain:

<https://vedantaaluminium.com/about-us/company-policies/>

We consistently assess operational activities for corruption, conducting regular internal audits to ensure compliance with our Code of Business Conduct and Ethics. Our Code strictly discourages corrupt actions, explicitly preventing undisclosed payments or benefits from gaining hidden advantages.

Our Whistle-blower Policy ensures a 'no-retaliation' approach and emphasizes confidentiality where employees' report concerns. We offer a hotline and registered email for stakeholders to report CBCE matters. Instances related to CBCE are investigated by an independent team, separate from operations, and presented to the Audit Committee.

Our Internal Audit updates the Audit Committee quarterly on fraud, alongside reports from the whistle-blower hotline.

Stakeholders can use the hotline or [sgl.whistleblower@vedanta.co.in](mailto:sgl.whistleblower@vedanta.co.in) for reporting potential Code violations.

All whistle-blower reports undergo thorough investigation by our independent Management Assurance Service (MAS), with results presented to the Audit Committee. Transparency and openness drive our reporting and operations. Regular awareness sessions ensure a strong understanding of our zero-tolerance stance on unethical behavior and reinforce governance protocols. High-risk roles within our organisation must acknowledge their understanding of these standards; failure to comply results in disciplinary measures. These roles also receive annual anti-corruption training, determined by factors like geography and government involvement.

To foster a culture of appreciation and adherence to our business ethics, we ensure that all our employees thoroughly comprehend the components of our Code of Business Conduct. This involves mandatory training for new hires and annual refresher sessions for existing employees. Furthermore, a dedicated e-learning program focused on our Code of Business Conduct and Ethics has been established.

### Our Performance

Particulars	FY 2022-23	FY 2021-22
Number of Open Complaints on 1 April 2021 to 2022	5	3
Number of Whistle Blower Cases opened	29	23
Number of Whistle Blower Cases upheld and found correct	9	8
Number of incidents in which employees were dismissed or disciplined for corruption	9	0
Number of incidents where contracts with business partners were terminated or not renewed due to violation related to corruption	1	0
Number of Public legal Whistle Blower cases brought against company, or employees	0	0
Number of Whistle Blower Cases closed	31	21
Open complaints on 31st March, 2022	3	5





## Awards and Recognitions



### Jharsuguda

**Winner**  
Chairman  
Sustainability Award Q1

**Platinum**  
Apex India  
OHS award

**Platinum**  
Exceed OHS Award

**Platinum**  
Fame Award

**Gold**  
Grow care India  
Award

**Gold**  
Kalinga Excellence Award

**Great Managers  
Award** at People  
Business

Recognized as one of  
the **India's best  
workplaces**  
in manufacturing  
(Top 50  
manufacturing  
industry)

**Grow care India  
Gold Award**  
for Environment  
Management



Scores **twin awards** for fly ash utilization by Mission Energy Foundation for  
excellence in fly ash utilization through circular economy avenues



### Lanjigarh

Site recognised as the **Winner  
of Kalinga Environment  
Excellence  
Award- 2021**  
in 5-Star category at 7th  
National Seminar on Sustainable  
Environment & Climate  
Change-2022

Site recognised as the  
**Winner of Annual  
Greentech  
Environment  
Award-2022** in the  
"Environment Protection"  
category

Special Recognition Award in  
the category of **"Best Solid  
Waste Management  
Practices"**  
at CII-SR Industrial Waste  
Management  
Competition- 2022

**Greentech  
Environment  
Award**

**CII Best  
Solid Waste  
Management  
Practices  
Award**

**Kalinga  
environment  
excellence  
Award**

**13th Exceed  
Occupational  
Health and Safety  
Platinum Award  
2022**

**FAME India  
Platinum  
Award**  
for Health &  
safety

**Golden Bird  
Platinum  
Award**  
for Health & safety

**Greentech  
safety  
Winner  
Award**





BALCO

### BALCO certified as Silver

through CII GreenCo Assessment

### Won the Frost and Sullivan & TERI Sustainability assessment award

for Best Sustainable Factory 2022

### CII Platinum winner

for Digitalisation in HSES

### Kalinga Safety Excellence Award Silver Category-2022

for Metal Division

### Winner of Council of Enviro Excellence (CEE)

Environmental Excellence Award 2022 for excellence in Environmental Sustainability in Fly Ash Utilization/ Disposal

### Winner under Environment Protection Category

by GREENTECH Foundation

### Energy And Environment Foundation Global Road Safety Award 2023

in Gold Category

### Gold award in Sustainability category

in OHSSAI 7th Annual HSE & Sustainability

### Utkal Kalinga award

in the field of Environment excellence has been received in 5-star category

### Won "Gold Award" in Grow Care Environment Award 2022

for outstanding achievements in Environment Protection



# Risk Management

As a global metals and mining leader, we navigate risks like price fluctuations, regulations, sustainability, and stakeholder expectations. Our robust risk management and governance align our Aluminium Sector with our vision, effectively managing sector-specific risks, fostering trust, enabling proactive responses, and promoting responsible, sustainable growth.

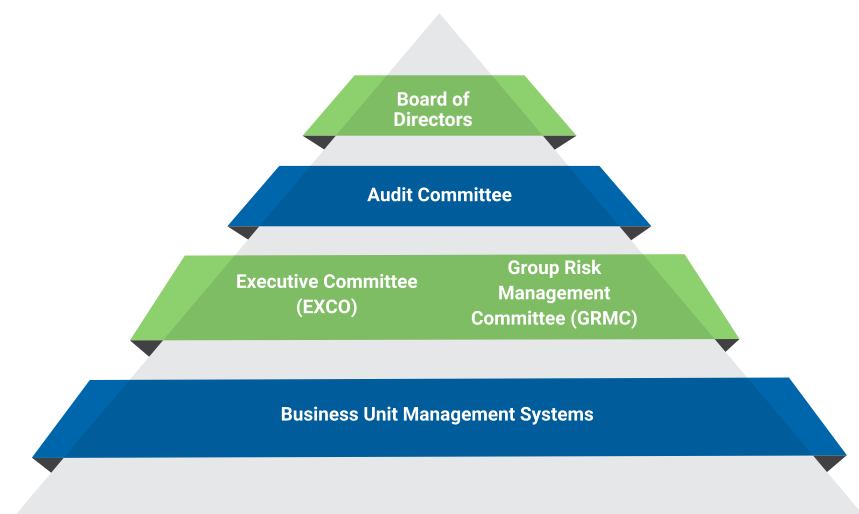
## RISK GOVERNANCE FRAMEWORK

Our risk governance framework is designed to enhance the resilience of our operational portfolio throughout the entire value chain, safeguarding against potential risks. Within this framework, our Business Units undergo comprehensive assessments of both current and emerging risks, facilitated by their respective risk management teams.

- The teams are chaired by the CEOs of each business unit and attended by CXOs, including the Risk Officer, and play a vital role in risk identification and mitigation.
- To ensure proactive risk management across the organisation, the Risk Officer at the Business Units, Aluminium Sector, and Company level serves as a key communicator, sensitizing senior management to potential business risks and advising on mitigation or adaptive strategies.

- At the Company Board level, the presence of six Non-Executive Directors (NEDs) with expertise in Enterprise Risk Management reinforces our commitment to robust risk oversight. Regular training sessions on risk management principles and best practices are conducted for NEDs and all organisational members. The Company's HR department diligently monitors and evaluates employees based on risk management criteria.

It's worth noting that the Risk Management function operates independently of our business verticals, ensuring impartiality and objectivity. Mr. Anup Agarwal who is the Chief Financial Officer (CFO) of Vedanta Aluminium, oversees the risk management in the aluminium sector, and at the company level, Mr. Ajay Goel, the Chief Financial Officer (CFO) of Vedanta Limited has oversight. Mr. Anup Agarwal reports to Mr. Rahul Sharma, Deputy CEO of Vedanta Aluminium. Mr. Ajay Goel reports to Mr. Sunil Duggal, CEO of Vedanta Limited. The Audit Committee, led by an Independent Director, further strengthens our risk management endeavours by overseeing the implementation of robust risk management systems aimed at mitigating business risks, along with conducting regular reviews of MAS's scope of work, authority, and resource allocation. At the operational level, the responsibility of oversight and evaluation of risk management performance is helmed by Mr. Dilip Golani who is the President of MAS.



Comprehensive enterprise risk and control management are seamlessly integrated into multiple dimensions of our business processes, encompassing crucial elements such as annual goal establishment and performance evaluation. Our senior management's objectives and Key Performance Indicators (KPIs) encompass risk management measures, thoughtfully assigning specific weights to ensure the robust execution of vital risk controls. The leadership teams hold responsibility for overseeing the risk management framework, with ESG serving as a mandatory Key Performance Indicator (KPI) for senior leaders. This requirement aims to cultivate a culture emphasizing sustainability and risk management. We employ a formal performance management system based on a scorecard approach, where a minimum score of 70% in the VSAP Audit acts as the threshold. The results from the VSAP Audit directly impact the overall performance assessment of the entire full-time employee workforce, with sustainability KPIs accounting for 15% of the evaluation. For executive committee members, their components comprise a maximum performance achieved, including 31% fixed pay, 38% annual bonus, and 31% Long-Term Incentive Plan, incorporating risk management elements. Additionally, we actively foster the engagement of line managers in risk management activities, assuring the full integration of our well-established risk management principles into all aspects of our business operations and decision-making processes. The line managers have been provided with a clear understanding of the company's values and are strongly encouraged to actively engage in risk management initiatives. Their commitment and involvement are crucial for applying established risk management principles across all decision-making processes within the organization, and any deviation from these principles is strictly prohibited. It's important to note that both the ESOP (Employee Stock Ownership Plan) schemes of Vedanta Resources Limited and Vedanta Limited are structured as tenure and performance-based share schemes. The training for all the organisational members on risk management principles is also done on regular basis. Our Human Resources department diligently monitors and conducts periodic evaluations of employees using risk management criteria as a basis for assessment. The organization recognizes and values employee risk reporting, which is factored into the annual assessment process. There is a well-established system in position to actively engage staff in identifying and reporting potential risks throughout the organization.

Furthermore, our approach to financial incentives, compensation structures, and performance evaluations is meticulously crafted to encompass risk management metrics. This strategic framework serves as a positive

reinforcement mechanism, cultivating an organisational culture steeped in effective risk management. Through our programs, we create an environment where employees can voice their concerns without the fear of facing any negative consequences. We have established an ongoing feedback system that involves workshops and dedicated risk champions. This system serves as a platform for workers to provide input on risk management strategies and the methods employed to enhance risk awareness. Incorporating risk management standards into the product development process is a comprehensive approach applied at each stage. This involves a meticulous endeavour to identify both evident and concealed risks, assess their potential impact on project schedules, expenses, workforce, and resource requirements, and devise proactive and remedial measures to address these risks.

#### Executive Compensation linked to ESG

- To cultivate a culture that prioritizes safety and sustainability, ESG has become a compulsory Key Performance Indicator (KPI) for all employees. Our KPIs are structured within a Scorecard framework, emphasizing the use of objective and transparent criteria that directly influence annual performance ratings and fixed compensation.
- To trigger bonus payouts, a minimum score of 70% is needed in the VSAP audit. Our annual bonus is influenced by Assurance Models, which encompass compliance, new projects, process safety, and other safety-focused activities like work at height and confined space operations. Within our Safety Sustainability scorecard, the VSAP component holds a 15% weight, and the VSAP audits consist of a comprehensive set of 70 guidance factors.
- We incorporate fatalities into our annual bonus structure, where they act as a detrimental factor affecting overall performance. A single fatality results in a 10% reduction, and in the unfortunate event of multiple fatalities, there is a potential 25% reduction in the overall bonus.
- We also include ESG considerations in our long-term strategic Key Performance Indicators (KPIs), which lead to long-term incentive payouts. The 'long-term strategic sustainability' objectives carry a weightage of one-third in this context.
- In our Long-Term Incentive Plans (LTIP), our ESG framework encompasses the integration of carbon footprint and fatalities. Carbon footprint accounts for 15% of the evaluation of our business operations (representing 40% of the total scheme weight), while an additional 10% payout boost is applied in the absence of any fatalities during the vesting period.



## Business Risks and Risk Management at Vedanta

### Key Risk Area: Raw Material and Commodity Security

Mitigation Measures	Strategic Priorities and Execution
Measures were implemented in response to a decline in coal reserves within the power sector. These steps were initiated following restrictions imposed by the Ministry of Coal (MOC) and Ministry of Railways (MOR) on the allocation of railway rakes to non-power sector entities. The objective was to address concerns about ensuring an adequate coal supply for power generation. We have operationalised Jamkhani Coal block in FY 2023 & intend to operationalise Kurloi (A) North and Radhikapur (West) in the next fiscal year.	<p>To proactively address supply chain risks associated with potential non-allocation of railway rakes to the non-power sector, we have bolstered the truck handling capacity at our Lanjigarh plant. One of the Core business priorities is to operationalise Sijimali bauxite mine, Lanjigarh expansion to 5 MTPA.</p> <p>We also look forward to continuing our participation in linkage coal auctions and secure coal at competitive rates. These acquisitions, along with 15 million tonnes of long-term linkage will ensure 100% coal security for Aluminium Business.</p>

### Key Risk Area: Bauxite Residue Disposal Area Risk

Mitigation Measures	Strategic Priorities and Execution
We've created a fresh Residue Management Pond (RMP) covering an area of 118 acres or 4.76 lakh square meters. This newly developed RMP incorporates a wick drain system, which has been implemented in two distinct phases, referred to as phase-1 and phase-2, following the recommendations from third party.	The wick drain project's second phase (70,000 sqm) is progressing. We've finished Phase 1 & 2 of the R&R Colony, relocating 132 Rengopali families in June 2022. Further construction is ongoing, including 21 houses and amenities.

### Key Risk Area: Fly Ash Management

Mitigation Measures	Strategic Priorities and Execution
We supply ash to NHAI and cement plants, as mentioned earlier. Our priority for legacy ash and the GBD Plan is to optimize usage through eco-friendly partnerships, aiming to minimise our environmental impact and enhance ash applications, including backfilling and supporting green initiatives.	For years, we have consistently exceeded 100% utilization of our annual ash production. This includes a substantial 1.6 million-tonne backfilling agreement with SECL Manikpur mines. We're proud to be trusted suppliers to NHAI and CGPWD, with a firm commitment to utilize 1.4 million tonnes of ash. We've also formed partnerships with nearby cement plants and collaborate with 42 brick manufacturers, ensuring a constant ash supply for their production units.





**Key Risk Area: Risk of infrastructure**

Mitigation Measures	Strategic Priorities and Execution
<p><b>LANJIGARH:</b> The railway infrastructure requires enhancement to efficiently handle the current capacity of rail traffic.</p> <p><b>BALCO:</b></p> <ol style="list-style-type: none"> <li>1. Improving infrastructure in our existing facilities, both internally and externally.</li> <li>2. Developing essential infrastructure, including logistics and rail sidings, to facilitate our planned capacity expansion.</li> <li>3. Overcoming regulatory clearance challenges.</li> <li>4. Enhancing our coal unloading systems to eliminate demurrages and implementing mechanized handling of alumina.</li> </ol>	<p><b>LANJIGARH:</b> We constructed a Y-shaped railway connection for our raw materials, with FSR approval and ongoing engineering efforts. Simultaneously, we are in the process of doubling the railway line from Mid Station to our plant, with FSR approval and ongoing engineering work.</p> <p><b>BALCO:</b></p> <ol style="list-style-type: none"> <li>1. We are in the process of acquiring land to connect BALCO with Korba Station for the purpose of doubling the railway line.</li> <li>2. We have successfully implemented single rake placement for Alumina, FG Handling, Ash loading platform, and the Mechanized unloading of CP coke.</li> <li>3. Furthermore, we are planning to introduce a Wagon Tippler for Coal handling, the Limestone System, and the FGD package.</li> </ol>

For more information on our Sustainability Risks and how we mitigate them, please refer to:

<https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Transforming-Together-for-a-Sustainable-Future.pdf>



At the asset level, we assess risks related to our current operations as well as potential future business risks. In addition to the top business risks identified in the BU and Sector risk register, we have recognized two critical

emerging risks – CBAM and climate change transition costs. These emerging risks have the potential to affect our business in the medium to long term if not effectively managed.

Emerging Risk	Category	Description	Potential Impact	Mitigating Actions
Carbon Border Adjustment Mechanism (CBAM)	Economic	CBAM is European Union's new carbon border tax, proposed as part of the EU Green Deal on carbon-intensive products imported by the EU, including both direct and indirect emissions. From October 2023 to 2025 end, there is a transitional period for the importers to report the embedded emissions from their imports, no financial implications will be there. Importers would have to pay the carbon charges from January 2026. It is a measure against the risk of carbon leakage. As we supply our product to the Europe countries, the indirect onus will also be on us i.e., the suppliers to the EU importers. This carries the potential to adapt our strategy in terms of the market changes, cost of production that it might bring with it.	The cost of production for the importers will increase leading to price and market negotiations for us. This will not only increase our competition outside India, but within Indian aluminium companies as well which are supplying to EU. These market negotiations might start in the transitional period of CBAM (reporting phase). Technology upgradation for lower carbon emissions of products exported will also be required with a switch to more carbon efficient suppliers in the medium and long term, an inclusion of such a parameter while selecting our suppliers, might also be required.	We're committed to integrating climate risks and opportunities into our business risk management. Our goal is to achieve Net Zero Carbon status by 2050, with specific scope-1 and scope-2 GHG emissions reduction targets for our aluminium business by 2025 and 2030. We're also increasing renewable energy to 30% by 2030, procuring 1500 MW through PPAs and direct utilization. With the increasing demand of green aluminium, our product will stay competitive in the long term. Our plan for FY 2024 is to support in policy level representation/ policy advocacy through representation to Indian government, developing framework/ SOP for monitoring, measuring and reporting embedded emissions in terms of EU CBAM format and building capacity development. focusing on phase wise decarbonisation roadmap in short, medium and long term.





Emerging Risk	Category	Description	Potential Impact	Mitigating Actions
Climate Change Transition Costs	Environmental	To address climate change transition costs, we need to allocate resources towards sustainable practices and adapt to dynamic environmental regulations to mitigate potential financial and operational implications.	We address climate change transition costs by investing in sustainability, complying with regulations, and fostering innovation. Additionally, we engage stakeholders, manage our supply chain, and integrate climate considerations into our long-term planning and employee engagement efforts to mitigate risks and adapt to evolving environmental requirements. Regarding our sites, some face high cyclone and drought risks, which may lead to water resource conflicts. We must prioritize adaptation measures for cyclones and water scarcity. Additionally, we plan to conduct annual staff training for energy and water conservation, costing 12 lakh rupees yearly. This is a short-term initiative (0-5 years).	<p>We're committed to achieving Net Zero Carbon emissions by 2050 and a 28% reduction in GHG intensity by 2030. Introducing low-carbon aluminium, Restora, and Restora Ultra, we've embedded carbon pricing in investments to promote clean tech and renewables. Additionally, we're enhancing operational resilience and addressing climate risks in our projects and communities.</p> <p>By introducing inventive and eco-conscious recycling methods, we actively foster the concept of material circularity while mitigating our environmental footprint. Our dedication to responsible resource stewardship actively enhances the efficiency and sustainability of the aluminium recycling sector, ensuring a more promising and eco-friendly tomorrow. In our upcoming plans, we're focusing on creating an Aluminium Park to promote resource circularity.</p>



## Supply Chain Management

In recent years, global value chains have grown more intricate due to widespread corporate expansion in pursuit of growth. According to the World Trade Organization, global intermediate goods (IGs) exports fell by 10% year-on-year in Q4 2022 to \$2.3 trillion. This decline can be attributed to disruptions in global supply chains during the year's final months, driven by factors such as geopolitical tensions, commodity shortages, high energy costs, and decreased consumer demand. As a leading global aluminium producer, Vedanta Aluminium plays a crucial role in this dynamic landscape. Ensuring ethical and sustainable practices among our suppliers is of utmost importance, given the scale and reach of our global supply chain. Throughout 2022, we remained committed to implementing various strategies to mitigate supply chain risks, underscoring our dedication to responsible sourcing and sustainability.

### Supply Chain Risk Exposure and Management Approach

Complex supply chains introduce sustainability-related business risks. At Vedanta Aluminium, our Supplier Code of Conduct outlines the fundamental requirements we expect our suppliers to uphold when engaging with us, reflecting our commitment to internationally recognised sustainability frameworks and ESG standards, including core conventions of the International Labour Organization and the United Nations' Universal Declaration of Human Rights.

We have aligned our supply chain policy with the model policy outlined in the OECD (Organisation for Economic Co-operation and Development) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. This policy has received approval from our leadership, enabling us to collaborate with our business partners throughout the supply chain.

### Our commitment to responsible sourcing and compliance

Under Vedanta Ltd/BALCO's Responsible Supply Chain Policy, we pledge to source minerals responsibly, and have aligned our policy with the OECD Due Diligence Guidance's 5-step framework. We communicate this commitment to our suppliers both through contractual agreements and public channels. To reinforce these endeavours, we allocate internal resources to ensure accountability and competence in due diligence. Our employees receive training tailored to their roles, and we maintain robust internal reporting and recording mechanisms that capture KYC information, supplier due diligence practices, and transparency efforts. Furthermore, we actively engage with suppliers to promote responsible sourcing, communicate our policy, monitor conformance, and facilitate capacity building. We provide an accessible grievance mechanism through a dedicated portal, and our due diligence system undergoes regular internal evaluations to uphold its effectiveness.

We fully adhere to LME's sourcing requirements for LME listed brands, meticulously following Track C guidelines and submission of LME's Red Flag Assessment. Our commitment extends to aligning with the LME's policy on responsible sourcing, which is in harmony with the comprehensive 5-step framework outlined in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. To underscore our unwavering dedication to responsible sourcing, we mandate that the Bauxite & Alumina Commercial team rigorously conduct due diligence activities.





## Our Supply Chain Assessment



### Risk Assessment:

Our Technical Standard for Supplier and Contractor Management outlines the core components of our Supplier Risk Management process, offering a uniform method to manage supplier-related risks and their impact on our organisation.



### Desktop Evaluation:

The initial evaluation of suppliers includes a thorough desktop review to identify sustainability concerns linked to the supplier. These concerns may be of immediate interest to critical external stakeholders, such as regulatory bodies, NGOs, and wider industry developments.



### On-site Inspection:

We annually perform on-site assessments conducted by third parties to verify the compliance of our primary suppliers with relevant social and environmental regulations in their respective regions, guided by risk assessments.

We have implemented comprehensive registration questionnaires that cover various aspects such as supplier category, medicals, ISO certifications (including ISO 9001, ISO 14001, ISO 45001, etc.), and business ethics. These questionnaires are designed to assess adherence to codes, policies, and other relevant criteria.

## Our Supplier Screening Criteria



### Environment

- Environmental objectives and targets
- Statutory environmental requirements
- Energy consumption and GHG emission management
- Water management
- Waste management and minimising packaging material
- Proper handling of hazardous chemicals and wastes
- Air emissions and pollution control equipment



### Social

- Employment practices
- Labour management practices
- Occupation health and safety practices
- Training and education practices
- Diversity and equal opportunity
- Non-discriminatory practices
- Freedom of association and collective bargaining
- Child labour
- Forced or compulsory labour
- Security practices
- Rights of indigenous people
- Human rights criteria



### Governance

- ISO 9001, ISO 14001, ISO 45001, SA8000 and other certifications
- Ethics policy & code of conduct practices
- Corruption and bribery
- Turnover
- Raw material sourcing
- Previous clients
- Risk management
- Incident management
- HSE policies, objectives and trainings
- Leadership commitment to sustainability culture
- Sub-business partner management process
- Skilled and unskilled labour

In the assessment of risks based on location, we consider country-specific factors, including the potential for corruption and bribery, as well as the adherence to ethics policies and codes of conduct. Additionally, when evaluating risks within specific sectors, we consider criteria related to human rights compliance and the effectiveness of air emissions and pollution control equipment.

The results of our supplier screening and assessment conducted during FY 2022-23 were as follows

## Supplier Screening

<b>Total number of Tier-1 suppliers</b>  <b>1,326</b>	<b>Total number of significant suppliers in Tier-1</b>  <b>504</b>	<b>Percentage of total spend on significant suppliers in Tier-1</b>  <b>60%</b>	<b>Total number of significant suppliers in non Tier-1</b>  <b>0</b>
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## Supplier Assessment

<b>Total number of suppliers assessed via desk assessments/on-site assessments</b>  <b>150</b>	<b>Percentage of significant suppliers assessed</b>  <b>24%</b>	<b>Number of suppliers assessed with substantial actual/potential negative impacts</b>  <b>1</b>	<b>Percentage of suppliers with substantial actual/potential negative impacts with agreed corrective action/improvement plan</b>  <b>1.15%</b>
<b>Number of suppliers with substantial actual/potential negative impacts that were terminated</b>  <b>0</b>	<b>Total number of suppliers supported in corrective action plan implementation</b>  <b>1</b>	<b>Percentage of suppliers assessed with substantial actual/potential negative impacts supported in corrective action plan implementation</b>  <b>1.15%</b>	<b>Total number of suppliers in capacity building programs</b>  <b>452</b>
<b>Percentage of significant suppliers in capacity building programs</b>  <b>24%</b>			

For additional details regarding our Supply Chain Management, please refer to our Group Sustainability Report.



Scan to view

# Stakeholder Engagement

Stakeholder engagement is crucial for Vedanta Aluminium. It helps us build trust, find opportunities, and nurture strong relationships. We use a systematic approach to manage important issues and have different strategies for engaging with stakeholders who have a significant stake in our business.



## Management Approach

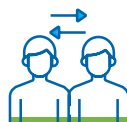
Establishing robust and effective relationships empowers us to contribute to and exchange value with our stakeholders. Engaging meaningfully with individuals and entities invested in our business allows us to discover fresh opportunities to enhance value for our stakeholders. This approach also aids us in the critical tasks of recognising and mitigating risks.



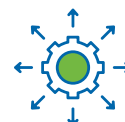
Stakeholder  
Identification



Stakeholder Mapping  
and Analysis



Stakeholder  
Engagement Plan



Execution  
of Plan

Stakeholder	Nature of Engagement	Significance to the Business
Suppliers/ Customers	<ul style="list-style-type: none"> <li>• Meetings with suppliers and vendors</li> <li>• Surveys to gauge customer satisfaction</li> <li>• Feedback channels and addressing grievances</li> </ul>	<ul style="list-style-type: none"> <li>• Directly linked to business and expansion</li> <li>• Supportive in advancing product development</li> <li>• Essential for shaping regulations and standards, fostering market growth, and improving operational processes</li> </ul>
Employees	<ul style="list-style-type: none"> <li>• Diverse workshops, forums, gatherings, and feedback sessions</li> <li>• Performance evaluation sessions</li> <li>• Numerous plant-level committees, including: mentorship program, event management committee, welfare committee, women's clubs, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Critical components for achieving operational efficiency</li> <li>• Achieve corporate objectives and milestones</li> <li>• Foundational elements of the organisation</li> </ul>
Civil Society/ Business Organisations	<ul style="list-style-type: none"> <li>• Collaborative partnerships and liaisons</li> <li>• Professional connections with organisations for specific projects</li> <li>• Involvement with local civil society groups and non-governmental organisations (NGOs)</li> </ul>	<ul style="list-style-type: none"> <li>• Offer a discerning perspective on the business's operations</li> <li>• Exchange and promote best practices</li> <li>• Advocate for and contribute to the growth of the business</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Meetings with community groups</li> <li>• Local governing bodies (Panchayats)</li> <li>• Public consultations</li> <li>• Channels for addressing grievances</li> <li>• Cultural gatherings and events</li> </ul>	<ul style="list-style-type: none"> <li>• Essential for the business's licence to function</li> <li>• Improving social welfare and quality of life</li> </ul>
Government & Regulators	<ul style="list-style-type: none"> <li>• Involvement in government consultation initiatives</li> <li>• Interactions with government entities at the national, state, and regional levels, directly related to business operations</li> </ul>	<ul style="list-style-type: none"> <li>• Establish the regulatory framework including taxation, licensing, infrastructure, and economic conditions conducive to growth, in which the business operates</li> <li>• Partners in fostering development</li> </ul>
Shareholders	<ul style="list-style-type: none"> <li>• Annual general meetings</li> <li>• Investor meetings</li> <li>• Quarterly result calls</li> <li>• Conferences</li> </ul>	<ul style="list-style-type: none"> <li>• Consistent disclosure of economic, social, and environmental performance</li> </ul>



## Materiality Assessment

In FY 2023, we undertook a thorough materiality assessment to gain insights into the impact of stakeholders on the company and their expectations, utilizing the GRI framework. We conduct materiality assessments once every three years to maintain robust stakeholder engagement. As part of our commitment to this, we aim to conduct a double materiality assessment in the coming years.

These assessments primarily aim to identify significant environmental, social, and governance-related concerns. We categorized stakeholders into seven groups based

on their level of impact and influence on the company. Moreover, our ongoing dialogues with stakeholders help us gain insights into their viewpoints and enable us to proactively address evolving market dynamics, thus ensuring we stay ahead of potential risks.

We have also employed a consultative process to inform both our management and stakeholders about all the material environmental, social, and governance issues. We have then organised these material issues in order of priority for the company and for each stakeholder group.



The steps preceding the final reporting of our material topics are as follows:

### Identification



We pinpointed critical subjects that exerted significant influence on our operations and held interest for our stakeholders. These subjects encompassed both positive aspects, such as opportunities, and negative aspects, such as risks. Our selection criteria were guided by industry-specific standards, including SASB, MSCI, S&P Global, and ICM. We also reviewed material sustainability topics by our peer companies and ultimately, we refined and ranked 26 material topics for Vedanta Aluminium.

### Stakeholder Input Gathering



Following the shortlisting of the 26 material topics, we consulted a diverse range of internal and external stakeholders, from whom we received both positive and negative feedback.

### Risk and Opportunity Assessment



We conducted an analysis to gauge the risk level linked to each topic, facilitating the development of effective mitigation strategies. This included the assessment of emerging risks, megatrends, and regulatory factors concerning their significant influence on our business model, incorporating aspects like revenue growth, profit margins, and capital requirements. These evaluations were guided by Vedanta's risk tolerance, as outlined in our Enterprise Risk Management (ERM) framework.

### Prioritisation



After identifying potential material topics, we ranked them in order of importance, considering their impact on both the organisation and our stakeholders. This evaluation often considered economic, environmental, and social impacts associated with these topics.

### Validation



We actively engaged with stakeholders to validate the materiality of the identified topics. This process ensured that our reporting aligned with stakeholder concerns and met their expectations.

### Preparation of the Materiality Matrix

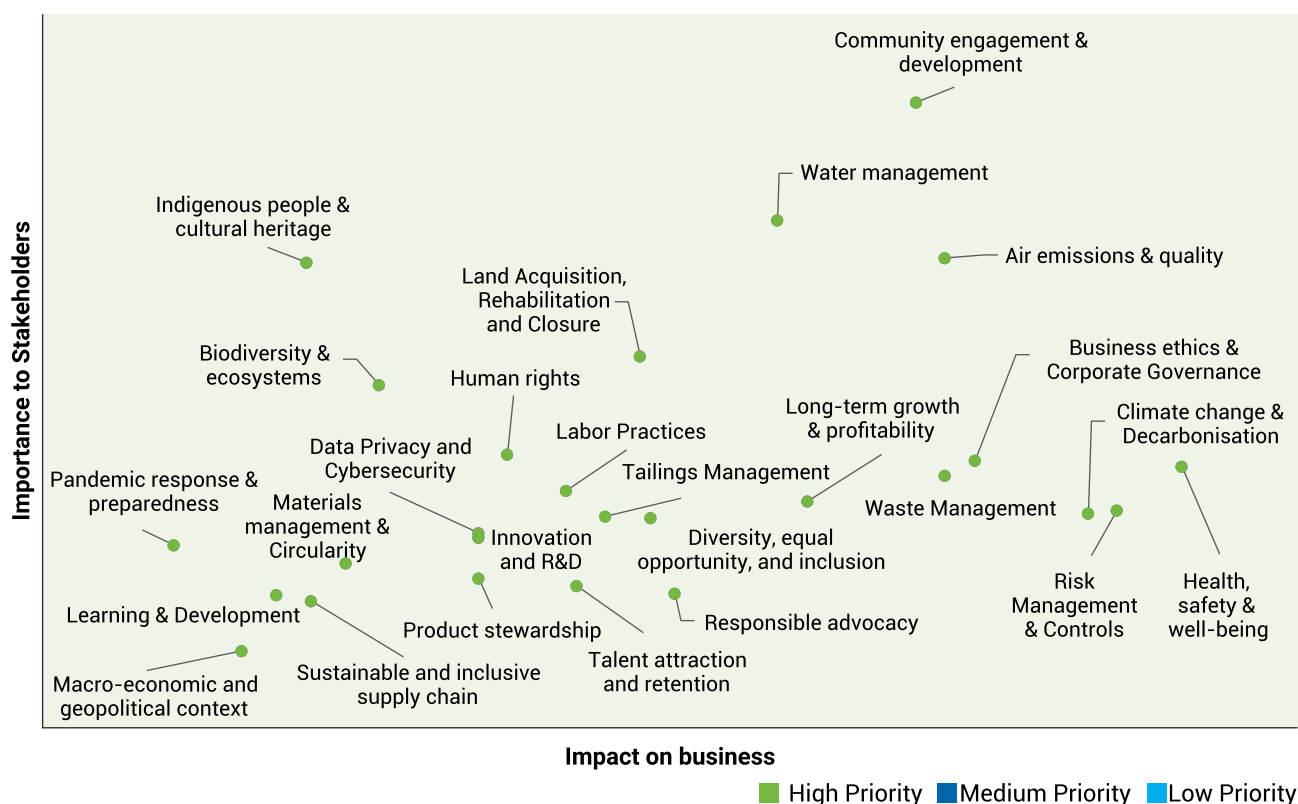


Subsequently, we mapped all stakeholder responses into a materiality matrix. This matrix employed two axes to assess material issues, with the X-axis representing the impact on our business and the Y-axis representing the impact on our stakeholders. On the X-axis, we projected the impact on our business and assigned varying weightings based on their relative influence. This process aided in determining the high-priority material issues and their effect on Vedanta's operations. On the Y-axis, we reviewed business prioritisation, taking into account the nine objectives integrated into Vedanta's strategy, ESG-related risks within Vedanta's Enterprise Risk Management (ERM) framework, and the extent to which these material topics spanned the value chain.

Our materiality assessment results have been signed off by both the Board of Directors and Senior Management.



The material issues were then classified as high, medium, or low priority based on their impact, each requiring a distinct management approach. This classification enables us to allocate focused attention and implement tailored strategies to effectively address the identified material issues.



Sustainability topics considered for materiality assessment:

High Priority	Medium Priority	Low Priority
<ol style="list-style-type: none"> <li>Climate change and decarbonisation</li> <li>Air emissions and quality</li> <li>Water management</li> <li>Waste management</li> <li>Community engagement &amp; development</li> <li>Health, safety, and well-being</li> <li>Business ethics &amp; corporate governance</li> <li>Risk management and controls</li> <li>Long term growth and profitability</li> </ol>	<ol style="list-style-type: none"> <li>Tailings management</li> <li>Biodiversity and ecosystems</li> <li>Human rights</li> <li>Labor practices</li> <li>Talent attraction and retention</li> <li>Land acquisition, rehabilitation, and closure</li> <li>Indigenous people and cultural heritage</li> <li>Diversity, equal opportunity, and inclusion</li> <li>Responsible advocacy</li> <li>Data privacy and cybersecurity</li> <li>Innovation and R&amp;D</li> <li>Product stewardship</li> <li>Materials management and circularity</li> <li>Sustainable and inclusive supply chain</li> <li>Learning &amp; development</li> </ol>	<ol style="list-style-type: none"> <li>Pandemic response &amp; preparedness</li> <li>Macro-economic &amp; geopolitical context</li> </ol>

Among the 26 topics mentioned above, 9 were recognised as the most material for Vedanta in the Environmental, Social, and Governance categories.





## Material Issue

# Climate Change and Decarbonisation

## Business Case

The transition to a lower-carbon economy requires significant changes in policies, regulations, technologies, and markets to address climate change. These changes pose financial and reputational risks for our company, including stricter regulations and investor pressure to reduce greenhouse gas emissions, which can increase fossil fuel costs, result in emission penalties, and raise monitoring and reporting expenses.

A prominent example is the Carbon Border Adjustment Mechanism (CBAM), a regulatory tool aimed at preventing carbon leakage. CBAM applies to our operations and assesses carbon emissions linked to aluminium production, potentially leading to import charges based on emissions. This has substantial implications for international trade and the competitiveness of aluminium businesses in CBAM implementing markets (EU jurisdiction) markets.



## Impact (Cost/Risk/Revenue)

### Business Strategy

- Improvement in energy efficiency by implementing own pot controller technology, achieving highest ever graphitization in FY 2023, installation of RUC cathode pots etc.
- Used biomass co-firing 5141 tonnes of biomass briquettes instead of coal for thermal power generation, with the potential to reduce 4.3 lakh tonnes of CO<sub>2</sub> equivalent emissions annually, aligning with our Net Zero Carbon goal by 2050.
- Successful application of biodiesel in our vehicles to reduce our carbon footprint and support farmers while working towards zero carbon emissions by 2050.
- 23 forklifts deployed in place of diesel propelled forklifts.
- Revitalized+40 community ponds, aligning with our goal to achieve water positivity by 2030.
- Strengthened our supply chain with a new Bogey Tank for Alumina Powder (BTAP) rake, reducing costs and Turn Around Time (TAT) through bulk materialization via railways.
- Renewable energy – 4% mix in FY 2023 with short-, medium- and long-term targets in place.
- Set an Internal Carbon Price for the sector and incorporate carbon pricing into project return on investment assessments.







### Material Issue

## Health, Safety and Well-Being

### Business Case

Safety is a top priority at Vedanta, especially in our aluminium operations, as hazardous conditions might lead to employee absences, reduced productivity, and reputation risks. The well-being of our entire workforce, encompassing both physical and mental health, holds paramount importance as it directly affects our company's operations. Physical hazards within our work environment encompass factors like noise, heat, humidity, stress, vibration, ergonomics, electromagnetic fields (EMFs), and exposure to ultraviolet radiation. Notably, smelting operations face challenges related to heat stress due to elevated process-generated temperatures. In addition to these, chemical hazards include risks associated with alumina and bauxite dust, caustic soda, and diesel exhaust fumes. Given the pervasive presence of strong alkalis, mainly sodium hydroxide (NaOH),

throughout the refining process, concerns persist regarding chemical splashes and spills that could lead to severe burns of the skin and eyes. Furthermore, respiratory disorders are prevalent among smelter workers. Consequently, it is of utmost importance to uphold rigorous safety measures, provide secure and hygienic working conditions across all workplaces, and prevent any occurrences of injuries or fatalities. In FY 2023, we experienced 1 fatal incident

Prioritising health and safety builds trust with employees and stakeholders, reinforcing our reputation as a responsible and caring employer. This strengthens our position in the industry and helps us attract and retain talented professionals who value their well-being.



### Impact (Cost/Risk/Revenue)

### Business Strategy

- Focusing on reducing "red zone" areas with elevated exposure levels across our operations. This objective is to monitor individual exposure to airborne contaminants, including dust, and to address issues related to noise, vibration, and heat stress.
- Implemented exposure control measures guided by the hierarchy of controls, placing a primary emphasis on engineering solutions and, when required, administrative controls.
- Project Umang is a step at enhancing Employee Wellness at Vedanta Aluminium. In collaboration with MantraCare, we launched a customized wellness program covering physical, mental, and emotional health. Phased rollout included need assessments, workshops, and resources for well-being. Critical Risk Verification started at BU level as per Critical risk management program driven through group HSES.
- We are committed to promoting behavioural safety awareness at our operations through regular workforce training in safe practices.
- Our senior leadership actively engages with employees and business partners through our Visible Felt Leadership program. We have partnered with DuPont Sustainable Solutions (DSS) to implement transformation programs that include hazard and risk management review, incident investigation, CAPA (Corrective and Preventive Actions) review, and training and capability development.
- We have also initiated a project to reduce red zone areas and invested in advanced processes to minimize exposure levels, such as the installation of pollution control equipment and proper management of hazardous materials and waste.
- Additionally, we have established Wellness Centers as part of our 'VCare' initiative, which promotes the physical and mental well-being of our workforce through activities like yoga and provides health-related consultations.



## Material Issue

# Community Engagement and Development

## Business Case

At Vedanta, we recognise that engaging with local communities presents numerous potential risks. These risks include the potential for encountering opposition, confronting legal challenges, encountering delays in securing permits, experiencing damage to our reputation, addressing

operational disruptions, facing unforeseen costs, undergoing regulatory scrutiny, and dealing with threats to our long-term sustainability. To effectively address these challenges, we prioritise responsible and transparent community engagement practices.



## Impact (Cost/Risk/Revenue)









### Business Strategy

- Prioritising an inclusive socio-economic growth strategy with a "rights-based approach."
- Maintaining transparency by regularly communicating our community development program results to stakeholders.
- a grievance redressal mechanism for local communities and stakeholders to provide feedback on our processes and programs.
- Projects aiming at women empowerment, farmers and youth upskilling and employment, education, nutrition, healthcare, welfare, infrastructure are being carried out at all three units
- Through need assessment exercise from third parties, we plan and implement our CSR projects by prioritizing and aligning with business goals.



## Change in Material Topics

### FY 2021-22

 <p><b>Energy and Climate Change</b></p>	 <p><b>Solid Waste Management</b></p>	 <p><b>Water Management</b></p>	 <p><b>Biodiversity</b></p>	
 <p><b>Community Development</b></p>	 <p><b>Occupational Health and Safety</b></p>	 <p><b>Human Rights</b></p>	 <p><b>Talent Management</b></p>	 <p><b>Supply Chain Sustainability</b></p>

### FY 2022-23

 <p><b>Climate Change and Decarbonisation</b></p>	 <p><b>Air Emissions and Quality</b></p>	 <p><b>Waste Management</b></p>	 <p><b>Biodiversity and Ecosystem</b></p>	 <p><b>Human Rights</b></p>
 <p><b>Community Engagement and Development</b></p>	 <p><b>Health, Safety and Well-Being</b></p>	 <p><b>Land Acquisition, Rehabilitation and Closure</b></p>	 <p><b>Diversity, Equal Opportunity, and Inclusion</b></p>	 <p><b>Learning Development</b></p>
 <p><b>Business Ethics and Corporate Governance Responsible Advocacy</b></p>	 <p><b>Data Privacy and Cybersecurity</b></p>	 <p><b>Innovation and R&amp;D</b></p>	 <p><b>Product Stewardship</b></p>	







**“We stand resolutely committed to a responsible, ethical, and environmentally conscious path, epitomized by our unwavering dedication to robust governance, responsible advocacy, and sustainable practices in the ever-evolving aluminium industry.”**

# Governance

Business Ethics and Corporate Governance	56
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Innovation and R&D	59
Product Stewardship	60



In the constantly changing and dynamic aluminium industry, strong governance serves as the foundation for achieving sustainable growth, conducting responsible operations, and securing long-term success. As a significant presence in this crucial sector, Vedanta

acknowledges the importance of establishing a robust and transparent governance framework. This framework not only ensures compliance with legal and regulatory standards but also reinforces our dedication to ethical behaviour and environmental responsibility.



## Business Ethics and Corporate Governance

### RESPONSIBLE ADVOCACY

Vedanta Aluminium engages in proactive and thoughtful advocacy initiatives aimed at influencing policy decisions that impact various aspects of the aluminium industry. Our responsible advocacy involves engaging with a range of stakeholders, including industry associations, think tanks, academia, and media, to address pertinent policy and regulatory matters. These efforts are marked by inclusivity, transparency, and active participation in stakeholder consultations. The company's focus areas for advocacy include economic reforms, ensuring raw material and energy security, promoting sustainable business practices, enhancing the ease of doing business, and ensuring business continuity.

#### Climate Advocacy

At Vedanta Aluminium we are steadfast in our commitment in ensuring that the perspectives of our stakeholders are fully harmonized with our climate change commitments. Vedanta takes immense pride in championing initiatives such as the CII Climate Charter and the CEO Declaration on Climate Change. As dedicated members of these influential platforms, our company fervently champions the cause of urging Indian industries to set forth ambitious climate commitments that are in perfect alignment with the country's overarching Net Zero objective.

To ensure effective decision-making and alignment on climate change matters, our Group Executive Committee



(Group ExCo), the apex body responsible for all organizational decisions, including those related to climate change, convenes monthly in line with Paris Agreement. This committee ensures that Business Units (BUs) and sustainability teams reviews and monitors the alignment of our public policy engagements and lobbying with trade associations in line with Paris Agreement. This committee also ensures that have a crystal-clear understanding of the Group's climate change and sustainability objectives, and that they are diligently working in accordance with these goals. This internal communication and coordination mechanism guarantee the effective dissemination of Vedanta's long-term strategy across all our operations, enabling individual BUs to engage with trade associations and policymakers from a unified organizational standpoint. Furthermore, Vedanta's Chief Operating Officers (COOs) across multiple businesses actively participate in the Energy & Carbon Community of Practice (CoP). This platform serves as the foundation for a clear dissemination of Vedanta's climate change strategy to BUs and forms the basis for their engagement with trade associations and policymakers. If any potential misalignment is identified, we will initiate discussions with the relevant association to address discrepancies related to Vedanta Aluminium's dedication to the implementation of the Paris Agreement. Our primary focus will be on engaging with those organizations that exhibit evidence of alignment with the Paris Agreement, irrespective of their public statements..

Through industry collaboration and advocacy, we have undertaken several initiatives:

Sr. No.	Industry Association / Trade Chamber	Advocacy Initiative
1.	Confederation of Indian Industry (CII)	Our initiative involves the establishment of BIS (Bureau of Indian Standards) Quality Standards for both aluminium scrap and finished products. This endeavor is aimed at fostering the manufacturing of superior-quality products.
2.	Coal Consumers Association of India (CCAI)	We are actively promoting a circular economy by ensuring the beneficial utilization of both fly ash and bauxite residue. This approach focuses on maximising the value and sustainability of these materials in various processes and applications.
3.	The Aluminium Association of India (AAI)	Strategic Sector Importance: Vedanta Aluminium aims to establish the significance of the Indian Aluminium Industry as a strategic sector or core industry within the broader economic landscape.
4.	The Federation of Indian Mineral Industries (FIMI)	Self-Sufficiency: We are aligned with the Indian Government's vision of a self-reliant India by working towards creating self-sufficiency for aluminium production within the country. This involves fostering domestic capabilities to meet the demand for aluminium, thereby reducing dependency on imports.
5.	The Federation of Indian Chambers of Commerce & Industry (FICCI)	Promoting Domestic Value Addition: We advocate for policies that encourage the domestic mineral and metal sector to increase mineral production and enhance value addition within the country. By doing so, the company contributes to employment opportunities and supports the growth of Micro, Small, and Medium Enterprises (MSMEs).
6.	The Associated Chambers of Commerce and Industry (ASSOCHAM)	Raw Material Security: Our advocacy efforts focus on ensuring raw material security for the domestic manufacturing of aluminium. This involves advocating for policies that facilitate access to essential raw materials, thereby supporting the sustainability and growth of the industry.

In FY 2023, our company made significant contributions to various trade associations, totalling INR 2.86 million in membership fees. We have not made any political contributions. The Board's policy explicitly states that Vedanta will not, under any circumstances, provide donations or contributions to political organizations. It is important to note that, in accordance with local legislation and Indian customs, subsidiaries operating in India may engage in political donations or contributions. Should any such political donations be made by the units within the Aluminium Sector, we are fully committed to transparently disclosing these contributions in the Sector's Annual Report and Accounts. Our advocacy spends and other contributions are given below:

**Advocacy Spend and Other Contributions (All values in INR million)**

Groups	FY 2020		FY 2021		FY 2022		FY 2023	
Lobbying, interest representation or similar	0		0		0		0	
Local, regional or national political campaigns/ candidates	0		0		0		0	
Trade associations or tax exempted groups such as industry bodies, think tanks	APP	2.5	APP	2.5	APP	2.5	APP	2.5
	FIMI	0.18	FIMI	0.18	FIMI	0.18	FIMI	0.18
	CCAI	0.15	CCAI	0.15	CCAI	0.15	CCAI	0.15
	AAI	0.03	AAI	0.03	AAI	0.03	AAI	0.03
	Total	2.86	Total	2.86	Total	2.86	Total	2.86
Other (Electoral Bonds, etc.)	0		0		0		0	

# Data Privacy and Cybersecurity

At Vedanta Aluminium, we uphold an Information Security Policy that provides us with a framework for developing and executing a robust data management strategy. This policy plays a pivotal role in safeguarding our information from a range of potential risks, including external attacks, hacker intrusions, third-party outsourcing risks to our IT assets, natural disasters, and industrial espionage. This policy is accessible to all our employees, ensuring transparency and awareness.

To bolster our cybersecurity efforts, we've established an advanced risk management framework aligned with international standards such as ISO 27001:2013 across our Business Units (BUs). This framework encompasses comprehensive risk assessments conducted annually, which even involve simulated hacker attacks to gauge the preparedness of our employees. The identified risks are systematically categorized across different domains, such as information, services, software, and physical assets. Our expert IT team members are then tasked with mitigating these risks based on their type and severity.

Our approach to cybersecurity risk management is reinforced through continuous monitoring and evaluation, both at the Board level and within the executive management. We've instituted two dedicated committees to fortify our security infrastructure and seamlessly integrate cybersecurity into our business operations. The Vedanta Limited Information Security Committee (VLISC) oversees information security and strategy for the entire sector, while the Business Information Security Committee (BISC), also known as the location management committee, takes charge of information security at individual business units.

Our IT Policy mandates the formalization of contracts with third-party business partners, outlining security controls, service delivery measures, and timelines, thereby ensuring the implementation of these requirements. Expanding upon our company-wide cybersecurity policy, we've launched a comprehensive Information Security and Awareness Programme for all employees and business partners. Our Business Continuity Management Plan encompasses a robust Disaster Recovery Plan that facilitates the maintenance or restoration of critical business operations with the aid of IT systems, even during unprecedented scenarios. Mr. Sunil Duggal, the CEO of the Company, holds the responsibility for driving digital initiatives, including cybersecurity, with support from VLISC. The Chief Digital and IT Officer (CDIO) of the Sector reports to the executive management team and is accountable for overseeing cybersecurity across our business.

In line with our proactive stance on risk, we also conduct assessments that encompass various threats to our assets arising from third-party outsourcing. Our commitment to cybersecurity education is demonstrated by the training and education of our personnel regarding the perils linked to inadequate cybersecurity measures. Our comprehensive approach includes a yearly review of our risk assessment and mitigation plan for cybersecurity. Furthermore, we perform annual cybersecurity audits to identify emerging threats pertaining to information security. In cases where risks are identified during these audits, we take swift action to address them within specified timeframes. Our team of IT professionals also carries out IT security audits to elevate our IT security standards and reinforce our IT infrastructure.







**Innovating Tomorrow:** R&D team charts the course for a sustainable future through collaborative ideation



**Integrating robotics into core operations** to achieve business excellence



## Innovation and R&D

At Vedanta Aluminium, our primary goal is to achieve sustainable business prosperity by adopting the Triple Bottom Line Model, which places a strong emphasis on sustainable growth throughout our entire value chain. This commitment is driven by our deep concern for the well-being of society, and we actively strive to mitigate any adverse impacts stemming from our operations. Our comprehensive approach combines innovation, ambitious policies, and close collaboration with our stakeholders to address these challenges.

Innovation is a fundamental value at Vedanta, and it plays a central role in our sustainable growth strategy, alongside cutting-edge technology. Within our 'Sales and Marketing' division, we have established three distinct innovation centres, each dedicated to specific aspects of our business: Products, Processes, and Perception Management. Our vision for Vedanta goes beyond the development of business applications, revenue models, and new products. We aim to pioneer indigenous technologies precisely tailored to our unique assets and operational processes. This ambitious vision gave rise

to our Innovation Cell, a dynamic platform that leverages the power of digitalization. The Innovation Cell serves as an incubator for the creative ideas generated by our talented and youthful workforce. It empowers them to propose fresh and disruptive solutions to address complex business challenges. This approach not only fosters a collaborative and participative problem-solving environment for our employees but also provides us with the opportunity to benchmark our performance against global best practices through collaborations with other industries and academic institutions.

We foster an environment conducive to innovation, aimed at achieving a zero-harm environment while showcasing the optimal utilization of our natural resources, enhanced efficiencies, and by-product recovery. Our Research and Development (R&D) efforts have led to the establishment of an open innovation network in collaboration with esteemed institutions such as CSIR, IITs, and other research organizations. In the fiscal year 2023, our R&D team made substantial contributions in various areas.

**New Product Development:** We achieved significant advancements in the development of deep drawing and anodizing grade AA3003 circles. Through innovative approaches such as new alloy chemistry design, optimization of homogenization cycles, fine-tuning of hot and cold rolling schedules, and annealing cycles, we improved the material's deep drawability and anodizing response. By maximizing the conversion of  $\beta$ -phase to stable  $\alpha$ -phase, we successfully reduced plastic anisotropy and enhanced anodizing surface quality. Initially facing a 70% rejection rate due to tearing during deep drawing operations and anodizing issues, our innovative processes have virtually eliminated tearing and anodizing quality problems at the customer's end.

**Utilization of Spent Potline and Shot Blast Dust:** We have successfully developed processes to recover valuable products from waste streams generated by spent potlines and shot blast dust. These recovered products, including graphite and cryolite, find application in high-end uses. Basic Engineering exercises have been completed for both processes and plans for pilot plants of suitable capacity are under consideration.

**Dross Slag Utilization:** Our R&D team developed a novel laboratory process to utilize dross slag for manufacturing valuable products like AlF<sub>3</sub>. Additionally, we prepared a Basic Engineering package, including equipment lists, layout plans, mass and energy balances, and total CAPEX requirements. Our sister company, M/S Runaya, has expressed interest in setting up a pilot plant for this purpose.

**Adoption of Artificial Intelligence:** In our continuous pursuit of safety, we have embraced artificial intelligence-based technology to minimize the risk of injuries. AI-based insights are being employed to ensure safety during the manufacturing process and enable remote safety surveillance 24X7. Comprehensive AI models have been established, incorporating data from cameras, sensors, edge devices, and drones, to identify and manage safety risks during daily operations, construction projects, shutdowns, and turnarounds. This AI-powered software empowers our in-plant monitoring team to collect real-time asset data, facilitating timely and informed decision-making.

*In essence, our unwavering commitment to sustainable growth and innovation underscores Vedanta Aluminium's dedication to not only meeting but surpassing our social and environmental responsibilities while concurrently driving economic success.*

## Product Stewardship

Product stewardship for Vedanta Aluminium refers to the responsible and sustainable management of our products throughout their lifecycle. This concept encompasses various practices aimed at minimising the environmental, health, and safety impacts associated

with the manufacturing, use, and disposal of our products. The goal of product stewardship is to ensure that products are designed, produced, and managed in a way that considers their entire lifecycle, from raw material extraction to end-of-life disposal or recycling.

Below are some key aspects of product stewardship for Vedanta Aluminium:

#### Design for Sustainability

As part of fulfilling our aim of sustainable development, Vedanta Aluminium considers the environmental and social impacts of our products from the design phase. This involves making design choices that reduce resource consumption, energy use, emissions, and waste generation while maintaining product functionality and quality. On the matter of business resilience and stewardship against climate-related risks, we have realized the necessity of innovative design improvements at our operations.

#### Raw Material Sourcing

At Vedanta Aluminium we ensure that our mining activities do not change the landform significantly. The mine pit is rehabilitated concurrently and will be 100% reclaimed by concurrent backfilling at the end of the operations. Responsible sourcing of raw materials, in this case, aluminium, is crucial. This could involve ensuring that the aluminium is sourced from ethical and environmentally responsible suppliers.

#### Manufacturing Practices

Implementing efficient manufacturing processes that minimise waste, energy consumption, and emissions is an essential aspect of product stewardship. This includes optimising production techniques, reducing water usage, and employing energy-efficient technologies.

#### Product Use and Maintenance

In order to uphold responsible product management, we have implemented a series of proactive measures. One of these initiatives involves providing our clients with comprehensive guidance encompassing the appropriate application, upkeep, and environmentally mindful disposal of aluminium products. This practice serves to prolong their operational lifespan and mitigate the potential for untimely discarding. Moreover, our specialized team known as the Customer Technical Support (CTS) unit is dedicated to addressing the intricate technical necessities of Vedanta's esteemed clientele. This unit operates in close collaboration with our Sales and Marketing division, diligently overseeing the alignment of all technical and quality requisites of our consumers in relation to both the existing product portfolio and the ongoing development of new products. This meticulous approach ensures a consistent standard of excellence in terms of the quality and services offered by Vedanta Aluminium. The results of our Customer Satisfaction Survey indicate that in FY 2023, 48% of respondents are satisfied with our services.

	FY 2020		FY 2021		FY 2022		FY 2023
	JSG & LNJ	BALCO	JSG & LNJ	BALCO	JSG & LNJ	BALCO	Sector Total
% of satisfied respondents out of total number of respondents to the survey (A)	45%	52%	59%	63%	59%	63%	48%
% of customers surveyed (B)	63.5%		79.9%		79.9%		59%

In summary, product stewardship for us involves a holistic approach to ensure that the products are produced, used, and disposed of in an environmentally responsible and sustainable manner. We aim to minimise negative impacts and promote long-term value for both the Company and

its stakeholders. Considering that product stewardship is an ongoing process that requires continuous assessment, measurement, and improvement, we regularly review our practices and adjust based on new insights, technologies, and best practices.





“As we progress on our path, we are aware of the environmental footprint we leave at every turn. Driven by our unwavering commitment to a sustainable future, our mission is to seamlessly integrate industrial advancement with environmental stewardship, ensuring our legacy consists of responsible practices that nurture a greener planet for future generations.”



# Environment

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At Vedanta, we acknowledge the significant environmental impact of our operations, and as a responsible global entity, we are committed to minimizing this impact while embedding sustainability. This section offers an in-depth look at our initiatives in combating climate

change, conserving resources, protecting biodiversity, and advocating for sustainable practices. Our dedication to environmental stewardship, harmonized with industrial progress, stems from our aspiration to leave a positive and lasting legacy.

Our operational sites comply with both national and international standards, and each business unit has put in place Environment Management Systems certified according to ISO 14001:2015 standards, verified by independent third-party experts. Apart from this, during the past four fiscal years, there were no material environmental violations at any of our operations exceeding USD 10,000 and we have not paid any significant fines related to environmental or ecological issues for our operations.

Our environmental investments have always been on the forefront, generating significant number of returns. This year also we invested in various aspects driving environmental initiatives which yielded substantial savings. The figures in the table below represent these.

Particulars	FY 2023 (in INR Mn)
	SECTOR
Capital Investments	1,02,59,42,082
Operating Expenses	10,43,17,32,989
Total Expenses	11,45,76,75,071
Savings, cost avoidance, income, tax incentives, etc.	2,71,37,94,295
% of operations covered	100%



# Climate Change and Decarbonisation

Climate change stands as the foremost global crisis, responsible for disturbances such as shifting weather patterns, escalating sea levels, and recurrent extreme events. The World Economic Forum's FY 2023 Global Risk Report underscores it as a significant threat in the short and long term. As per the IPCC, a 1.5°C temperature rise could result in a staggering USD 54 trillion in damage by 2100. Climate change is currently adversely affecting economies worldwide, underscoring the imperative for swift action and worldwide decarbonisation—a momentum that has been propelled since the Paris Agreement.

To address this, we must collaborate to employ mitigation technologies and adaptation measures, maintaining ecological balance while fostering economic growth for a secure future. In the past, the aluminium industry has been recognized for its substantial capital requirements and significant energy usage, particularly when dependent on coal-based thermal power, leading to increased greenhouse gas emissions. Nevertheless, our climate initiatives are driven by one clear and ambitious goal:

Vedanta Aluminium firmly aims to achieve Net Zero Carbon status by 2050 or sooner.

Our strategy is underpinned by the following framework:



## Reducing Carbon Footprint Throughout the Value Chain:

We have set an ambitious goal to achieve Net Zero Carbon emissions by 2050. By 2030, we aim to reduce the GHG intensity of our operations by 28% compared to the 2021 baseline. We are also in plan to collaborate with our customers and logistics partners to lower downstream Scope 3 emissions stemming from our business.



## Capitalizing on Opportunities in the Low-Carbon Transition:

Recognizing the critical role of metals in the global transition to a low-carbon economy, we have introduced India's first low-carbon aluminium, known as Restora and ultra-low carbon aluminium, Restora Ultra.



## Policy and Governance for Internal Carbon Pricing:

Vedanta Aluminium has embedded carbon pricing into investment decision-making process. In FY 2022, ICP mechanism has been created to introduce shadow prices to redirect new investments, and promoting clean energy.



## Supporting Climate Resilience:

We are proactively enhancing the resilience of our operations and assisting neighbouring communities in preparing for the physical impacts of climate change. This includes factoring in various climate-related risk scenarios into our project designs.

## Management Approach

Climate change stands as a paramount concern for our Socially Responsible Investment (SRI) stakeholders and is duly integrated into our roster of business risks. We have undertaken comprehensive scenario analysis to diligently evaluate the potential impacts, both in terms of physical and transition-related risks and opportunities, that climate change may pose to our operations. The insights from this analysis have subsequently informed the formulation of our climate strategy, encompassing short-term and long-term objectives, along with an actionable plan. Additionally, our Board and Management play an instrumental role in the oversight and guidance of our overarching climate strategy.

Our approach to climate reporting and transparency adheres to the TCFD guidelines. In alignment with this framework, we are measuring specific business metrics and targets to meticulously track our progress in attaining our climate-related objectives. Moreover, our adherence to TCFD also necessitates the development of risk mitigation strategies, which have been diligently put in place.

For detailed information on our climate strategy and risks, refer our TCFD report 2023.



Scan to view



This strategy outlines how we approach the assessment and management of climate change-related risks and opportunities. Our objective is to effectively control our energy usage to minimize our carbon emissions, all the while ensuring that both our businesses and our communities are well-prepared for the effects of climate change. This strategy is reinforced by our governance procedures and is seamlessly incorporated into our strategic and day-to-day decision-making processes.

### Governance

Vedanta's governance structure is robustly geared towards addressing climate-related concerns and ensuring sustainable practices. At the apex level, the Board plays a pivotal role in overseeing various aspects, from strategy to community engagement, while prioritizing business performance. It vigilantly monitors risk management frameworks, including climate risks and opportunities, ensuring that the group remains resilient. The Board also maintains a stringent focus on climate-related risk management, reviewing goals, incentives, targets, and key performance indicators.

Additionally, the Board ESG Committee, consisting of the Group CEO, Independent Directors and Non-executive Director offers strategic guidance on climate-related matters, formulates policies, and monitors regulatory changes in the climate and sustainability arena. This committee plays a central role in shaping short, medium, and long-term climate and ESG targets, fostering sustainability and climate change culture across the organization. It evaluates emerging sustainability and climate risks and advises management on mitigation strategies.

The Aluminium Sector's Chief Executive Officer and Chief Transformation Officer oversees ESG strategy implementation at the sector level, while the Group Executive Committee coordinates business scopes and advises the Board ESG committee on key performance indicators. The ESG Management Committee provides governance and strategic leadership, facilitating the execution of sustainability strategies. The Chief Sustainability Officer for the Aluminium Sector spearheads climate action plans, while ESG Heads at specific business units ensure transparent reporting, disclosure, and risk mitigation, contributing to Vedanta's overarching commitment to sustainability and climate resilience.

### Our Carbon and Energy Policy

Our Energy and Carbon policy is a core part of the Vedanta Sustainability Framework and promotes investment in renewable energy and R&D for emission reduction. Oversight of this policy is provided by the Vedanta Board of Directors, and executives are held accountable for energy and carbon performance, while line managers are responsible for its full implementation.

We actively collaborate with industry associations on a global, regional, national, and local scale. This collaborative effort aims to promote best practices, align with regulatory frameworks, enhance communication with governmental entities, and raise awareness of the industry's significance.





### Scenario Analysis and Risk Management

In 2022, we conducted a comprehensive scenario analysis for both transition and physical climate risks, with inputs from an expert third party. The analysis was aligned with the IPCC Representative Concentration Pathways (RCPs) and incorporates the technical guidelines outlined in the 2017 TCFD report. We utilised two key scenarios:



#### High Climate Change Scenario (RCP 8.5):

This scenario depicts a business-as-usual trajectory with emissions continuing at current rates, potentially resulting in global warming exceeding 4 degrees Celsius by 2100.



#### Moderate Climate Change Scenario (RCP 4.5):

In this scenario, aggressive mitigation efforts reduce emissions to half of current levels by 2080, making it more likely than not to result in warming exceeding 2 degrees Celsius by 2100.






These scenarios are not only in line with prominent IEA scenarios but also underpinned by IPCC projections, extended macroeconomic forecasts, and internal evaluations of climate-related risks, specifically tailored to Vedanta's existing operations and ongoing projects, with a focus on developments until 2060.

### Physical Risk Scenario Analysis

We recognize our vulnerability to climate change impacts such as cyclones, droughts, temperature fluctuations, floods, and erratic rainfall affecting our operational locations in Odisha and Chhattisgarh. The assessment,

conducted using the World Bank's Climate Change Knowledge Portal, involves historical trend analysis and vulnerability assessment from 2020-2059, categorizing risk indices into five categories from Very Low to Very High.

### Physical Risks

Hazard	Risk Statement	Risk Category
<b>Wind/Cyclone</b> 	High wind speed can make major damage to non-critical infrastructure or minor damage to critical infrastructure.	Acute Risk
<b>Drought</b> 	Drought can increase surface evaporation, reducing water storage, and also increase dust damage.	Acute Risk
<b>Extreme Temperature</b> 	Medium to high change in maximum temperature negatively impact on the workforce, ores, raw material storage and reducing efficiency by affecting the maintenance of plant.	Chronic Risk
<b>Flood</b> 	The flooding may also result in damage to infrastructure and can represent a risk to workplace safety.	Acute Risk
<b>Rainfall</b> 	Droughts are usually caused by lack of rainfall and limited water retention capacity of reservoirs, aggravated by hot and sunny weather.	Acute Risk

The overall climate-related physical risk is 'Medium'. The projected temperature rise poses a risk to building infrastructure, potentially causing damage. Additionally, the Business Unit's vulnerability to high cyclone risk could impact its production and operations. The increasing temperatures and heatwaves may also have health and safety implications for Vedanta Aluminium staff. Furthermore, the heightened risk of drought is expected to increase water demands and competition for resources, potentially leading to social conflicts. To address these

challenges, adaptation measures are essential to mitigate future heat stress and water scarcity.

### Transition Risk Scenario Analysis

Vedanta's governance structure is robustly geared towards Transition risk analysis delves into factors including policy and legal risks, market dynamics, technological advancements, and reputational considerations, all of which may pose financial and reputational challenges as we transition to a lower-carbon economy.

## Transition Risks

### Type of risk: Policy and Legal



#### Climate-related risks

- Emerging Regulations of greenhouse gas emissions such as Perform, Achieve, Trade (PAT) scheme and Renewable Purchase Obligations (short-term).
- Introduction of carbon emissions trading mechanisms (long-term)
- Enhanced emission-reporting obligations in accordance with the Paris Agreement,
- Exposure to litigation can be for numerous reasons some of them being non-compliance with reporting, negative impacts to climate change/ environment



#### Potential impacts

- Increased operational costs (higher compliance costs, increased insurance premium)
- In case of a domestic carbon tax or ETS in India, the more Unit emits, it will be subjected to greater levels of carbon taxation.
- Impact through increased costs and/ or reduced demand for aluminium products resulting from environmental fines and judgements.
- Increased local and national reporting requirements

### Type of risk: Technology



#### Climate-related risks

- Low Carbon Product Substitution: London Metal Exchange has proposed to introduce LME passport which specifies Carbon Footprint of produced Aluminium. There is an increasing trend for Green Aluminium or low carbon metal among the consumers.
- Costs to transition to lower emission technology



#### Potential impacts

- Increased research and development (R&D) expenditures in new and alternative technologies such as low-carbon aluminium or for recycling technologies, use of electric vehicles and utilising renewable sources for electricity etc.
- Costs to adopt/ deploy new practices and processes by changing the current functioning of the company will incur costs

## Type of risk: Market

**Climate-related risks**

- Changing consumer behaviour due to the Paris Agreement and the European Green Deal
- Carbon Border Adjustment Mechanism (CBAM) can impose a cost on aluminium goods imported into the European Union.
- High dependency on coal owing to the locations being in India
- Increased cost of raw materials

**Potential impacts**

- Reduced demand for high carbon aluminium due to shift in consumer preferences
- Increased production costs due to changing input prices (energy, water) and output requirements (waste treatment)

## Type of risk: Reputation

**Climate-related risks**

- Stigmatization of sectors such as those highly contributing to the GHG emissions
- Shift in interest of the investors

**Potential impacts**

- Reduced revenue from decreased demand for goods
- Reduced revenue from decreased production capacity (supply chain interruptions)
- Fines and non-compliance will ultimately affect the reputation of the company, which will impact access to financing and insurance policies

**Opportunities**

The metals and mining sector stands to benefit significantly from the transition to a low-carbon economy. The growing demand for renewable energy, electric transportation, energy storage solutions (like batteries), eco-friendly construction, sustainable packaging, lightweight and fuel-efficient vehicles, sustainable cities, high tech manufacturing and more, will drive the need for metals such as aluminium. The industry is proactively preparing for this future by decarbonizing its operations and introducing low-carbon aluminium products.

In FY 2022, Vedanta Aluminium achieved a significant milestone by becoming the first company in India to introduce 'Restora', our flagship brand of environmentally friendly, low-carbon aluminium. The name 'Restora' symbolizes our commitment to restoring environmental balance through the production of low-carbon products.

Within the Restora product line, we offer two distinct options: Restora (Low Carbon Aluminium) and Restora Ultra (Ultra-low Carbon Aluminium), catering to customers worldwide. Restora is manufactured using renewable energy sources, while Restora Ultra is produced using aluminium recovered from dross, a byproduct of aluminium smelting, through our partnership with Runaya Refining.

**Metrics & Targets**

As part of our commitment to achieving net-zero emissions, we have set specific targets to mitigate the impact of activities that generate emissions. These targets are a fundamental part of our strategy for managing climate-related risks and opportunities. By actively reducing emissions, we not only contribute to our sustainability objectives but also enhance our overall risk management approach to address the challenges posed by climate change.

## Summary of our progress towards Net Zero Emission by 2050:

### (Scope 1+ Scope 2) GHG intensity

#### Summary of progress in 2023



From 19.3 tCO<sub>2</sub>e/T in FY 2021 to 17.69 tCO<sub>2</sub>e/T in FY 2023 which is a reduction of 8.13% from the FY 2021 baseline intensity and an increase of 0.5% from FY 2022 for our aluminium business.

The GHG Intensity of Power business is 0.96 tCO<sub>2</sub>e/MWH.



**2023**

18.3 tCO<sub>2</sub>e/T from 19.3 tCO<sub>2</sub>e/T in FY 2021 baseline for our aluminium business.

**2025**

16.6 tCO<sub>2</sub>e/T from 19.3 tCO<sub>2</sub>e/T in FY 2021 leading to around 14% intensity reduction from FY 2021 baseline for our aluminium business.

### (Scope 1+ Scope 2) Absolute emissions

#### Summary of progress in 2023



The absolute emission for aluminium business is 37.88 million tCO<sub>2</sub>e, an increase of 5% from FY 2021 baseline and 0.6% increase from FY 2022 baseline.

The absolute emissions for power business are 4.11 million tCO<sub>2</sub>e.



**2023**

The target for the aluminium business was 40.24 million tCO<sub>2</sub>e.

**2025**

The target for the aluminium business is 43.8 million of tCO<sub>2</sub>e .

### Scope 3 emissions

#### Summary of progress in 2023



The absolute emission for aluminium business is 8.1 million tCO<sub>2</sub>e.

The emission intensity for the aluminium business is 3.87 tCO<sub>2</sub>e/ t of AL.



**Target**

**2023**

Improving data availability for accurate calculation Estimation of Scope 3 emission for the business.

**2025**

10% reduction in Scope 3 emission intensity from FY 2021 baseline.





### GHG emissions

We have been reporting our Scope emissions as per the GHG Protocol's Standards. This year we saw a reduction in our scope 1 and 2 emission intensities by 8.13% and are well in line to achieve our target for FY 25.

Business		Scope 1	Scope 2	Scope 3
Aluminium	BALCO	87,47,945	4,64,162	19,91,987
	Jharsuguda	2,13,98,139	53,99,730	55,67,124
	Lanjigarh	18,45,992	22,443	5,42,966
Power	BALCO IPP	9,30,058	0	Included above
	Jharsuguda IPP	31,78,797	0	Included above
Total		3,61,00,932	58,86,335	81,02,077

#### Note:

We have used the following methodologies for collecting activity data and calculating emissions-

- IPCC Guidelines for National Greenhouse Gas Inventories, 2006
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 2 Guidance
- CO<sub>2</sub> Baseline Database for Indian Power Sector
- IPCC Guidelines 2019 GHG Inventory
- Power business includes Jharsuguda and BALCO IPP i.e., power provision to respective state grids



**Strategic Minds:** Shaping the blueprint for a sustainable future

# Energy Management

Vedanta Aluminium primarily fulfils its energy needs through its captive coal-fired power plants. Our ability to sustain both our long-term economic prosperity and environmental well-being relies on the reduction of energy consumption and the associated expenses. Therefore, energy conservation plays a vital role in our efforts to diminish our carbon impact.

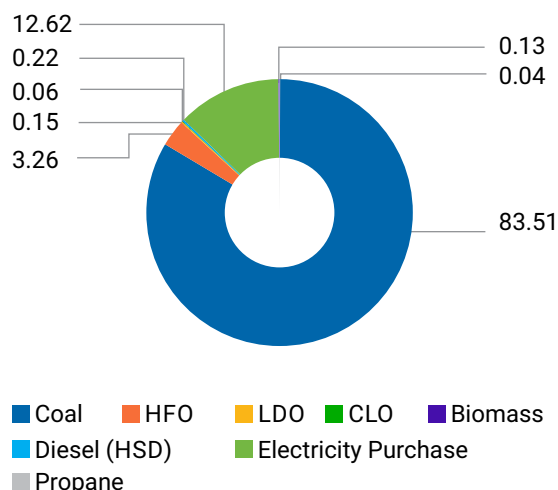
To continually enhance our energy performance and efficiency, we are signatory to global benchmarks and standards such as Aluminium Stewardship Initiative (ASI) and Confederation of Indian Industry (CII) Climate Action Charter. This step reaffirms our commitment to realizing Net Zero carbon operations and will also help us benchmark industry best practices, for long-term competitiveness and realization of sustainability targets.

Total energy consumption f (unit MWH)	2022-23			
	JSG	BALCO	LNJ	TOTAL
Data coverage (as % of denominator)	Aluminium business			
Total non-renewable energy consumption	5,95,94,189	2,29,44,641	56,72,914	8,82,11,744
Total renewable energy consumption	7,40,270	5,65,950	6,734	13,12,955
Total energy consumption unit MWH	6,03,34,459	2,35,10,591	56,79,649	8,95,24,699

The energy consumption target for aluminium business is **95.42 million MWH**

## Percentage contribution of fuels

### Fuel Mix



At BALCO, we've earned recognition as a Top Performer in the Aluminium Sector for PAT Cycle-II. This achievement comes from our performance in the Perform, Achieve, and Trade (PAT) scheme. PAT is an initiative by the Bureau of Energy Efficiency, aiming to encourage energy-intensive industries to reduce their Specific Energy Consumption. In PAT, companies can trade certificates based on their extra energy savings, thanks to a market-based mechanism. This program, mandated by the Ministry of Power in India, acts as a regulatory tool to reduce specific energy consumption in energy-intensive sectors, promoting cost-effective improvements by certifying and facilitating the exchange of surplus energy savings.



Graphitized cathode installation in smelter leads to reduction in GHG emission intensity. This project aims at reducing GHG emissions resulting from higher power consumption in the smelter. In FY 2021, the power consumption was 14,048 kWh per metric ton of aluminium (MT-Al), contributing to a baseline GHG emission of 17.46 TCO<sub>2</sub>e/MT-Al. In order to reduce these emissions, graphitized cathode installation was implemented in the potline. These installations have resulted in reduction in ACapower 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.

We are dedicated to diminishing the carbon footprint of our operations by championing eco-efficiency and adopting renewable energy sources whenever they are viable. During this reporting period, we have initiated numerous energy conservation measures, such as 100% installation of graphitized cathode enhancements,

Vedanta pot controller, Biomass co-firing, utilizing biodiesel, reducing Specific Coal Consumption in our power plants, and optimizing processes in our smelting operations. We were able to achieve total energy savings of **14,29,962 GJ** through our various energy efficiency initiatives:

#### Energy Efficiency initiatives:

<b>Smelter</b>	<b>6,29,794 GJ</b> Graphitization of cathodes	<b>57,513 GJ</b> Improvement in potline operational efficiency	<b>6,303 GJ</b> Deployment of EV forklifts
<b>Power</b>	<b>4,753 GJ</b> Boiler efficiency improvement	<b>83,486 GJ</b> Leakage control in ducts	<b>5,155 GJ</b> Auxiliary power consumption reduction
	<b>77,975 GJ</b> Cooling tower efficiency improvement	<b>70,766 GJ</b> Biomass co-firing	
<b>Refinery</b>	Calciner 1 & 2 Venturi & Air Leak Rectification Avoided Emissions: <b>~12988 tCO<sub>2</sub>e/yr</b>	Evaporation 1 & 2 Calendria 1 tube rectification Avoided Emissions: <b>~6988 tCO<sub>2</sub>e/yr</b>	Installation of capacitor banks in all substations Avoided Emissions: <b>~1118 tCO<sub>2</sub>e/yr</b>

These initiatives are part of a comprehensive strategy to enhance energy efficiency, reduce carbon emissions, and improve our operational sustainability across different aspects.



Raw water treatment plant at Alumina Refinery Lanjigarh, Odisha



**Sustainability Strategy | 100% Renewable Energy by 2050**
**Summary of progress in 2023**


- 4% of total energy procured across all BUs was renewable energy.
- 1.37 billion units of renewable energy consumed

**Target**


- | Year | Target   |
|------|--|
| 2023 | 3% of power requirement of the Sector to be met through renewable energy   |
| 2025 | <ul style="list-style-type: none"> <li>• 7% of power requirement of the Sector to be met through renewable energy</li> <li>• Enter into PDA for 400 MW of Power and use of 400 MW of RE power</li> </ul> |
| 2030 | <ul style="list-style-type: none"> <li>• 30% of power requirement of the Sector to be renewable energy</li> <li>• Installation and use of 1500 MW of RE power</li> </ul>                                 |

In May 2022, we commissioned India's largest electric fleet of 27 forklifts, powered by lithium-ion batteries. Done in partnership with GEAR (Gemini Equipment and Rentals Private Limited) India, this sets the ball rolling on Vedanta Aluminium's plans to decarbonize its industrial vehicle fleet. All 27 forklifts are being operationalised at the company's aluminium smelter at Jharsuguda.

These electric forklifts make use of the cutting-edge 'Smart Fleet Management' system to help ensure the highest levels of safety at site. The Smart Fleet Management system uses IOT (Internet of Things) technology to integrate the data collected by intelligent terminals and provide Vedanta Aluminium insights on a real-time basis with respect to forklift speed, access to operate, collision avoidance, optimization analysis for operational efficiency and equipment maintenance, among others. Further, these electric forklifts are equipped with forward and reverse cameras, ensuring complete visibility to the operators, red-zone light and blue spotlights that create a safe operating zone around the forklift, as well as automatic deceleration mechanism while turning, for enhanced safety.

Many other advantages of this 'green fleet' include reduction in diesel consumption by more than 2.5 lakh litres annually, GHG (greenhouse gas) emission savings of nearly 690 tonnes of CO<sub>2</sub> equivalent, Increase in productivity of operations through longer working cycles via rapid charging, no hassles of frequent battery change, a substantially longer life than conventional lead-acid batteries, virtually maintenance-free, as they are completely sealed.





## Air Emissions and Quality

Clean air is a fundamental necessity for maintaining the intricate balance of life on our planet. At Vedanta Aluminium, we are unwavering in our commitment to identifying and effectively managing emissions into the atmosphere, stemming from all point, line and area sources, particularly those linked to combustion and are resolutely dedicated to enhancing air quality within our airshed.

In our diligent efforts to monitor ambient air quality and stack emissions, we track all parameters as prescribed by the authorities including PM (Particulate Matter), SO<sub>x</sub> (Sulfur Oxides), and NO<sub>x</sub> (Nitrogen Oxides).

### Management Approach

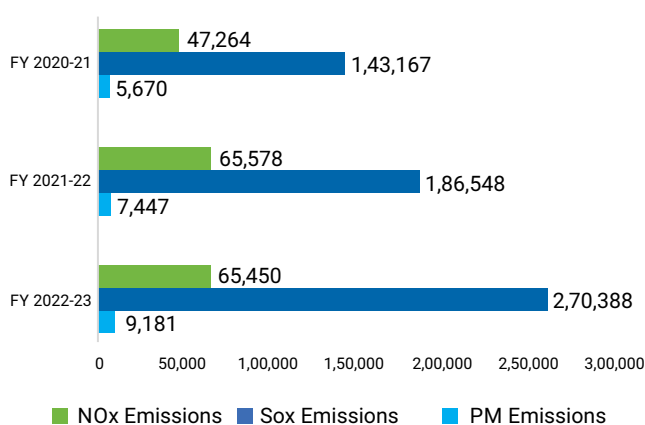
We implement various strategies to reduce emissions from our business operations. These measures encompass process optimization and the adoption of cleaner technologies. In our thermal power plants, we have installed hybrid electrostatic precipitators followed

by bag filters in the stacks to minimise the release of particulate matter. Additionally, our aluminium smelters are equipped with high-efficiency fume treatment systems to mitigate fluoride emissions. We have also executed multiple interventions at the source points to address fugitive emissions like closed conveying facility for CP Coke, Alumina, Coal, Ash & other raw materials, bag filters and dust collection system in all conveying facilities and transfer points, laser & cassette-based fugitive fluoride monitoring system in potline.

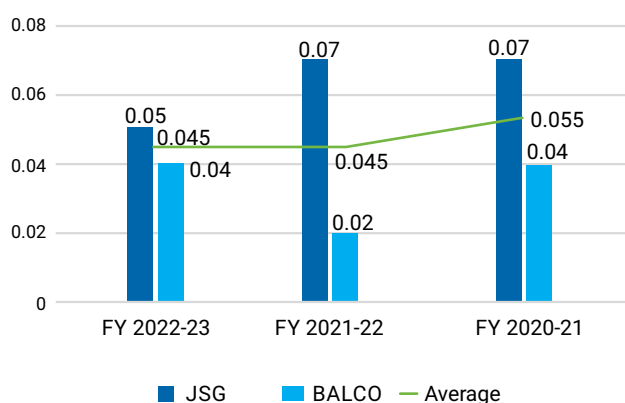
Our comprehensive air quality control programs ensure that we adhere to the pollutant dispersion standards and regulations established by local and national regulatory bodies. Complying with the revised emission norms for coal-based thermal power plants set by the Government of India, our power plants are slated to implement Flue-Gas Desulphurization (FGD) systems in the near future to reduce SO<sub>2</sub> emissions.

The air emissions for this reporting period are depicted below.

### Air Emissions (metric tonnes)



### PFC emissions (kg PFC/ MT)



Note: Emissions from BALCO are included in FY 2022-23 which are from fuel (coal and HFO) combustion, calculated based on Sulphur content present in the fuel. For detailed information, refer to our GRI content index on Page 75

The PFC emissions target for FY 2023 for the aluminium business is 0.05.

### Interventions to enhance Air Quality

Effective management of fugitive dust is vital, as improper handling of ash, including fly and bottom ash, can create conditions conducive to environmental and health concerns. When left untreated, ash tends to dry out and become easily dispersed, resulting in the generation of fugitive dust that can travel to neighbouring areas and negatively impact the air quality in our host communities.

To prevent such issues, we have various measures in place at our ash management facilities. These measures include the implementation of soil and plant cover, along with frequent watering, yards and movable mist cannons in accordance with our internal standards and local regulations. Additionally, our ash conditioner, equipped with an integrated water sprinkling system, as well as water sprinkling systems in our coal yards, features rotating nozzles designed to minimise the release of these contaminants into the surrounding air.

## Water Management

Efficient water management is crucial for maintaining the sustainability of industrial operations, especially for companies like Vedanta operating in resource-intensive sectors. Water, a valuable natural resource, ranks as a top ten significant risk according to the 2023 Global Risk Report by the World Economic Forum. This report underscores the pressing challenges of water scarcity, pollution, and poor water management that require immediate attention. These issues are further worsened by the ongoing impacts of climate change, resulting in more frequent and severe weather events, such as extended droughts and destructive floods.

The importance of having clean and plentiful water extends beyond the well-being of local communities; it is vital for maintaining the ecological balance in our immediate environment. Recognising the critical role of a consistent water supply in our operations, we understand the indispensable need for a robust water management system. Such a system not only secures our business interests but also demonstrates our sincere commitment to addressing the concerns of our stakeholders.

In a time characterized by increasing environmental concerns, rigorous regulations, and a growing emphasis on social responsibility, Vedanta's steadfast commitment to responsible water management not only secures the ongoing success of our operations but also underscores our resolute dedication to environmental stewardship and the consistent embrace of sustainable business principles.

### Management Approach

Our Water Policy directs us to optimize water usage, promote recycling, and strive for zero liquid discharge within our operations, in alignment with UN Sustainable Development Goal 6: Clean Water and Sanitation. This policy forms the foundation for all our technical and performance criteria, with oversight provided by our Board of Directors. To know more please visit our Water Policy.



Scan to view

Access to high-quality water significantly influences our project decisions and investments. We integrate water management into all project decision-making processes to minimise environmental and social risks, considering factors like water availability, quality, sensitive aquatic habitats, and community/stakeholder dependence on water sources, which can vary by location.

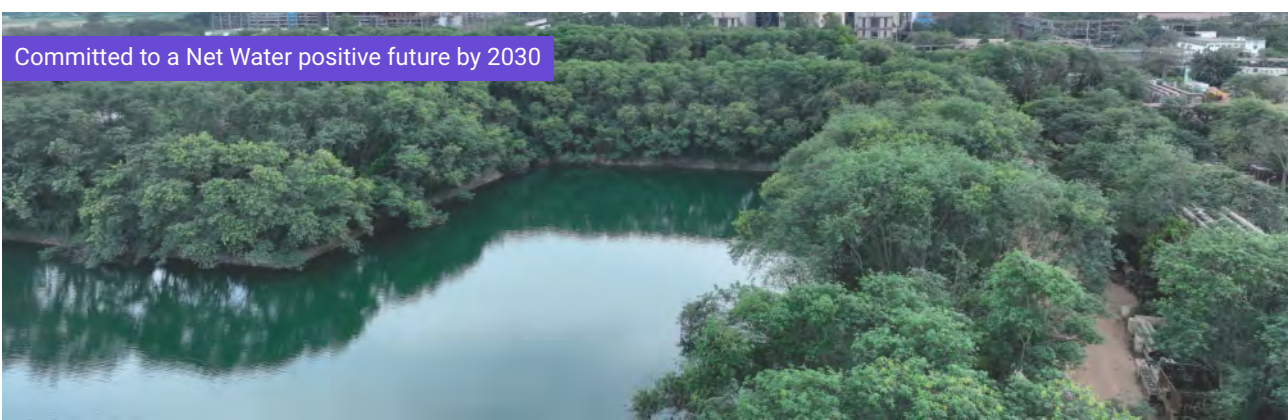
Zero water-related incidents

**76.73 million m<sup>3</sup>**  
freshwater consumption

Freshwater withdrawal reduction from last year

**11%**

Committed to a Net Water positive future by 2030





**Water for All:** Reservoirs ensuring year-round water supply, benefitting nearby communities

#### Water risk assessment

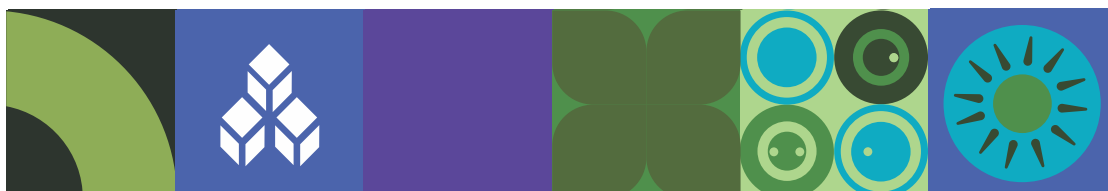
Each of our Business Units has conducted a water screening assessment to pinpoint regions of critical water importance and sensitive aquatic habitats. Furthermore, they've assessed the level of water availability and the extent to which our business relies on shared water sources.

Regular water risk assessments are a standard practice across all our operations to comprehensively grasp water-related business risks. These evaluations help us anticipate potential environmental and social risks associated with water. Subsequently, we design and put into action tailored water risk management plans for

each of our facilities. Our assessments have leveraged the World Resource Institute's (WRI) Aqueduct Global Water Tool for insights. One notable finding from this assessment is that our facilities in Lanjigarh and BALCO is situated in an area marked as high water-stress according to WRI's Water Risk Atlas. This could potentially lead to environmental and social risks due to diminishing water availability in the medium-term.

Additionally, we've conducted a future analysis of water stress, measuring the ratio of water demand by human society to the available water if business continues as usual for all our operations.

Input Address	Latitude	Longitude	Major Basin	Minor Basin	Stress	Degree of Future Water Stress (2030)
Jharsuguda, Odisha, India	21.8554375	84.0061661	Mahanadi	Hirakud Reservoir	Low (<10%)	Low (<10%)
Korba, Chattisgarh, India	22.3594501	82.7500595	Mahanadi	Hasdeo	High (40-80%)	High (40-80%)
Lanjigarh, Odisha, India	19.7096	83.3669181	India Northeast Coast	Vamsadhara	High (40-80%)	High (40-80%)



In response to the situation, we have implemented a series of actions at our facility, primarily aimed at enhancing water efficiency in our operations and maximising the reuse of surface water runoff during the monsoon season. We have erected substantial reservoirs for storing and processing water on the premises. These spacious reservoirs now serve as the primary collection points for both effluent and significant surface runoff during the rainy season. To preserve water resources, limit environmental stormwater discharge, and regulate the intake of fresh water, we restrict the amount of water entering our operational system during this period for makeup purposes. This initiative has resulted in annual savings of approximately INR 4 million water related costs.

We partnered with TÜV SÜD in FY 2023, a global expert in sustainability solutions, to outline our path toward achieving net-positive water operations. In pursuit of this goal, we undertook a baseline study to enhance our water consumption accounting procedures, develop

capabilities for ongoing improvement and conservation, and introduce innovative measures and initiatives to secure a sustainable water footprint. Effective water management stands as a vital cornerstone in our journey towards Environmental, Social, and Governance (ESG) excellence. The following tools were used for the water risk assessment for Vedanta Lanjigarh, Vedanta Jharsuguda, and BALCO, Korba:

- WBCSDs Water Risk Filter
- Water Risk Assessment Framework

Our results for the study were based on the following risk scores:

1.	0<=x<=1.8 (Very Low Risk)
2.	1.8<x<=2.6 (Low Risk)
3.	2.6<x<=3.4 (Medium Risk)
4.	3.4<x<=4.2 (High Risk)
5.	4.2<x<=5.0 (Very High Risk)

Lanjigarh, Jharsuguda, and BALCO each present unique risk profiles:

## LANJIGARH



Operational risk is low but the basin risk is notably higher primarily due to factors like Media Scrutiny and Cultural Importance, posing a significant reputational risk. The aquifer is composed of Basement Gneiss, offering medium to low permeability but valuable water resources. Groundwater extraction is around 40%, leaving 60% available and safe. Water quality is acceptable, free from harmful elements. The site has substantial groundwater availability. Annual rainfall has a water stress ratio indicating extreme water stress in India.

## JHARSUGUDA



The site has low operational risk but a medium basin risk with increasing flood risks by 2030 and 2050. Groundwater levels are safe, categorized as “Safe.” Water quality is acceptable, free from salinity, fluoride, or arsenic. The site boasts substantial groundwater availability. Annual rainfall is 1284 mm, with a water stress ratio highlighting India’s extreme water stress status.

## BALCO



Operational risk is low but basin risk is medium at with factors like Media Scrutiny, Conflict, and Cultural Importance contributing to a significant reputational risk. The aquifer consists of Basement Gneiss, with medium to low permeability and a yield within range per GWRA-2020 National Compilation guidelines. Groundwater extraction is considered safe, and categorized as “Safe” in the GW block classification. Water quality contains fluoride but lacks salinity or arsenic. The site enjoys substantial groundwater availability suitable for future use. Annual rainfall is 1219.20 mm, with a water stress ratio emphasizing India’s extreme water stress status.

\*We do not withdraw any groundwater for any operations.



### Addressing Climate Change Impacts and Water Resilience in Our Communities

The impact of climate change is already being felt worldwide, affecting water availability, and leading to severe droughts and floods. As a result, our facilities have also faced increased exposure to heavy rainfall and cyclones in recent years. To address this, we have conducted extensive flood studies for our BALCO and Jharsuguda sites and have developed plans to mitigate and respond to potential extreme rainfall and flash flood events.

Recognising the vital importance of water to the communities in the areas where we operate, we not only strive to improve our water usage efficiency but also collaborate with stakeholders, including local district administrations, to ensure that our communities have access to safe drinking water. Responsible water management is crucial for maintaining the trust of these local communities. We regularly conduct programs to enhance the skills of our team and community members in managing water at the watershed level.

In consultation with communities, panchayats, NGOs, and government bodies, we are planning and implementing an Integrated Watershed Management Program for our operational areas. This initiative aims to not only ensure water availability but also strengthen the community's resilience in the face of both excessive rainfall and drought conditions.

### Integrated Water Stewardship and Community Engagement

At Vedanta Aluminium, we understand the critical importance of water, considering its social, economic, environmental, and cultural significance, especially in the context of growing global concerns about water scarcity. We are committed to complying with relevant national, regional, and local water regulations (refer to our water policy for more details).

Our water conservation initiatives are aimed at optimizing water usage across our operations and increasing the proportion of water that is recycled and reused. Our Water Management Standard aligns with the principles of the International Council on Mining and Metals (ICMM) regarding water stewardship. This standard involves structured tracking and monitoring of local water availability and estimation of future changes.

We regularly monitor water levels in the reservoirs from which we source water for our operations, utilizing the Central and State Water Resources Information System. This helps us estimate water availability for current and future demand by assessing changes in water levels.

We stay vigilant regarding existing and potential regulatory changes at both national and local levels. We have conducted sensitivity analyses to evaluate how changes in water tariffs might impact the profitability of our operations. Additionally, we've conducted scenario analysis to assess the potential consequences of alterations in water availability from the source, including stakeholder conflicts that may arise.

Recognising that water is a shared resource, we collaborate closely with our stakeholders, primarily local communities, government entities, and regulatory bodies. This collaboration allows us to understand their expectations and anticipate any future water-related issues and their associated business implications. We leverage these opportunities to reassure our stakeholders of our commitment to safeguarding their interests and involving them in our integrated watershed management initiatives.

To this end, we have initiated various community development programs aligned with our shared vision of sustainable development. Vedanta Aluminium focuses on integrating the interests of water users, communities, and other stakeholders involved in water resource management, ensuring well-rounded decisions that help us avoid water-related conflicts with our stakeholders.

We maintain transparent communication with all our stakeholders, keeping them informed about the progress and performance of our water conservation and management efforts. Additionally, we actively support local administration in providing safe drinking water and sanitation facilities to villages around our plants, benefiting over 2,30,000 people.

Furthermore, we promote and facilitate the adoption of sustainable agricultural practices in neighbouring communities. This includes effective water management, drip irrigation technology, rainwater harvesting, climate-resilient seeds, and crops, among other initiatives. These programs strengthen our relationships with stakeholders, enhance our understanding of their water-related concerns, and help them access improved agricultural practices for higher yields.

### Effective Grievance Management for Stakeholder Concerns

We operate a grievance management system that involves the collection and monitoring of grievances concerning a wide range of issues, including conflicts with stakeholders and water availability concerns. These grievances are gathered through multiple channels, such as at our plant entrances, anonymous phone calls, or email submissions. Depending on the nature of the grievance, a dedicated committee is established to facilitate prompt and efficient conflict resolution.

Water is a material issue that significantly influences our operations and has far-reaching effects on our products, services, and supply chain. More than 50% of our business activities are assessed in relation to

water-related matters. This has a significant impact on external stakeholders, particularly the environment. We acknowledge that the impact of water on our operations can be both positive and negative.

### Our Water Performance

We source our water from licensed local surface water supplies. We take pride in our long-standing commitment to not discharge any wastewater beyond our plant boundaries; instead, we recycle all wastewater within our facility. We are fully dedicated to maintaining this zero-water-discharge legacy. The graphs below illustrate the freshwater usage and the proportion of water that is recycled and reused within our Aluminium Business and the broader Aluminium Sector in our operating portfolio.

### Our Water Conservation Initiatives



#### Efficiency Enhancement:

- Improved Return Condensate to 93% and used Alkaline Cooling Water in Vacuum Pumps (Lanjigarh).
- Regulated RPM & Pressure of FRW Water Pumps (Lanjigarh).
- Installed Float Valve in Sintex Tank and boosted Utility Cooling Tower Efficiency (Jharsuguda and Lanjigarh).



#### Infrastructure Maintenance:

- Installed Overhead Fireline and RO Water Pipelines (BALCO).
- Proactively addressed leakages while increasing ETP Inlet/Discharge Water (BALCO).



#### Water Conservation:

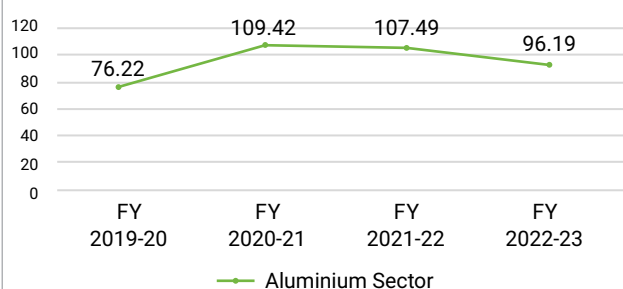
- Improved Cooling Tower COC to 5 (Lanjigarh).
- Reduced Above-ground Fire Water Line Leakage and Resolved Fire Tank Leakage (Jharsuguda).
- Installed RO System and implemented Rainwater Harvesting, Day Installation in BO/GAP (Jharsuguda).
- Utilized Recycling for CW Blowdown and ETP Water while raising COC in CW Water (Jharsuguda).

### Achieved Water Conservation of

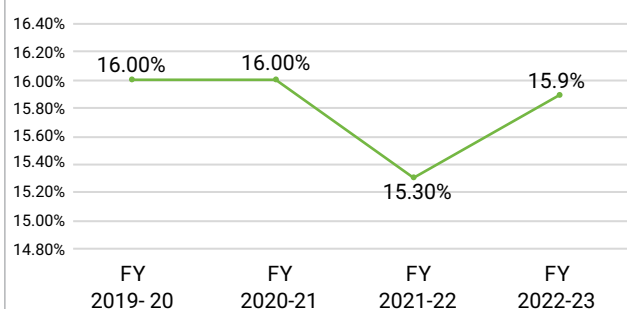
<b>8,765 m<sup>3</sup></b> at Lanjigarh	<b>13,87,058 m<sup>3</sup></b> at Jharsuguda	<b>1,11,269.6 m<sup>3</sup></b> at BALCO
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Total impact of water saving initiatives is 1.5 million m<sup>3</sup>.

#### Freshwater withdrawal across our business units: Aluminium Sector (million m<sup>3</sup>)



#### Percentage of water recycled:



#### Our recycling initiatives and milestones in FY 2022-23

In FY 2022-23, Vedanta Aluminium Business achieved a significant milestone by recycling a remarkable 14.46 billion litres of water. We did various performance evaluations and monitoring of our treatment units. This aligns perfectly with our commitment to becoming Net Water Positive within the decade, wherein we concentrate on leveraging advanced technologies and fostering community engagement to drive water sustainability efforts, all in accordance with the UN Sustainable Development Goal for Clean Water and Sanitation.

In anticipation of World Water Day, we also orchestrated a range of water conservation initiatives. These included activities like desilting and restoration efforts in multiple districts, extensive awareness campaigns, and active community participation. At Vedanta Aluminium, we adhere to a comprehensive four-pronged approach to ensure water sustainability. This approach encompasses robust monitoring, maximising water reutilisation, creating a positive water footprint, and fostering collaborative partnerships with local communities to ensure responsible water management and conservation.

### Our Water Impact

#### Water KPIs and Performance

##### Sustainability Strategy goals | Water positive by 2030

##### Summary of progress in 2023



Freshwater withdrawal is 96.19 million m<sup>3</sup> compared to 107.49 million m<sup>3</sup> last year for Aluminium business.

##### Target



2023

Our net freshwater withdrawal target was 111 million m<sup>3</sup> if we had considered business as usual scenario. The water savings is due to reduction in specific water consumption

2030

The Company's goal is to become water positive by 2030. We are aligned to the vision and intend to support in the materialisation of the goal by growing our business but not the water footprint over FY 2021 baseline.

### Jharsuguda smelter: A national benchmark in water efficiency

Vedanta Aluminium's Smelter-1 located in 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.

We achieved this milestone through a variety of effective actions, including:

01

The implementation of a stormwater utilization system to enhance the use of recycled water.

- **Benefits realized:** Reduced freshwater consumption.
- **Impact:** A reduction of 0.03 cubic meters per metric ton ( $\text{m}^3/\text{MT}$ ). ETP sandbed replacement to increase ETP efficiency.
  - **Benefits achieved:** Increase in recycling water percentage.
  - **Impact:** 0.02  $\text{m}^3/\text{MT}$

02

Revamping of dual media filter for STP

- **Impact:** 0.01  $\text{m}^3/\text{MT}$

The cumulative savings are to the tune of 0.06  $\text{m}^3/\text{MT}$  of water and has positively contributed to the overall water efficiency of the smelter.

We undertake the restoration of several local water bodies around our business units to rejuvenate the aquatic life and support the livelihoods of the local communities every year. We work with water management professionals, employee volunteers and local communities to carry out cleaning and deepening of the ponds for efficient harvesting of rainwater, on an annual basis. So far Vedanta Aluminium has restored over 40 local water bodies in areas of Odisha and Chhattisgarh, ensuring a year-round water supply for homes, farming, and livestock.



Baghiamal pond, Jharsuguda (Before)



Baghiamal pond, Jharsuguda (After)



Bhagipali pond, Jharsuguda (Before)



Bhagipali pond, Jharsuguda (After)



## Waste Management

In an era where environmental consciousness and sustainability have become integral facets of responsible corporate governance, the waste management practices of an aluminium company take on paramount significance. This dynamic sector, intrinsic to numerous industrial and consumer applications, generates a substantial volume of waste as a natural byproduct of its operations. Therefore, we have integrated waste management practices that not only reflect the commitment of the company to minimising our ecological footprint but also underscore our dedication to safeguarding the environment, conserving resources, and ensuring the well-being of surrounding communities.

### Management Approach

The Vedanta Sustainability Framework incorporates the Resource Use and Waste Management Standard, which serves as our guiding blueprint for the effective and safe handling of waste materials. This standard delineates a structured hierarchy of waste management practices. It commences with the proactive exploration of opportunities to prevent and reduce waste generation. Subsequently, it emphasizes the retrieval and recycling of waste materials, either within our facilities or through strategic partnerships with authorized third-party entities. As a last resort, the standard permits waste disposal in authorized landfills or through the process of incineration.

Our waste materials are systematically categorized into two primary groups: hazardous and non-hazardous, adhering to definitions established by the company and

relevant regulatory authorities. Within the context of our industry, we classify specific materials, such as cathode residue, dross, shot blast dust, ladle cleaning residue, spent pot lining, as industrial hazardous waste among others. Our approach to these hazardous waste materials is characterized by a meticulous collection and storage process, conducted in full compliance with regulatory requirements. Subsequently, we engage authorized third parties for the responsible recycling or safe disposal of these materials. Our overarching strategic objective is aligned with our unwavering commitment to sustainability, with a primary focus on eliminating the practices of landfilling and incineration for these waste materials, replacing them with intensified efforts towards reuse and recycling by the fiscal year 2030. In addition to addressing hazardous waste, we also deal with the management of substantial volumes of low-toxicity by-products, including mine overburden, mineral slag, bauxite residue, lime grit, and ash originating from our thermal power plants. We are aware of the potential environmental and safety hazards these waste streams pose to our host communities. Consequently, the management of these waste materials holds significant importance. They are diligently stored within authorized storage facilities, specifically designed for this purpose, before being channelled into circular initiatives. Our ultimate objective is to minimise their environmental impact while maximising their value within the framework of the circular economy. The total waste disposal target for FY 2023 is 51.6 million ton

### Waste to Wealth: Operating Solid Liquid Waste Management units and supplying fly ash to support industries

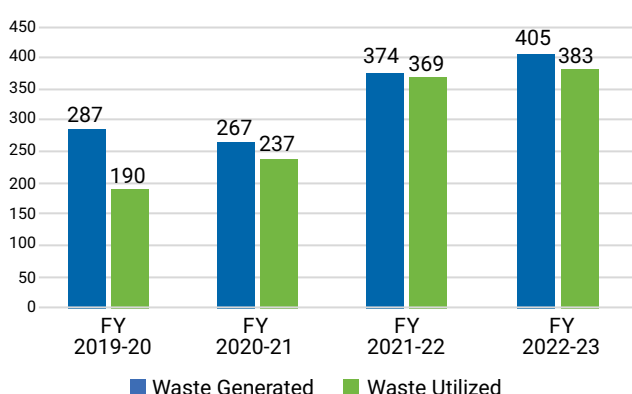


### Waste Recycled and Disposed for Vedanta Aluminium

Parameter (in metric tonne )	FY 2023	FY 2022	FY 2021	FY 2020
Total waste recycled/ reused	2,55,97,693	1,47,44,632	1,11,12,242	97,72,685
Total waste disposed	5,19,62,196	5,16,32,502	5,00,70,454	5,17,50,283
Landfill	8,649	8,699	6,811	8,220
Incineration with energy recovery	2	-	-	-
Incineration without energy recovery	39,019	235	174	165
Waste otherwise disposed (stored at site, coprocessing)	5,19,14,525	5,16,23,568	5,00,63,469	5,17,41,898

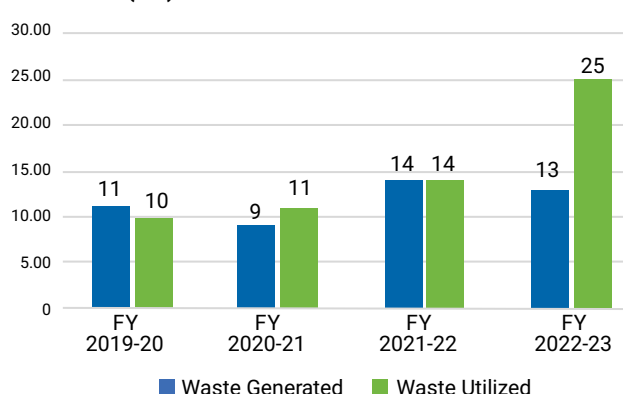
FY 2022-23	Hazardous waste	Solid waste (Fly Ash, Red Mud)	Total Waste
Total waste recycled/ reused	3,83,747	2,52,13,945	2,55,97,693
Total waste disposed	2,95,273	5,16,66,922	5,19,62,195
Landfill	8,649	0	8,649
Incineration with energy recovery	2	0	2
Incineration without energy recovery	39,006	11	39,018
Waste otherwise disposed (stored at site/ coprocessing )	2,47,614	5,16,66,910	5,19,14,525

### Hazardous Waste Generation (KT) for Aluminium Sector



In FY 2023, our company generated approximately 405 kilotons (KT) of net hazardous waste, and an impressive 61% of this waste has been successfully recycled by our operations (including our opening stock). Furthermore, our activities yielded 12.63 million metric tons (MT) of high-volume, low-toxicity waste, and it is noteworthy that we

### Solid Waste (Fly Ash, Red Mud) Waste Generation and Utilization (KT) for Aluminium Sector



achieved a 200% utilization rate for these waste materials. It is important to highlight that in some fiscal years, our waste utilization surpasses the waste generated, and this is attributed to the effective utilization of legacy waste that had been stored from previous periods.



**Material Recovery Facility for non hazardous waste segregation at Vedanta Jharsuguda**

Embracing a forward-thinking approach to environmental sustainability, our company has embarked on an innovative Integrated Waste Management Pilot Project, specifically designed for managing non-hazardous waste streams. Vedanta Aluminium has introduced a cutting-edge Material Recovery Facility at its Jharsuguda site, a pivotal move to promote the circular economy concept. This innovative facility is designed to efficiently handle and sustainably manage the waste materials generated at the Jharsuguda plant, rechanneling them into new and productive applications.

In the month of March 2023 alone, this facility accomplished a remarkable feat by converting 27,828 kilograms, or nearly 28 tonnes, of both dry and wet waste into various valuable materials. These recyclable materials, salvaged from the Material Recovery Facility, find purpose within the plant's daily operations. Examples include bio-compost and briquettes used for horticultural activities. Any non-recyclable materials generated from this facility are dispatched to cement industries for co-processing, paving the way for fresh opportunities in creating a circular economy ecosystem within the domestic manufacturing landscape.

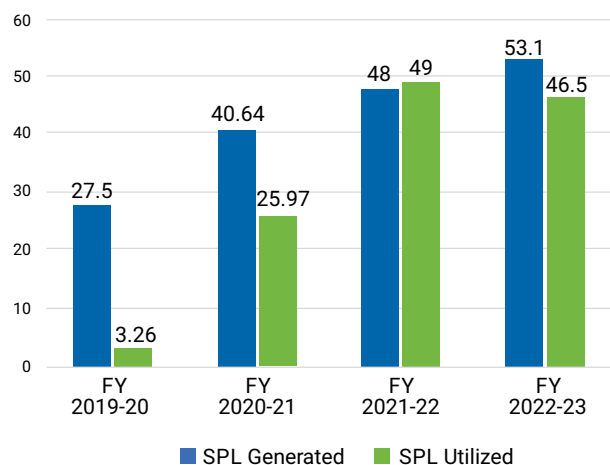
### Spent Pot Lining (SPL) Management

SPL is a waste material generated from the electrolytic reduction of alumina to produce aluminium metal in aluminium smelters. SPL contains hazardous materials, such as fluoride compounds, and must be managed carefully to prevent environmental contamination.

Management for Spent Pot Lining involves:

- Proper storage and containment to prevent leaching of hazardous substances into soil and groundwater.
- Exploration of recycling and recovery options for valuable components of SPL, such as carbon and metals.
- Compliance with regulatory requirements for SPL disposal, which may involve disposal in lined landfills or specialized treatment.

### SPL Generation & Utilization (KT)



In this reporting period, we generated 53.1 KT of SPL and dispatched 46.5 KT to government authorized recyclers for material and energy recovery. Also, this year we were able to recover 88% of the SPL. We have identified third-party recyclers for performing detoxification of SPL's carbon portion, followed by supplying it to cement plants for energy recovery as per the Standard Operating Procedures laid down by the Central Pollution Control Board (CPCB), Government of India. Implementation of this model has proved to be highly successful, allowing our smelters at Jharsuguda and BALCO to dispose more than 15,000 metric tonnes of SPL stored in the plant premises to these authorized recyclers.

### Tailings Management

At VAL, our commitment to responsible tailings management is unwavering. We have a comprehensive policy aligned with the Global Industry Standard on Tailings Management (GISTM), which places the utmost importance on employee safety, community well-being, and environmental preservation. To reinforce this commitment, we adhere to national regulations and global best practices, minimize environmental and safety risks through responsible site selection and operations, and ensure safety of our Tailings Management Facilities (TMF) through robust monitoring systems and contingency planning. We prioritize transparency and stakeholder engagement, collaborate with local communities, and regularly review our performance to share best practices and continuously improve.

Our proactive approach to responsible tailings management extends to change management, emergency preparedness, and avoiding environmentally harmful practices like riverine and submarine tailings disposals. We maintain a strong focus on safety, environmental responsibility, and transparency throughout the entire lifecycle of our TMFs. Our dedication to long-term recovery planning in case of a facility failure underscores our commitment to safeguarding both our operations and the well-being of the communities we serve.

Vedanta Aluminium currently manages a total of 15 Tailings Management Facilities (TMFs) within its

operations. Among these facilities, 6 are currently inactive, and 0 has been planned. Our 8 facilities are at high-risk potential (inclusive of inactive facilities). Tailings management for Vedanta Aluminium involves the responsible handling and disposal of waste materials generated during the production process. These waste materials typically include bauxite residue (also known as red mud), and ash. Here's what tailings management means for each of these waste materials:

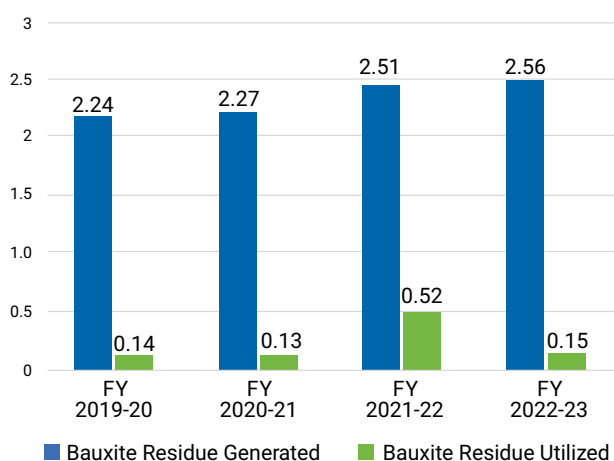
### Bauxite Residue Management

Bauxite residue is a low-toxic and high-volume mineral waste with high alkalinity, because of which its handling poses significant risk. Management for bauxite residue involves treating and disposing of this waste in an environmentally responsible manner.

Key considerations include:

- Reducing the alkalinity and toxicity of the residue to minimise environmental impact.
- Utilizing techniques such as sedimentation and drying, making it easier to handle and potentially reuse.
- Exploring beneficial reuse options, such as using red mud in construction materials or as a source of valuable minerals.

**Bauxite Residue Generation & Utilization (million MT)**





At Vedanta Aluminium we are cognizant of our responsibility towards implementation of robust control systems to manage waste responsibly. We have employed several practices such as dry stacking technology of filtered tailings at our Alumina Refinery in Lanjigarh. In addition, each of our Bauxite Residue Disposal Area (BRDA) and ash dyke facilities has an Emergency Response Preparedness Plan that outlines the measures to be implemented in the unfortunate event of any

operational failure of these dams. To comply with the current regulations as well as the company standards on tailing management, we carry out regular maintenance and inspection of our tailing storage facilities. We also deploy the services of independent industry experts to evaluate the performance of our tailing dams and guide us on the improvements in design and operation of the dams. Practices undertaken to ensure safe management of the dams include:



Tailing and ash dyke analysis



Training of our employees



Internal and external audit of the storage facilities' performance



Daily/weekly checks

In addition to this, we collaborate with academia and industrial bodies for our R&D and technical recommendations to enhance our waste management systems. We are working with some of India's best technical institutes such as IIT Kharagpur, IIT Bhubaneswar, advisory bodies like NITI Aayog, and industrial organisations both in India and abroad. Our combined efforts including value creation projects like extraction of iron oxide, rare earth metals and alumina from bauxite residue etc. expedite our commitment to minimise waste.

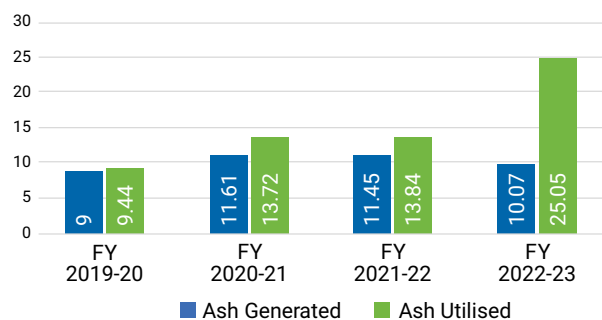
### Ash Management

Ash is one of the major low-toxicity high-volume wastes for Vedanta Aluminium. Ash can be generated from various processes within an aluminium plant, such as the combustion of carbon anodes or other materials. Proper ash management is necessary to prevent pollution and minimise environmental impact.

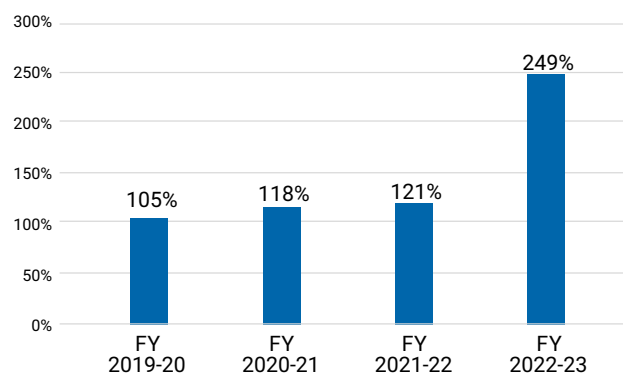
Tailings management for ash typically includes:

- Proper collection and containment of ash to prevent dispersion and contamination of the environment.
- Potential recycling or reuse options for certain ash components, such as metals or carbon.
- Compliance with regulations governing ash disposal and emissions control.

### Ash Generation & Utilization (million MT)



### Percentage of Ash Utilized



In this reporting period, the total ash produced at our plants amounted to 10.07 million MT. We have utilized 249% of the generated ash.

Disposal of fly ash as well as bottom ash has many potential environmental and health risks. In order to avoid any such negative impacts, we have undertaken several initiatives at our ash management facilities. These include development of soil and vegetative cover, etc. Fly-ash, typically considered an unavoidable and unusable residue from the aluminium production process, has become an important area of exploration for us. Through our research, we identified its potential application in road construction. Consequently, we have supplied over 0.6 lakh tonnes of fly-ash for the construction of roads and highways as part of the Bharatmala Pariyojana project.

### Materials management and circularity

Circular economy principles are at the core of Vedanta Aluminium's operations, with a primary focus on optimizing resource utilization and waste reduction. We've undertaken a concerted effort to improve our processes, reducing raw material consumption and energy usage significantly. Over time, we've intensified our commitment to recycling and recovery programs, enabling us to reuse scrap aluminium and other materials, ultimately reducing our reliance on virgin resources. We've also initiated various campaigns to recover and redirect these materials, channelling them into value-added products in different industries, thus lowering their primary material requirements.

Through our partnership with Runaya, a circular economy startup, we've achieved a remarkable aluminium recovery rate of up to 90% from dross. This partnership enables efficient extraction of non-metallic components from dross, which are subsequently transformed into slag conditioners for the steel industry, eliminating waste landfilling.

Furthermore, we've taken steps to provide bauxite residue from our Lanjigarh plant for cement manufacturing. Bauxite residue contains substantial amounts of iron oxide and alumina, making it an attractive candidate for clinker production in cement industries, serving as a laterite substitute. Additionally, the residual caustic soda in red mud helps control Sulphur emissions when applied directly, making it a suitable choice for this purpose. In a partnership with ACC Cement, we will dispatch 25 rakes of bauxite residue to cement industries across India.

### Partnering the cement industry's move towards greater circularity

Low carbon cement is spearheading a green revolution within the cement industry, offering all the advantages of traditional cement without the associated high carbon emissions. At Vedanta, we are actively contributing to this environmentally friendly transformation by championing circularity in allied industries.

In FY 2022-23, Vedanta Aluminium forged a strategic partnership with Dalmia Cements to supply industrial waste materials like fly ash and spent pot lining. Under this collaboration, approximately 20 rakes of fly ash generated at our thermal power plants in Jharsuguda will be delivered every month for a duration of five years. Additionally, we will supply spent pot lining, obtained from electrolytic pot de-lining process, as an alternative fuel source for cement industries engaged in waste co-processing.

These inputs will find valuable use in Dalmia Cement's manufacturing facilities located in Odisha, Jharkhand, Meghalaya, and Assam, creating a sustainable manufacturing cycle. This approach significantly diminishes carbon footprints by reducing the demand for natural resources, minerals, and fuel consumption, resulting in cost savings.

This initiative underscores Vedanta's commitment to its motto of 'Transforming For Good.' We are actively identifying synergies and translating them into actions that contribute to creating a better and more sustainable environment for all.

Overall, Vedanta Aluminium recognises the paramount importance of effective waste management for waste materials. It's a crucial aspect of our commitment to minimising our environmental impact, adhering to environmental regulations, and unlocking value through recycling and reusing specific components. Vedanta Aluminium in collaboration with our stakeholders aims to establish comprehensive waste management strategies and systems to address these challenges and advance sustainability in our operations.



## Biodiversity and Ecosystem

In a 2022 article by the World Economic Forum titled 'Biodiversity Loss and the Threat of National Insolvency', an assessment was carried out on the credit ratings of 26 nations across various scenarios. These scenarios included one aimed at "halting biodiversity loss" and another representing a "business as usual" scenario where ecosystems continue to degrade, resulting in a global loss of 46 million hectares of wilderness by 2030.

Additionally, the study explored a "tipping point" scenario marked by a 90% reduction in marine fishing, wild pollination, and tropical timber supplies. Should certain regions experience a "partial collapse of ecosystems" within this scenario, over half of the 26 nations could potentially face downgrades in their credit ratings.

These downgrades could lead to an annual increase of up to \$53 billion in interest payments on their debt, posing a substantial risk of sovereign debt default, akin to bankruptcy. In this scenario, nearly half of the countries studied could see their risk of bankruptcy rise by over 10%.

As global awareness of the importance of biodiversity and ecosystem services continues to grow, it is increasingly evident that there is a strong and inseparable connection between biodiversity and commercial enterprises. Recognising this, the Taskforce on Nature-related Financial Disclosures (TNFD) has introduced the TNFD framework, tailored to assist businesses in gaining a comprehensive understanding of the biodiversity-related risks and opportunities they face.

### Management Approach

The mining and metal industry's influence on biodiversity and ecosystem services stands out as significantly greater when compared to other sectors. This heightened impact arises from the distinct characteristics, scale, and proximity of mining and metal operations, often located near ecologically diverse regions. Biodiversity conservation represents a paramount concern within our industry.

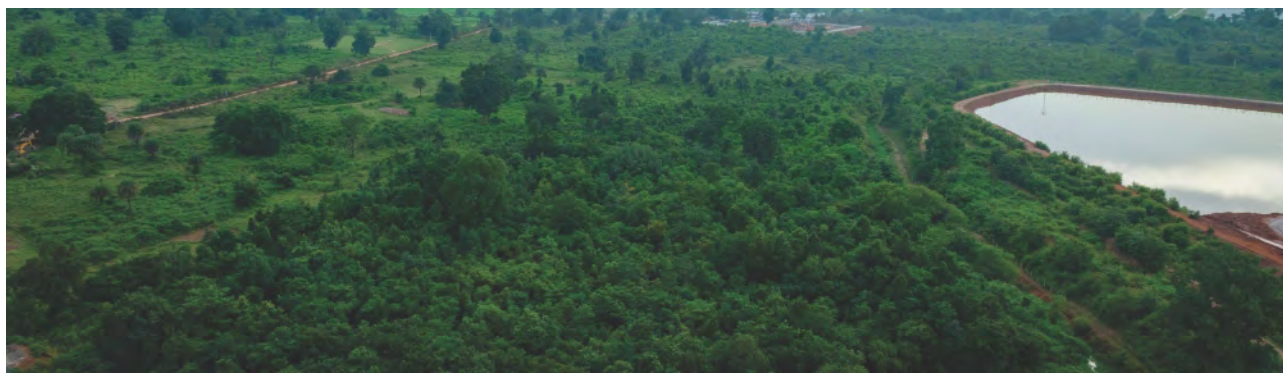
In line with our commitment to Zero Harm, we wholeheartedly focus on safeguarding biodiversity in the areas where we conduct operations and actively work to mitigate or rehabilitate any adverse effects stemming from our activities. Our Biodiversity Policy at Vedanta Aluminium solidifies our dedication by pledging not to engage in exploration or mining activities in World Heritage sites and by showing utmost respect for all legally designated protected areas, including those categorized under the International Union for Conservation of Nature (IUCN) as Ia, Ib, II, III, or IV. For further details please refer to our Biodiversity Policy.



Scan to view

Our Companywide Guidance Note on Biodiversity Management reinforces the Vedanta Biodiversity Management Technical Standard, which has been specifically designed to streamline the integration of biodiversity and ecosystem service management into the decision-making processes for both new and existing projects and operations.

We at Vedanta Aluminium are resolute in our dedication to the rejuvenation of biodiversity and ecosystems, guided by the principles of NO NET LOSS (NNL) and NET POSITIVE IMPACT (NPI) when it comes to preserving significant biodiversity value. We conduct these efforts in consultation with stakeholders as part of potential closure plans for our operations, should such plans ever come into effect. It's important to note that our smelter operations differ from mining in that they are designed to operate indefinitely without closure. The Aluminium Sector is dedicated to achieving NNL implementation by FY 2050 or even earlier, aligning with our business plan. Our commitment to biodiversity transcends our organisational boundaries, extending throughout our entire value chain. These principles are rigorously reviewed during the onboarding of new suppliers.



### Preserving Biodiversity in Odisha's Heartland

Nestled in Odisha, Vedanta Limited Lanjigarh finds itself surrounded by the natural beauty of the Kalahandi district, cradled between the Vamsadhara and Tel River basins. This diverse landscape encompasses plateaus, hills, and valleys, making it a treasure trove of biodiversity.

Our mission is clear: we're dedicated to achieving 'No Net Loss' (NNL) of biodiversity and working tirelessly towards a 'Net Positive Gain' (NPG) in biodiversity. Our vision is to harmonize our existence with all living beings, forging a shared future for all life.

In this region, we are particularly concerned about the Oriental Pied Hornbill, various Flycatcher species, Steppe Eagle, Indian Peafowl, Black-naped Oriole, Oriental Scops-owl, Pied Cuckoo, Common Blue Kingfisher, Common Quail, Wagtails, and Bee-eaters.

To nurture avian biodiversity, we've established an 'Avian Arena' within our Vedanta township. This garden, strategically chosen for its fruit-bearing trees like mango, guava, jackfruit, Indian gooseberry, and lychee, along with vibrant flowering species that attract insects and worms, now serves as a sustainable bird haven.

Our main objective was to provide safe shelter and reliable water sources for our avian friends. During the project's initial phase, we thoughtfully placed 6 bird boxes and 5 bird baths in the garden. Nesting boxes were carefully positioned in fruit trees, while the baths were conveniently situated at a lower height, maintaining safe water depths for the birds.

On May 22, 2022, on International Day for Biological Diversity, we proudly inaugurated the 'AVIAN ARENA.' This endeavour was made possible through the collective efforts of our dedicated Vedanta team and partners. With over 160 avian species, including both residents and migratory birds, we remain steadfast in providing a welcoming sanctuary for our feathered companions and expanding our support to accommodate even more species in the future.

Over the years, we have developed a robust framework for screening and assessing not only our own operations but also those of our supply chain partners, aligning them with various environmental and forest policies. We adhere rigorously to forest laws and policies, maintaining our commitment to restoring any lost value through

reforestation, ultimately leading to a no-deforestation approach. Our overarching commitment to Zero Harm, encompassing both people and the environment, acts as a powerful driving force behind our goals of achieving No Net Deforestation. This commitment reinforces our belief that it is an integral component of our broader biodiversity management efforts.

We, at Vedanta, are proud to be part of the World Economic Forum's 1 Trillion Tree (1t.org) movement. This global initiative is dedicated to conserving, restoring, and growing one trillion trees worldwide. It represents a nature-based solution to combat climate change by replenishing the world's trees. The campaign aligns with the WEF's commitment to accelerate nature-based solutions and supports the UN Decade on Ecosystem Restoration 2021-2030. As the first corporate entity from South Asia to join the 1T.org initiative at COP 27 in Egypt, the Company has made a pledge to grow 7 million trees by 2030 as our contribution to fighting climate change and we at Vedanta Aluminium are also a part of the commitment.

You can learn more about Vedanta's 7 Million Trees Pledge on 1t.org: <https://www.1t.org/pledges/growing-7-million-trees-for-creating-a-resilient-environment>

Additionally, we remain committed to rehabilitating any areas affected or disturbed by our operations while actively conserving biodiversity value.



**Green Commitment:** Sapling plantation, contributing to environmental sustainability



### Managing Biodiversity Risks

Biodiversity risks arise from degradation and disturbance of diverse ecosystems and are a concern for many stakeholders. As a natural resources company, we are committed to minimizing our biodiversity impact. Heightened environmental awareness regarding biodiversity conservation and pollution prevention can present challenges for us. These include potential disruptions to our materials, complexities in our supply chain, and associated economic risks. Given the significance of these risks, they are integrated into our overall risk management framework. This ensures a comprehensive and holistic approach is taken to identifying and addressing these potential risks across our operations. We also 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 global economic growth, we at Vedanta Aluminium recognize that we have an important responsibility to discharge. We aim to set benchmarks for accountable operations and strong governance. To achieve this, we have integrated various 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 draws 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 all our sites through a third party. The methodology aligns with evolving biodiversity and nature-related frameworks like Taskforce on Nature-related Financial Disclosures (TNFD) which requires 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,



#### Prepare:

This involves developing strategies and action plans to address nature-related issues

The UN Environment Programme's Integrated Biodiversity Assessment Tool (IBAT) or Species Threat Abatement and Restoration (STAR) metric was applied to conduct the risk assessments. It involved screening for risks and pinpointing priority sites where nature and business interact. Subsequently, we conducted site-specific assessments to identify sensitive habitats, important bird areas and key biodiversity hot spots. The results generated from these extensive risk screening activities and assessments are then used for updating Biodiversity Management Plans (BMPs) for all our main sites.

### STAGE 1: Biodiversity Risk Screening

Biodiversity risk screening identifies sensitive biodiverse areas in core areas and buffer areas that may be directly or indirectly be affected by our operations. These impacts typically fall under two categories: habitat-related or species-related. Our risk assessment follows a location-specific approach.

### STAGE 2: Biodiversity Risk Assessment

The process of identifying risks and impacts is crucial for evaluating the potential effects of a proposed project's construction and operations. This aligns with regulatory requirements such as the EIA Notification 2006, and international standard requirements like Environmental and Social Impact Assessments, Biodiversity Management Plans, Critical Habitat Studies. Additionally, during this stage, we assess Key Biodiversity Areas (KBA) and Protected Areas (PA) using IBAT and secondary literature. Stakeholder consultations are also extensively conducted to understand localized insights and to account for unique socio-economic, geographic, or climatic dynamics that standardized studies might miss.



### Post-evaluation outcomes and actions:

Recently we have completed a comprehensive assessment of the impact of our operations on biodiversity across all our sites through a third party.

- For sites in close proximity to biodiversity rich areas, three further evaluation actions occur: assessment of current biodiversity status, examination of biodiversity interaction with project operations, and evaluation of the existing biodiversity conservation approach. This leads to a pragmatic understanding of the as-is conditions, helping formulate the path forward. Accordingly, additional biodiversity management practices and

measures necessary to achieve our NNL goal are determined, designed and subsequently, deployed. in cases where operations could potentially harm ecosystems, a review of priority ecosystem impact is undertaken. These include:

1. Ecosystems that are at higher risk of being affected by our daily operations, potentially leading to adverse consequences for nearby communities.
2. Ecosystems that our operations rely upon. Moreover, an assessment of ecosystem dependence and its impacts may be carried out to pinpoint crucial ecosystem services within the region.

### Biodiversity Risks identified

01

Loss of modified habitats due to construction of infrastructure  
(Medium)

02

Due to emissions from plant and movement of vehicles  
(Low)

03

Introduction of invasive species from upstream transport  
(Low)

04

Loss of terrestrial habitat and movement corridor for these species  
(Low)



## Mitigation Hierarchy

### Avoid

- Zero liquid discharge in Water Management policy to prevent pollution of water bodies
- No exploration or mining in World Heritage sites and respect all legally designated protected areas, including International Union for Conservation of Nature (IUCN) category Ia, Ib, II, III or IV protected areas.
- Technical Standard aims in place to facilitate the integration of biodiversity and ecosystem service management into the decision-making processes for new and existing projects and/or operations.
- SOPs to prevent introduction of invasive species during movement of vehicles and goods

### Minimize

- EMP to minimize air, noise, water, soil pollution
- Greenbelt development to attenuate pollutants
- Regular review compliance to Biodiversity Management Plans for all our sites

### Restore

- Plantation of native and endangered species
- Removal of invasive species
- Restoration of water bodies
- Committed to rehabilitate any affected / disturbed area due to our operation and conserve biodiversity value.

### Offset

- Expansion of vegetative cover in barren/degraded lands
- Development of community land with medicinal plantation towards enhancing local biodiversity, in consultation with community
- Plantation of native species as a part of the progressive.

### 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



**Employee volunteerism:** Collaborating with communities to restore local waterbodies



### STAGE 3: Our Biodiversity Management Plan (BMP)

As part of our commitment to No Net Loss (NNL) of biodiversity, we have updated our Biodiversity Management Plans (BMPs) to specifically identify risks to biodiversity based on their impact. To realize this goal, each of our operations has collaborated with recognised experts in the field of biodiversity management, working closely with stakeholders to develop their respective BMPs. We consistently evaluate compliance with these plans across all our sites and remain dedicated to their full implementation by the year 2030.






As an integral part of our initiative, all our operations have conducted thorough assessments of biodiversity,

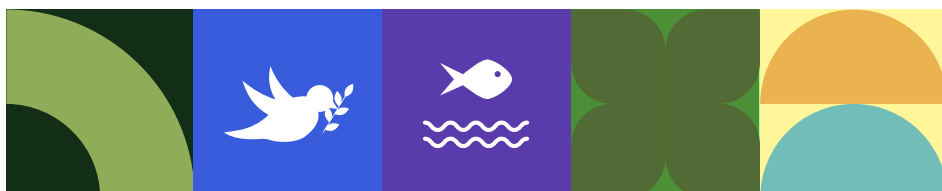
aiming to establish baseline values and evaluate the potential impact of our activities on biodiversity within our operational regions. These assessments encompass a wide range of factors, including species, habitats, biodiversity, and ecosystem services. It's worth noting that our aluminium smelter operations in Jharsuguda and BALCO are situated in habitats that have undergone modifications, resulting in minimal impact on biodiversity value. Furthermore, our alumina refinery in Lanjigarh was developed as a greenfield project and is not located in close proximity to any areas deemed critically biodiverse. A table below provides a listing of species identified by the International Union for Conservation of Nature (IUCN) in the vicinity of our operations.

Our Target Metrics ESG KPIs	Summary of progress 2023	Target 2025	Target 2030
BMP recommendation closure rate to achieve the goal of No Net Loss (NNL)	38% of the BMP actions have been closed	69% of the BMP actions to be closed	100% of our BMP to be closed
Habitat restoration	1,028 hectares	1,274 hectares	1,315 hectares

### IUCN species around our business operations

The table below presents the number of species found in areas affected by the organisation's activities, as classified by their extinction risk level on both the IUCN Red List and the national conservation list.

 <b>Critically Endangered</b>	 <b>Endangered</b>	 <b>Vulnerable</b>	 <b>Near threatened</b>	 <b>Least Concern</b>
NIL	7 endangered species: Golden-yellow Eulophia ( <i>Eulophia ochreata</i> ); Soft Bollygum ( <i>Litsea glutinosa</i> ); Indian Elephant; Indian Pangolin ( <i>Manis crassicaudata</i> ); Bengal Tiger; <i>Chitra indica</i> ; <i>Elephas maximus</i>	9 vulnerable species: Hill Turmeric ( <i>Curcuma pseudomontana</i> ); East Indian Kino ( <i>Pterocarpus marsupium</i> ); Indian Wild Dog ( <i>Cuon alpinus</i> ); Indian Sloth Bear; Smooth-coated Indian Otter ( <i>Lutrogale perspicillata</i> ); Gaur ( <i>Bos gaurus</i> ); Four-horned antelope; <i>Nilssonia gangeticus</i> ; <i>Chloroxylon Swietenia</i>	4 near threatened species: Pied Hornbill ( <i>Anthracoceros coronatus</i> ); Indian Leopard ( <i>Panthera pardus fusca</i> ); Striped Hyena ( <i>Hyena hyena</i> ); <i>Panthera pardus</i>	113 least concern species: <i>Cyathocline purpurea</i> ; <i>Nymphaea rubra</i> ; <i>Zingiber cernuum</i> ; Madras Tree Shrew; Indian Rhesus Monkey; <i>Varanus flavescens</i> ; <i>Varanus bengalensis</i> and many more





## Butterfly Park

Within the premises of Jharsuguda, Odisha, we have established a vibrant new Butterfly Park. This remarkable park boasts more than 100 carefully selected plant species, specifically chosen to attract and nurture over 30 rare and exquisite butterfly species, including the Common Mormon, Zebra Blue, and Danaid Eggfly. It provides a nurturing habitat that plays a crucial role in fostering a thriving ecosystem for local flora and fauna, encompassing rare flowering plants, birds, bees, and more. Under our #GreenHearts campaign, we are actively creating opportunities to nurture biodiversity in Jharsuguda, Odisha, through various environmental initiatives, such as this park.



**Butterfly Oasis:** Conservation at its best, a butterfly park at our township

Particulars	Number of sites	Area (Hectares)		
		JSG	BALCO	LNJ
a) Overall				
Total number of sites and the total area used for operational activities	3	834.23	1,099.98	833.31
b) Assessment				
Biodiversity impact assessments conducted for sites used for operational activities in the past five years	3	834.23	1,099.98	833.31
c) Exposure				
Sites assessed that are in close proximity to critical biodiversity, and total area of these sites	3	0	0	0
d) Management plans				
Of those sites in close proximity to critical biodiversity, sites that have a biodiversity management plan, and area covered by these biodiversity management plans	3	0	0	0

### STAGE 4: Implementation and monitoring

We develop site-specific customized protocols for managing biodiversity and ecosystem services, which continually evolves as we assess and adapt existing Best Management Practices (BMP) and procedures. These protocols are aligned with global best practices and are guided by our No Net Loss commitment, ensuring long term consistency in neutralizing net impact. Each Vedanta site develops performance indicators based on corporate

and legal requirements, referencing the GRI Mining and Metals Performance Indicators. 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.



**Business Unit**  
Aluminium



**Area of Biodiversity Value**  
Niyamgiri, Khambesi



**Area (Ha)**  
833

### Land Rehabilitation and Reclamation

Vedanta Aluminium currently oversees three mining operations that are in a state of care and maintenance. In the case of our Chotia coal mine, the mined-out areas have been replenished with ash generated from our operations. Simultaneously, the mined-out regions of our bauxite mines at Mainpat and Kawardha are undergoing concurrent backfilling with overburden. This approach allows us to utilize the high-volume, low-toxicity waste produced during our operations for effective mine management.

In our endeavour towards progressive rehabilitation of the mined-out areas of our bauxite mines, we have planted more than 2.5 million saplings of native species (refer to the table below). Additionally, we have implemented water storage and ground recharging structures to safeguard and

preserve biodiversity in these mined-out areas, offering support to aquatic and avian life. Consequently, a diverse range of local and migratory bird species, mammals, reptiles, amphibians, and even butterflies can now be observed in our mining areas.

To mitigate the risk of surface run-off, particularly during the monsoon season, we have constructed garland drains, check-dams along the mines' peripheries, and diversion drains ahead of the mine face. All activities related to biodiversity conservation, including tree plantation and the construction and maintenance of water ponds, reservoirs, and check-dams, are carried out in consultation with our local stakeholders. Our rehabilitation efforts align with our mine closure plan, and we are currently overseeing three of our non-operational mines while monitoring the increase in biodiversity values within these areas.

Parameter	Chotia Mines	Kawardha Mines	Mainpat Mines	Cumulative
	(In Hectare)	(In Hectare)	(In Hectare)	(In Hectares)
TOTAL MINING LEASE AREA	1,179.82	626.11	639.16	2,445.11
Total Mining Area	312.82	387.41	393.63	1,093.86
Total Land reclaimed	288.79	371.4	367.84	1,028.03
Total land rehabilitated	279.24	371.4	350.5	1,001.14
Total area covered by water charge	21.12	5.2	2.15	28.47

We have made significant commitments to strengthen our initiatives for biodiversity conservation in Odisha and Chhattisgarh, in alignment with our sustainable development agenda. This initiative coincides with the observance of the International Day for Biological Diversity. We are also actively involved in various conservation projects aimed at protecting indigenous bird species, which include the establishment of birdhouses, artificial nests, and bird baths within its industrial facilities and residential areas. Moreover, Vedanta Aluminium's Business Units are in the process of creating fruit orchards, cultivating gardens with medicinal plants, rejuvenating butterfly parks, and implementing several other biodiversity-focused initiatives. We also carry out an annual cleaning of local water bodies and community ponds, with active participation from employee volunteers.

The regions surrounding Vedanta Aluminium's operations in Odisha and Chhattisgarh are known for their diverse

biodiversity, encompassing more than 380 fauna and 940 floral species. These areas provide habitat for a wide range of native and migratory birds, reptiles, mammals, amphibians, macrophytes, medicinal plants, and other forms of life. Vedanta Aluminium's dedication to biodiversity conservation aligns seamlessly with its comprehensive strategy for Environmental, Social, and Governance (ESG) excellence in sustainable development, which includes initiatives related to water conservation, waste management, air quality control, and climate action. The company's remarkable efforts have earned recognition, exemplified by its Bodai Daldali bauxite mine in Chhattisgarh being ranked among the top 6 mines globally for sustainability practices by the Responsible Mining Index Foundation in 2019. This recognition underscores Vedanta Aluminium's unwavering commitment to nurturing biodiversity and promoting responsible mining practices.



As one of the world's leading aluminium producers, we take great pride and a strong sense of responsibility towards aligning our operations to the Triple Bottom Line principle of sustainable development, encompassing the 3Ps – People, Planet, and Prosperity – to ensure a holistic and balanced approach to our business practices

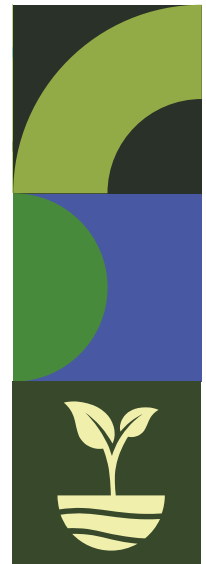




“Dedicated to enhancing lives, empowering communities, and championing inclusivity, we wholeheartedly embrace our social responsibility as an indispensable cornerstone of our aluminium industry journey. Together, we forge a brighter and more equitable future.”

# Social

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Vedanta recognizes the profound influence our operations exert on local communities and society at large. We firmly believe that sustainable business practices are not only crucial for our enduring success but also indispensable for the well-being of the planet and all its inhabitants. Our dedication to the path of social

sustainability is an ongoing and unwavering commitment. In the subsequent sections, we will delve into our social initiatives, partnerships, and accomplishments, offering concrete evidence of our steadfast resolve to enhance the quality of life for our stakeholders.



## Diversity, Equal Opportunity, and Inclusion

Workplace justice entails offering equal opportunities to all individuals within the organisation, devoid of any bias related to gender, ethnicity, nationality, or other attributes. Our ongoing commitment revolves around cultivating diversity throughout our workforce, actively encouraging the inclusion of women, individuals from different national backgrounds, and LGBTQIA+ community members, particularly in leadership positions.

By actively promoting diversity and inclusivity, we are dedicated to establishing an environment where diverse team members are empowered and take pride in their work, feeling a sense of fulfilment.

Our commitment extends to ensuring equal opportunities for all employees, regardless of their gender, race, religion, nationality, or age. However, achieving gender parity is a primary focus for us. Traditionally, the manufacturing industry, particularly mining and metals, has been male dominated. Hence, we have made substantial efforts to attract and retain highly talented women professionals. As a result, our company stands out as one of the few global natural resource firms with a robust gender diversity ratio across all organisational levels.

Employment Category	Gender	Jharsuguda	BALCO	Lanjigarh	Sector
Total Full Time Employees (permanent and temporary)	Male	2,641	1,539	787	4,967
	Female	404	234	252	890
	Total	3,045	1,773	1,039	5,857



### Gender Diversity Table

DIVERSITY INDICATOR %	SECTOR	FY 30 Target
% Share of women in total workforce	15%	30%
% Share of women in all management positions	18%	25%
% Share of women in junior management positions	18%	30%
% Share of women in top management positions	2%	6%
% share of women in management positions in revenue generating functions	25%	30%
% of women in STEM related positions	12%	30%

	Executive level	Middle Management level	Junior Management level
Ratio of avg basic salary	1.739	1.454	1.115
Ratio of avg remuneration	1.495	1.361	1.092

Nationalities	% share in total workforce	% share in all management positions
Indian	99.96%	99.96%
Indonesian	0.017%	0.017%
Bahraini	0.017%	0.017%

To further this commitment, we've implemented various initiatives in recent years to cultivate women leaders. Programs like V-Lead and Diversity Growth Workshop are designed to identify high-potential women in middle management and provide them with the skills and opportunities needed to join decision-making bodies. These initiatives have led to a notable increase in the representation of women leaders within our Executive and Management Committees across all our Business Units.

#### Diversity Growth Workshop

As part of our commitment to nurturing internal leadership, Vedanta Aluminium conducted a Diversity Growth Workshop. During this workshop, we identified and selected 15 women leaders for significantly enhanced roles within the organisation. These leaders were chosen through a structured assessment process that focused on business acumen, technology, and digitalization skills. They are being actively groomed to bring fresh perspectives and innovative ideas that will unlock greater value for the company.

In our pursuit of fostering inclusivity within our workplace, this year, we welcomed 8 specially abled individuals and 21 transgender professionals across the aluminium sector, in roles spanning security, administration, and operations.





### Diversity and Inclusivity: Hiring Transgenders

Globally, the gender diversity ratio in manufacturing and heavy engineering industries has traditionally been low, and this deficit is quite acute in metals and mining. To build a diverse workforce, we have been working extensively towards attracting high-potential women professionals to join its ranks. This year, we embarked upon the mission to expand its recruitment ambit further and tap into LGBTQIA+ talent pool. It puts us among the handful of manufacturing companies in India and the world to have LGBTQIA+ employees in core operations.

To ease their transition from the fringes of society to smart manufacturing plants, and help them evolve from semi-skilled people into professionals, Vedanta Aluminium has adopted a three-pronged approach, that includes:

**Identification:** We worked with local NGOs and transgender community to conduct a skill mapping study and identify trans people with minimum required skills for working in a manufacturing industry.

**Training:** Post selection of such candidates, the company is taking them through an extensive training program aimed at honing the required skillsets, including soft-skills and business knowledge.

**Building an empathetic & inclusive environment:** Parallely, we are also conducting gender-sensitization sessions for its workforce, with respect to the social and psychological challenges of trans people, proper code of conduct and ways of working to build a cohesive and encouraging environment for all. This also includes ensuring required infrastructural augmentations.



Hiring transgender employees in core operations for a truly inclusive workplace



### Employee Hires and Turnover

Addressing the challenge of retaining employees, particularly in remote plant locations, has been a priority. We closely monitor employee turnover, which encompasses voluntary resignations, involuntary layoffs, and retirements. This helps us gain a better understanding of workforce dynamics and changes. Notably, our total turnover rate has decreased from 14.35 percent in FY 2021 to 9.29 percent in FY 2023.

The competitive labor market, characterized by disruptive industry practices and the growing trend of flexible work arrangements, has necessitated a shift in our approach to salary structures, benefits, professional development, and working conditions. These adaptations align with evolving expectations and aim to attract, engage, and retain top talent. In FY 2022-23, the total voluntary employee turnover rate was 8.33%.

To mitigate attrition among Graduate Engineer Trainees (GETs), we implemented a retention bonus program after 18 months of their engagement with the company. Additionally, a thorough induction process for GETs ensures they are placed in appropriate departments, contributing to attrition control efforts. For a detailed breakdown of employee turnover and new employee hires, refer to the GRI content index on Page 128.



% of open positions filled by internal hires is

**6%**

### Local Employment

Vedanta Aluminium's hiring policy places a strong emphasis on engaging local residents whenever possible. We are dedicated to identifying and preparing potential candidates from our nearby communities to support the growth of our business. Our CSR initiatives are specifically designed to provide training to local individuals in various skills, enhancing their employability within our facilities. Currently, 77.15 % of our workforce, which includes both direct employees and those employed by our business partners (82.16 % in Jharsuguda, 78.89 % in BALCO, 65.84 % in Lanjigarh), are recruited from the local population. Additionally, we actively involve apprentices from neighbouring communities, offering them training to enhance their skills and employability. We classify individuals from the communities neighbouring our operation sites or those from the same state as local residents.

### Project Panchhi

Vedanta's innovative corporate recruitment drive which aims to employ 1000 girls from economically backward communities, who are likely to opt out of pursuing further studies and a fulfilling career, owing to financial and social constraints, across its diverse businesses in metals, mining, oil & gas situated pan-India. In the first phase, 40 such girls have been identified for recruitment at Lanjigarh operations. Vedanta is undertaking a rigorous selection process to identify the right set of candidates based on various criteria and will then sponsor their graduation as they undergo courses in leading institutions of national repute. Post completion of graduation, the job offers will get formalised and these girls will then join Vedanta's operations as graduate trainees in core operations.



### Senior management hired from local community

**20%**

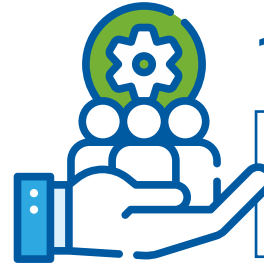
of senior management hired from local communities

### Employee Engagement

We actively engage with our employees and business partners through regular formal sessions that cover various significant topics. These interactions encompass activities such as setting annual performance targets, conducting performance assessments and feedback sessions, discussing career advancement opportunities, providing insights into the organisation's growth and future plans, fostering motivation and encouragement, facilitating learning and development, and strengthening team cohesion, among other subjects.

We strongly emphasize the importance of effective communication and consistent feedback in driving professional growth for our employees and enhancing organisational productivity. Our internal communication channels include Chairman's Workshops, townhall meetings, leadership update forums, HSE leadership and Sustainability Steering Committee meetings, site-level risk sub-committees, employee engagement surveys, and various other on-site forums.

### Human Capital Return on Investment (HC ROI)



**13.85%** SECTOR

**25.39%** JSG+LNG

**13.85%** BALCO

To assess the efficiency of our human capital management processes and to gauge our employees' perceptions of the company's work culture, we regularly conduct both internal and external surveys. These assessments enable us to evaluate the success of our HR policies and systems, as well as the level of professional satisfaction and trust among our workforce. Every year, we participate in the Great Place to Work (GPTW) survey, which assesses us based on five key parameters: Credibility, Respect, Fairness, Pride, and Camaraderie among our employees. We are proud to be recognised as a 'Great Place to Work' in India. Our employee engagement score in the GPTW survey over the past three years is provided below:

### GPTW score results for sector:

**79** With 75% employees covered



Core Focus	FY 2021	FY 2022	FY 2023	Target for FY 2023
Employee Satisfaction	76	80	79	90
Data coverage	10	14	75	



# Learning & Development

One of our primary areas of focus centres on establishing a robust talent and succession pipeline within the Aluminium Sector. Our steadfast belief is that leadership development serves as the cornerstone for enhancing the skills and competencies of our workforce. Our programs are meticulously designed to unlock the full potential of our employees. We offer a diverse range of opportunities to facilitate their development, encompassing classroom training, on-the-job training, Individual Development Programs, engagement in high-impact projects, and comprehensive mentoring and feedback processes.

To meet this imperative need, our business entities are committed to providing technical skill-building training. Furthermore, we have structured programs in place to guide employees through the transition from their working years into retirement. These programs include initiatives like Computer Literacy programs, wealth management guidance, tradesman skill-building programs, certificates and diploma courses, retirement workshops, and employee assistance programs. In addition to that, we have designed the Outbound Learning Program (OBL), which takes employees out of their regular work environment, providing a unique and adventurous experience that fosters better connections among colleagues. This program not only offers real-time knowledge through exciting experiences but also plays a crucial role in shaping employees' personalities. It assists them in aligning with Vedanta's core values and competencies, contributing to their overall growth and development.

Our holistic approach ensures that our employees are equipped not only with the technical skills required for

their roles but also with the knowledge and support necessary for a successful transition to retirement, reflecting our dedication to their lifelong development and well-being. This commitment to employee growth aligns seamlessly with our organisational philosophy, recognising that continuous learning and capability building are indispensable for sustainable growth.

## TALENT MANAGEMENT

Our People Strategy is dedicated to securing the right talent, nurturing their development through structured programs, and propelling them into leadership positions to help us realise our vision of becoming the world's premier aluminium producer. A core focus of our company has always been the cultivation of high-potential talent from within our organisation through a range of initiatives. We provide these individuals with the necessary support and guidance to prepare them for elevated roles. Over the years, we've designed several customised programs to holistically nurture our talent pool. We continually assess the success of these programs and adapt them to align with evolving business needs. In a world and market that is growing increasingly complex, we are building an agile workforce equipped with the right skillsets and mindset to navigate these complexities. To instil this quality, we encourage job rotation for employees who have held a specific role for more than three years in sensitive positions and five years in technical positions. This approach grants them a 360-degree perspective of the business, exposing them to a broad spectrum of challenges and opportunities. Our aim is to cultivate a robust leadership pipeline for future technical and managerial roles through tailored talent development programs.



### Vedanta Leadership Development Program

**(VLDP):** VLDP is our flagship initiative designed to enhance organisational capability by developing talent from premier management and technology institutes. It nurtures India's finest talent to become catalysts for propelling our business to new heights through transformative ideas and exceptional skills. The program encompasses induction sessions, cross-functional projects, significant roles, job rotations, development opportunities, and effective mentoring to provide participants with in-depth knowledge of our operations and help them identify their areas of interest for suitable roles.

### ACT-UP (An Accelerated Competency Tracking & Upgradation Process):

ACT-UP is a collaborative program with external expert agencies aimed at identifying and nurturing high performers while developing leaders for tomorrow within the entire Aluminium Sector. This program features an assessment center that evaluates participants through various tools such as case study analysis, group assignments, personal interviews, and psychometric profiling. Each participant receives personalized developmental feedback and an Individual Development Action Plan (IDAP) based on their assessment results. Those identified as high-potential employees at the end of the process are recognised as the Stars of the Business.

### V-Reach (Graduate Development Program):

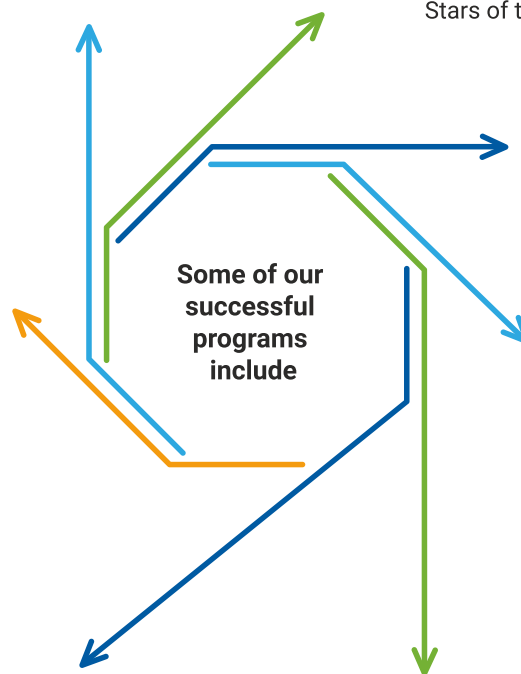
This program focuses on identifying, recognising, and elevating the top talent among our graduates, who form the backbone of our business. Implemented under the guidance of the Company's Vice Chairman, it has identified around 120 such leaders across our Business Units, offering them elevated roles and fast-track career growth opportunities.

**V-Lead:** In line with our long-term sustainability roadmap, we have initiated efforts to provide comprehensive training to highly capable female leaders.

**V-Aspire:** This initiative primarily emphasizes cross-business transitions and aims to offer added roles and responsibilities to our cost and management accountants.

**V-Excel:** This program is designed to enrich the distinctive talent development of newcomers under the mentorship of experienced leaders. It operates through a digital platform accessible round the clock, seven days a week, from any location. The program encompasses the processes of onboarding, engagement, grooming, and nurturing of young employees and recent recruits, all aimed at fostering the comprehensive development of the Company.

**V-Reach Tech:** V-Reach Tech 1.0 was introduced to identify talented engineers and elevate them to more substantial roles. This initiative has identified over 41 leaders, including 13 women, across the Aluminium Sector. These leaders are now driving high-impact projects and innovations, assuming leadership positions throughout the organisation. They are harnessing their full potential and serving as ambassadors of Vedanta Aluminium's engineering expertise.





Key Performance Indicator	Sector
Average hours/FTE of training and development	43.2
Average amount spent on training and development (INR)	9,202

## PEOPLE STRATEGY

Our People Strategy focuses on securing the right talent, developing them through structured programs, and elevating them to leadership positions. In essence, our commitment to talent management underscores our dedication to sustainable growth and organisational excellence, ensuring we navigate the complexities of today's world while becoming a global leader in the aluminium industry.

On World Happiness Day this year, we at Vedanta Aluminium, took a significant step towards enhancing the well-being and happiness of our employees and their families by launching the "Umang" Employee Wellness & Lifestyle Program. In collaboration with MantraCare, a prominent health technology company, we aim to provide holistic health management solutions. Our expansive operations in Odisha and Chhattisgarh are powered by a dynamic and diverse workforce, constantly pushing the boundaries of innovation in a competitive environment. To support their physical fitness, we've invested in world-class townships equipped with gyms, sports complexes, swimming pools, and more.

The Umang program is a structured year-round initiative aimed at fostering holistic well-being. Through our interactive app, we offer services such as online psychological counselling, physiotherapy, yoga, meditation, weight management, and support for de-addiction. With Umang, we're expanding our commitment to help our employees and their families lead happier and more fulfilling personal and professional lives. Our people are at the heart of our vision to become a global leader in the aluminium industry, and their well-being is our top priority.



Aligned with our philosophy, we firmly believe that continuous learning and capability building are essential for an organisation's growth. To meet this imperative need, our business entities offer comprehensive training programs that focus on enhancing technical skills. AWe maintain a commitment to the professional growth and development of our employees. To this end, we ensure that 100% of our employees receive regular performance reviews. These reviews play a pivotal role in assessing progress, setting goals, and providing constructive feedback to facilitate continuous improvement and career advancement.

Our employee performance appraisal systems integrate the code of conduct. For our senior management, we have a multidimensional 360-degree appraisal process, while for remainder of the workforce, it is carried out as Management by objectives (MBO), through a dedicated portal called 'Darwinbox'

One of the core responsibilities of our Human Resource function is to cultivate a robust talent pipeline and succession plan within the company. This entails providing extensive training and deliberate exposure to our employees, with the ultimate goal of preparing them for higher roles within the organisation. To achieve this, we have implemented several programs to foster the professional development of our middle management personnel, grooming them for senior management positions.

Our initiatives for middle management development encompass a range of activities, including:



#### **Management Development Programs (MDP)/Trainings**

These programs offer our middle management employees the opportunity to receive training from esteemed faculty members of some of India's top management institutes, such as the IIMs.



#### **ExCo Coaching and Mentoring:**

Under this initiative, leaders have the opportunity to receive coaching from an ExCo member. These interactions occur at least once a quarter, and we maintain records of these valuable interactions to track individual progress and program success.



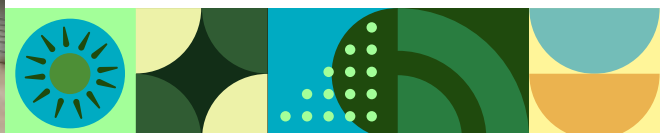
#### **V-Connect for Middle Management:**

Our mentoring program, known for its effectiveness, assigns every senior leader a group of 10 mentees. These mentors and mentees engage in monthly interactions covering various aspects of personal and professional growth. This program not only benefits mentees but also provides mentors with the opportunity to connect with employees from diverse functions within the organisation.



These initiatives reflect our commitment to nurturing and developing our middle management talent, empowering them to take on leadership roles and contribute to the organisation's continued success.

We at Vedanta Aluminium place a strong emphasis on talent development, succession planning, and continuous learning to drive sustainable growth. We have implemented a range of programs to unlock employees' potential, including classroom and on-the-job training, high-impact projects, and mentoring. We are dedicated to equipping employees with the technical skills needed for their roles and supporting their transition into retirement.





## Talent Development Program

### Program 1

#### **Analytics and AI/ML workshop for top management:**

Executive Immersion in Advanced Analytics Program is a flagship initiative started by Vedanta Aluminium for senior leaders to equip them with better decision-making ability through the power of AI & digitization.

#### — **Description of program objective/business benefits**

It is aimed to address competencies like strategic thinking and business accumen and develop better decision making through AI/ML capabilities.

#### — **Quantitative impact of business benefits (monetary or non-monetary)**

Our productivity for FY 2023 has been 390 tonnes of aluminium per FTE. This has resulted in a revenue increase of INR 3.88 Million per FTE.

#### — **% of FTEs participating in the program**

0.02%

### Program 2

#### **Leadership Excellence Accelerator Program (LEAP):**

A program specifically designed for successors of critical positions which started in 2023. This was a flagship initiative to make managers ready for future leadership positions.

#### — **Description of program objective/business benefits**

It is aimed to address competencies like managing self, managing people and performances and managing business. Through this program 56 managers were better equipped to navigate challenges, driver performance, and contribute significantly to their organization's growth and success.

#### — **Quantitative impact of business benefits (monetary or non-monetary)**

Our productivity for FY 2023 has been 390 tonnes of aluminium per FTE. This has resulted in a revenue increase of INR 3.88 Million per FTE.

#### — **% of FTEs participating in the program**

0.02%



# Health, Safety and Well-being

Workforce safety stands as a paramount concern for an aluminium company, encompassing various facets of paramount importance. It is indispensable for safeguarding the well-being of employees, upholding legal compliance, curtailing operational expenses, amplifying productivity, preserving a sterling corporate reputation, and sustaining competitiveness within the industry. Prioritising safety transcends mere benefits for the company and its workforce; it constitutes a pivotal step toward fostering a conscientious and sustainable business ethos.

## Management Approach:

In our operational framework, we acknowledge the potential health hazards inherent in our activities. Therefore, we are steadfast in our commitment to eliminating any risks to the health of our workforce. Our management approach revolves around the adoption of robust health management systems across all operational sites. We invest in state-of-the-art methodologies to minimise employee exposure to health hazards, including the installation of pollution control equipment, stringent material and waste storage protocols, and ongoing monitoring of control measures' effectiveness. In addition, we equip every employee and contract worker with Personal Protective Equipment (PPE) and undertake comprehensive awareness programs, workshops, training sessions, and site visits to sensitize our workforce.

## Reduction of health risk level exposure:

Our unwavering commitment is to achieve zero health and safety incidents. To do so, we've launched a project focused on reducing 'red zone' areas. This comprehensive effort involves monitoring personal exposure to various contaminants like dust, noise, vibration, and heat stress. By implementing exposure control measures, we have already reduced red zone areas to 177 in FY 2023. Our goal is ZERO exposure to red zones by FY 2030.



**Safety Vanguard:** A 'Safety First' mindset, implementing robust safety initiatives at every plant

## Health Risk Level Exposure: KPIs and Performance

### Sustainability Strategy Goals | Elimination of RED ZONE exposure to ZERO for company and Business partner employees by 2030

#### Summary of progress in 2023



Red Zone exposure areas of the sector is 177, having reduced from 246 from previous year

#### Target



<b>2023</b>	Reduce RED ZONE exposure area < 169
<b>2025</b>	Reduce RED ZONE exposure to 64 (From 2018 baseline)
<b>2030</b>	0 (from 2018 baseline)



## Safety: KPIs and Performance

### Zero Fatalities



Summary of  
progress in 2023

1



Target  
2025

0



Target  
2030

0

### Zero LTIFR



Summary of  
progress in 2023

0.4



Target  
2025

0



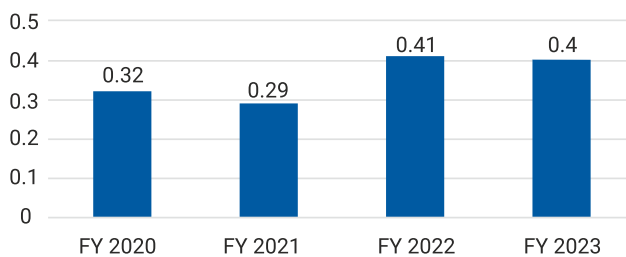
Target  
2030

0

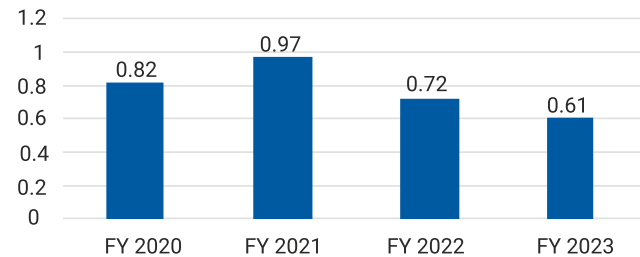
In this reporting period, we regret to report one fatality. To prevent such tragic incidents in the future, we conducted comprehensive root cause analyses to understand the underlying factors. Based on these findings, we've developed corrective actions and assigned responsibilities, all of which have undergone review by our senior management. We believe in sharing these lessons learned and the results of our incident investigations with all business units within the company. This ensures that if there are any relevant preventive actions to be taken at their end, they are aware and can implement them. It's

worth noting that all our operational sites are certified under ISO 45001 (2018) for Occupational Health and Safety Management. We take a proactive approach by identifying high-potential incidents, which are those with the potential to cause serious injuries or fatalities. These incidents are thoroughly investigated by cross-functional teams. Our senior management conducts monthly reviews of Corrective and Preventive Actions (CAPA) for all serious and high-potential incidents, and they ensure that all action items are implemented on the ground as per the set targets .

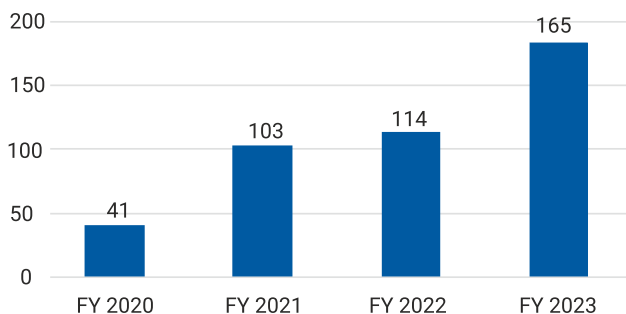
### LTIFR



### TRIFR



### HIPO



In FY 2022-23, our Lost Time Injury Frequency Rate (LTIFR) was 0.4, and our Total Recordable Injury Frequency Rate (TRIFR) was 0.61. Given our commitment to safety, our leaders actively engage with the entire workforce through various platforms such as safety town halls, Safety Stand Down meetings, toolbox talks, safety interactions, and more. This ongoing engagement aims to continually improve our safety culture and practices.

The company has launched a monthly safety program called 'Suraksha Sankalp' to emphasize workplace safety and reward personnel for adhering to safety practices. The program includes various initiatives across different locations, such as safety audits, interactions, mentoring programs, and campaigns like 'Roko Toko'. 'Suraksha Sankalp' reinforces the importance of safety, leading to a safer work environment and reducing the risk of accidents and injuries. The company is also implementing digital safety notice systems to track non-compliances. Additionally, we have introduced 'Suraksha Ki Paathshala,' a digitally enabled safety training kiosk, and a Critical Risk Management initiative called 'Vihan' in partnership with DuPont. Implementing digital safety notice systems improves tracking and accountability, ensuring that safety concerns are addressed promptly. Through the initiatives like 'Vihan' we aim to identify early warning signs and implement critical controls, reducing the likelihood of untoward incidents, particularly in critical risk areas.



**SURAKSHA SANKALP:** A continuous monthly safety program to reinforce the importance of workplace safety and to reward personnel following best safety practices



Implementing 100% man-machine segregation is an initiative aimed at minimising incidents where individuals may inadvertently be in the path of moving vehicles. This effort is aligned with the principles of CHETNA and seeks to raise awareness among personnel. We have observed significant reduction in vehicle-related incidents involving interactions between individuals and machines. We have achieved an impressive 80% compliance rate with this initiative.

Our comprehensive safety strategy harnesses cutting-edge technology, such as the Digital ZEBRA crossing at BALCO shopfloors. We've also introduced Vunified: Enablon,

an innovative unified Health Safety and Environment (HSE) digital platform that integrates seven key HSES modules, including Incident Management, Observation Management, Data Management, Management of Change, BP Safety Management, Process Hazard Analysis, and Risk Management. Additionally, we've implemented AR VR-based safety training and AI-based HSE surveillance systems. Addressing the critical challenge of monitoring safety non-compliances, we have installed AI based CCTV cameras in remote locations. These initiatives have already had a significant impact by proactively identifying and mitigating unsafe conditions and actions. As a result, we've achieved an impressive 60% compliance rate across these initiatives.

At all our sites, we employ a stringent Contractor Pre-Qualification Questionnaire, which serves as an assessment instrument. This tool plays a pivotal role in appraising contractors' dedication and advancement in Occupational Health and Safety (OH&S). The evaluation covers an array of OH&S aspects, including, but not limited to:



OH&S responsibilities



Induction and training



Selection of Subcontractors



Health Monitoring



Insurance



Plant and Equipment



Accident/Incident Management



PPE



Safe Work methods



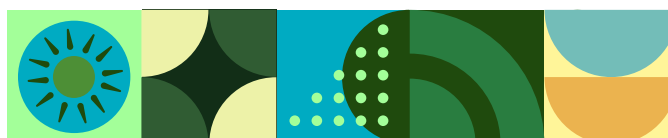
Hazard Management



Emergency response



Mining Responsibilities





We place a paramount focus on employee well-being, recognising that prioritising safety goes beyond corporate benefits. We offer an extensive range of benefits to our employees, which encompass various aspects of well-being, including a life insurance scheme, health insurance coverage, disability protection, parental leave, retirement

benefits, and participation in Vedanta's stock options program for management grades.

We have established a range of employee support programs to enhance the well-being and overall satisfaction of our workforce and their families:



#### **Workplace Stress Management:**

We offer programs such as V care and Umang Employee Wellness & Lifestyle Program, which are designed to mitigate workplace stress and enhance the well-being and happiness of our employees and their families.



#### **Sport and Health Initiatives:**

Through our HR and Health & Safety employee engagement programs, we promote both physical and mental health among our employees. We conduct physical and mental health awareness sessions, health camps, competitions, webinars, blood donation drives. Additionally, we organize sports tournaments, including cricket, chess, hockey, volleyball etc.



#### **Flexible Working Hours:**

In FY 2023, we implemented a new HR portal, Darwinbox, which allowed us to introduce a flexible working hour policy. This policy enables employees to start their shifts up to two hours later or finish two hours earlier than the standard shift timings, providing greater flexibility in managing their work schedules.



#### **Childcare Facilities:**

We understand the importance of supporting working parents, and to that end, we offer childcare facilities at various locations. In Jharsuguda (JSG), we provide creche and daycare facilities within the township. At BALCO and Lanjigarh, we have established creche facilities inside the plant, complete with full-time nursing care. Moreover, we offer an additional nursing break of one hour, in addition to the lunch break, to accommodate childcare needs.



These initiatives underscore our commitment to creating a supportive and holistic work environment that prioritizes the well-being and work-life balance of our employees.





In terms of parental leave, our policy is designed with the utmost consideration for our employees. Maternity leave extends to 26 weeks, while we also provide a 12-week adoption leave and 1-week paternity leave. We understand that returning to work after such significant life events can be challenging, which is why we provide returning

mothers with the flexibility to choose between continuing in their current role or exploring alternative job profiles. This flexibility enables them to effectively manage their personal and professional priorities as they navigate this important phase of their lives.

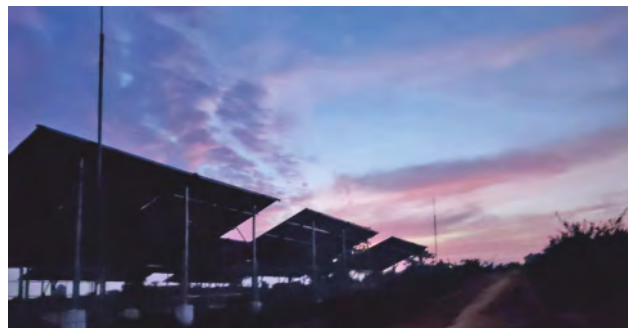
Particulars	Gender	Sector
Total Number of Employees that were entitled to Parental leave	Male	4,784
	Female	848
Total Number of Employees who took Parental leave	Male	205
	Female	25
Number of employees who resumed office post completion of paternal leave	Male	210
	Female	36
No of employees who were in continuous service for next 12 months after returning from Parental leave	Male	199
	Female	9
Total number of employees who are due to return to work in the reporting period, after taking parental leave	Male	210
	Female	37
Total number of employees returning from parental leave in the prior reporting period	Male	209
	Female	11
Return to Work Rate	Male	100%
	Female	98%
Retention rate	Male	95%
	Female	69%

Our unyielding commitment to workforce safety permeates every facet of our operations, from the reduction of health hazards to the comprehensive 'Suraksha Sankalp' program and initiatives like 'Vihaan.' We are dedicated to creating a safer and more responsible work environment for our employees, ultimately enhancing

our competitiveness, sustainability, and corporate reputation in the aluminium industry. Our commitment to employee well-being is embedded in every aspect of our company culture, reflecting our dedication to creating a safe, supportive, and fulfilling workplace for our workforce.



# Community Engagement and Development



Building robust connections with our neighbouring communities lies at the heart of our dedication to sustainable business growth. We firmly believe that our achievements are deeply linked to the welfare of the communities where we operate. We acknowledge the critical importance of these communities' collaboration for the seamless continuation of our operations. It is our primary duty to protect and enhance the socio-economic welfare of these geographically distant segments of society, while concurrently pursuing our economic advancement. Through a range of initiatives and partnerships, our goal is to create a positive and uplifting impact on the lives of those in our vicinity.

## Management Approach:

Our operations are situated in remote regions of the Indian states of Odisha and Chhattisgarh, areas that have historically lagged in the country's rapid development due to their geographical isolation. In line with Vedanta's commitment to sharing values with these communities, we have directed our community development efforts towards enhancing social and financial inclusivity in these settlements. Our initiatives encompass various aspects such as sustainable livelihoods, skill development, quality education, healthcare, women and child development, infrastructure improvement, sports, and culture promotion, and more.

At Vedanta Aluminium, our vision of "giving back" is rooted in a systematic and impact-driven approach that transcends regulatory requirements. We prioritize a people-centric development philosophy that encompasses 100% of our business operations. Through Public-Private Partnerships with local governments and beneficiaries, we collaboratively design community development strategies and execute programs.

We identify our host communities' needs through participatory assessments, working together to create a shared development roadmap. Once approvals are secured, we allocate resources for joint implementation and closely monitor progress toward our objectives. We firmly believe that our business's long-term success is intimately tied to the well-being of these communities.

Our aim of 'Transforming Communities' is to operate in a manner that cultivates trust and delivers significant and positive social change to these communities. This commitment underscores our dedication to maintaining our 'Social License to Operate' by prioritizing consultation, transparency, and fairness, all contributing to the economic and social prosperity of society.

We analyse the socio-economic and demographic conditions of our neighbouring communities through baseline and needs assessment studies. Our approach to community development is rooted in a "rights-based approach," striving for inclusive socio-economic growth. Our publicly available CSR policy underscores our commitment to integrating sustainable community development into our business operations, and we regularly communicate the results of our community development programs to stakeholders. As of the end of FY 2022-23, our projects have positively impacted 0.63 million women and children.

We greatly value community impact and development because of their influence on our operations and supply chain. More than 50% of our business activities are directly linked to these aspects. The effects of our actions reach beyond our organization and affect society as a whole, with both positive and negative consequences acknowledged.

Additionally, we have established a grievance redressal mechanism for local communities and stakeholders to provide feedback and critique our processes and programs. This mechanism has enabled us to better understand their needs and expectations, resulting in the resolution of 63% of grievances raised last year. We successfully resolved 50 % of the social incidents registered since FY 2021.

In FY 2023, we focused on maximising benefits and support to our communities through comprehensive interventions across various developmental dimensions.

**Goal | Local Procurement**

**Summary of  
progress in 2023**

43.9%



**Target  
2025**

48%



**Target  
2030**

50%

**Goal | Families Impacted\***

**Summary of  
progress in 2023**

+27,000\*\*  
(baseline 2016)



**Target  
2025**

40,000+  
(baseline 2016)



**Target  
2030**

80,000+  
(baseline 2016)

**Goal**  
**100 % of social incident to be investigated and closed  
by 2025**



**Summary of  
progress in 2023**

50%



**Target  
2025**

100%



**Target  
2030**

100%

**Goal | Woman and Children Impacted\***

**Summary of  
progress in 2023**

0.63 million\*\*  
(baseline 2016)



**Target  
2025**

0.48 million  
(baseline 2016)



**Target  
2030**

0.50 million  
(baseline 2016)

**Goal**  
**100% of grievances to be resolved by 2025**



**Summary of  
progress in 2023**

63%



**Target  
2025**

100%



**Target  
2030**

100%

\*The above values are cumulative figures, year on year

\*\*There are chances of double accounting of data as a beneficiary can be a part of more than one CSR programs, or two or more beneficiaries may be from the same family



### Community Development Projects

Our projects are developed and put into action through close collaboration with neighbouring communities and various stakeholders. The foundation of our community investment initiatives is built on the principle of creating shared value. These programs align with the United Nations Sustainable Development Goals (SDGs) and reflect our commitment to Internal Council on Mining and Minerals' (ICMM) Principle 9, which emphasizes ongoing improvement in social performance and contributions to the social, economic, and institutional development of host communities.

During FY 2022-23, we allocated approximately INR 957 million to our community development projects, benefiting approximately 0.69 million individuals. The table below illustrates our performance and outlines our targets for further strengthening our relationships with these communities.



Our approach to infrastructure initiatives is rooted in a commitment to the common good, placing public welfare ahead of immediate economic returns. These encompass a diverse array of projects, ranging from transportation and utilities to healthcare, community services, education, and recreational facilities.

When it comes to our services, our dedication is to deliver tangible public benefits. We achieve this either by directly covering operational expenses or by utilizing our highly skilled personnel to efficiently manage these facilities or services.

We've initiated numerous community development projects to enhance communities' well-being, including renovating the mid-day meal centre, establishing a skill training centre, and creating job opportunities for local youth. Our infrastructure investments in Sindbahali, such as internal CC roads, bitumen roads, and Dharni Ghar construction, have met community needs and built goodwill.

Furthermore, we've launched projects like renovating community stages, installing borewells, improving road infrastructure, and enhancing road safety with safety signage. These efforts have improved road access, provided clean water access, and raised road safety awareness.

Our development projects in the R&R Colony encompass operations, health, education, sanitation, infrastructure, sports, and culture. Our strategic CSR infrastructure investments include Quality Assurance Services, R&R School Renovation, Community Centres, maintaining the District Athletic Sports Complex etc. These initiatives underscore our unwavering commitment to enhancing community well-being and improving their quality of life.

Total cost incurred was

**INR 3,684 crores**



### Enhancing Lives and Building Wellness: Project Arogya (BALCO and Lanjigarh)



"Arogya" represents a comprehensive healthcare initiative, extending its reach to 45 neighbouring villages and improving the lives of over 32,000 residents. The initiative covers various critical areas:

- **Primary Healthcare Services:** We've established Rural Health Posts (RHPs) in areas previously lacking healthcare access, ensuring that the entire community, including urban regions, can receive essential medical care.
- **HIV Awareness:** Through extensive awareness campaigns and counselling sessions, we've made a significant impact, especially among high-risk groups, with over 1,900 community members positively influenced.
- **Maternal & Child Health Care:** Our focus on enhancing nutritional and behavioural practices, powered by UNICEF's Positive Deviance Hearth (PDH) program, has led to a remarkable 63% improvement rate in malnourished children.
- **Take Home Ration (THR) Training:** Training sessions have transformed the consumption of Take-Home Ration (THR), benefiting 643 mothers.
- **Nutrition Gardens:** We've set up 150 Nutrition Gardens, promoting healthy nutritional practices.

### Mamta Farrey's Inspiring Journey: Nurturing Health and Nutrition Through Arogya



Mamta Farrey, 28, resides in Nehru Nagar with her spouse Deepak Farrey, 30. They have two children: Bikesh, 6.5 years old, and Kunal, 3.5 years old. In May 2022, Kunal was identified as Severely Acute Malnourished (SAM) with a weight of 8.7 kg. Despite seeking multiple treatments and consulting different doctors, his health didn't improve, causing concern for Mamta.



Through the Arogya project, Mamta received counselling on caregiving and nutrition. She established a kitchen garden to ensure diverse, nutritious food for Kunal. Participating in Take Home Ration (THR) training, she learned recipes that greatly improved Kunal's health, with dishes like laddu and protein powder from THR.

These changes led to a noticeable improvement. By July, Kunal transitioned from SAM to Moderately Acute Malnourished (MAM), weighing 9.3 kg. Regular home visits and support ensured sustained positive health behaviours.

In September, Mamta enrolled Kunal in the Positive Deviance Hearth (PDH) session. Over 12 days, Kunal gained 600 grams (10.2 kg to 10.8 kg). Mamta continued positive childcare and feeding practices.

After 45 days of PDH, Kunal's weight normalised, maintaining good health. Mamta incorporates THR and PDH recipes, and she's become a catalyst for positive change in her community, inspiring other mothers.

#### **Visionary Healthcare: Project Arogya's Impact on Cataract Patients**

For the underprivileged individuals in Kalahandi and Rayagada, Project Arogya takes both curative and preventive approaches, with a particular focus on addressing the prevalent issue of cataracts among the elderly in remote regions.

One standout component of this initiative is the Cataract Camp, carefully timed during the winter season to minimize infection risks and ensure swift recovery. It begins with extensive awareness campaigns led by the Community Health Awareness Team, followed by beneficiary screenings. Identified patients receive initial treatment at Vedanta Hospital, followed by cataract surgeries. Given the advanced age of the patients, ongoing follow-ups and regular check-ups are integral to their care.



**Empowering Lives: Our Commitment to Sustainable Healthcare Solutions**

## A Journey of Skill Development and Entrepreneurship (BALCO)



The 'Maa Manka Devi' Self-Help Group (SHG), formed in 2019 in Shanti Nagar, embodies the saying "Where there's a will, there's a way." With guidance from Project Unnati, these women learned valuable skills in financial management, teamwork, and entrepreneurship.

Their journey began with brainstorming income-generating ideas, leading them to embrace cooking. Under Project Unnati in April 2022, they received training in 'Chattisa' microenterprise, honing their skills to prepare local snacks with Chhattisgarh flavours. This training covered menu planning, cooking techniques, hygiene, and customer service, boosting their confidence and aspirations.

### Nourishing Communities

Lata, an SHG member, recognised a demand for homemade, nutritious meals among working professionals. She launched her tiffin service in July 2022, starting with just two tiffins. Drawing inspiration from Chattisa flavours, she crafted a diverse menu, emphasizing local ingredients' freshness. As demand grew, Shivri Rajput and Sarita Rajput joined, and they now dispatch over 200 tiffins monthly, earning INR 10,500 to INR 16,800. Expanding doorstep delivery in Balco Nagar, they anticipate handling over 500 tiffins monthly.

These women's innovative tiffin service not only established a thriving business but also empowered them and inspired their community. Their story showcases the transformative power of women, proving that unity, skill development, and entrepreneurship can drive profound change.





## Empowering Women and Fostering Entrepreneurship (Jharsuguda)



Subhalaxmi Cooperative is a leading community organization in Jharsuguda, dedicated to empowering underprivileged women and enhancing their socio-economic well-being. Starting with an initial corpus of INR 1,000, it has grown into one of the country's largest women's cooperatives. Notably, 83% of its loans support microenterprises, resulting in more than 1,300 women micro-entrepreneurs engaged in various agricultural and non-agricultural activities.

Expanding further into Western Odisha, we proudly operate the largest women's cooperative, with over 4,280 women organized into 355 self-help groups (SHGs). These SHGs are self-sustaining and self-managed. Through our microfinance services, we have provided 1,131 loans totaling INR 3.55 crores, supporting businesses valued at INR 37.29 crores for 18,900 members. We've nurtured 144 rural women micro-entrepreneurs across various sectors, including farming, tailoring, agriculture, and fabrication.

Furthermore, our Mahila Kalyan Panthi initiative has granted support totaling INR 24.99 lakhs, benefiting over 1,400 individuals. We've also played a significant role in fostering women leaders, resulting in 15 Board of Directors and 5 elected members in the Panchayati Raj Institutions (PRI).

To scale up this community institution further and increase the membership base to 10,000, Vedanta Ltd. Jharsuguda has introduced Subhalaxmi Udyogini. In this next phase of growth, the company has partnered with Entrepreneurship Development Institute of India (EDII) for entrepreneurship development with skill set enhancement.

### The Success of Subhalaxmi Cooperative

Subhalaxmi Cooperative is one of India's largest rural women's co-operatives, with its services delivery model having four basic components: Capacity Building & Livelihood Promotion, Financial services (saving & credit & insurance), Social development and collaboration and partnership. It is governed by 15 elected Board of Directors and developed a cadre of women leaders through co-operative affairs and management workshops.



With a cumulative base of 4300, the cooperative has won its fair share of accolades, with various national and international awards over the last few years. In 2021, it won the prestigious BRICS solution for SDG (Sustainable Development Goal) award for Gender Equality- its first international award. It also constitutes of 'Subhalaxmi Mahila Kalyan Panthi' – a unique social welfare fund providing financial support to expecting mothers, scholarships to meritorious students, support in case of demise of spouse, etc, to more than 1100 beneficiaries.

## Educational Empowerment



Vedanta Aluminium launched 'Vidya Graha' in 2022. Implemented in collaboration with the Sarthak Sustainable Development Foundation, the Vidya Graha initiative leverages technology to bridge any existing gaps in community access to quality education. It is an e-learning program, to provide recorded lectures and online career counselling to students from classes 8th-10th, thus augmenting classroom learning in government schools of Jharsuguda. It also serves as a web app-based platform for monitoring students' performance and offering support through recorded lectures and doubt-clearance sessions personally conducted by employee volunteers from Vedanta Aluminium. This year, 10 Employee volunteers from Vedanta were engaged in teaching English, Maths & Science in 5 government schools.



### Impact of the Vidya Graha Initiative

The initiative connected 565 students in 5 government schools through digital application located in periphery of Vedanta, Jharsuguda in FY 2023 and has been instrumental in improving student's grades in 10th board exams through digital literacy. This year, 183 chapters were recorded according to the curriculum for 8th, 9th & 10th classes and 144 school visits were conducted for doubt clearing classes of Vidyagrah. A total of 13 students scored more than 75% marks in 10th Board Examination 2023, all of them being girls. The average percentage of students who scored 1st Division in the 10th Board Examination from the intervention schools is 25.46%, which is much higher than last two years [during Covid i.e., 2020-2021 it was 11.79%; and pre covid during 2018-19 it was 16.75%]. The average Board Results of intervention schools is 96.12% which is above the state average result [the state average is 96.04%].

## Indigenous people and cultural Heritage

Vedanta maintains a keen awareness of our activities in remote regions, which are often home to Indigenous People (IPs) and Vulnerable Tribal Groups (VTGs). These communities have profound cultural and economic ties to their local environment, and it is our moral obligation to honour and protect their cultural heritage.

In pursuit of these principles, we have instituted standards in Cultural Heritage, Land & Resettlement Management, and Indigenous People & Vulnerable Tribal Groups. These standards align with international conventions, including ICMM and IFC standards. The Indigenous People & Vulnerable Tribal Groups Technical Standard places strong emphasis on fostering peaceful and respectful interactions conducted in local languages between our project teams and these communities. It underscores our commitment to conducting operations without disrupting their way of life.

For more information, please visit our Indigenous Peoples/Vulnerable Tribal Group (IP/VTG) Policy.





### Sustaining livelihoods through supporting DHOKRA CRAFT & SAURA ART in Lanjigar

Nestled deep within the forests of Kalahandi in Odisha, Kankeri is home to artisans skilled in the ancient metalworking artform of Dhokra, which has been a part of India's rich handicraft legacy for nearly 5000 years, dating back to the Indus Valley Civilization. The inter-generational skill was however limited to crafting rudimentary trinkets and the meagre income they fetched was not enough for the artisans to sustain their families. This had forced many artists to let go of their expertise and migrate to neighbouring states to work as construction labourers.

Through our intervention, we recognized the potential of this village to become a vibrant hub of Dhokra. We trained artisans in producing contemporary designs through modern techniques, provided the initial seed capital for procuring metal and raw materials, and created market linkage opportunities (through exhibitions and other relevant platforms) to sell their art pieces at a better price. This led to a movement of reverse migration, wherein encouraged by the success of the project in transforming the lives of several artisans, many others started returning to the village to pursue their passion of Dhokra art and build sustainable livelihoods. In second phase, we established a raw material bank for continuous art production, provided diesel generators to support Dhokra production, opened a Self-Help Group bank account to provide adequate financial support, and educated and assisted the households to open bank accounts to save their hard-earned money and earn an interest on their deposits. We also collaborated with the Government of Odisha for the public recognition of these artisans through 'artisan cards', which helped them participate in government-held exhibitions, demonstrate, and commercialise their works.

Similarly, Saura Art is an exquisite artform, masterfully painted by the skilled artists of Lanjigarh, in Kalahandi district of Odisha. The art form draws inspiration from nature and the peoples' ways of life, that translates into unique motifs depicting animals, farmers, elements of nature, gods, natural spirits and their ancestors. Witnessing Saura art losing its sheen in the throes of modernity, Vedanta Aluminium stepped in to preserve and promote this ancient artform. From helping the artists carve a remunerative livelihood out of their generational skills to generating interest in the artform through training programs for school students, the Saura Art revival project is our endeavour to be the bridge between tradition and the future, as we work for both.



# Land Acquisition, Rehabilitation and Closure

The Environmental and Social Impact Assessment (ESIA) screening process at Vedanta Aluminium is a comprehensive evaluation that carefully examines the effects of land acquisition and rehabilitation on individuals who may be affected. We are acutely aware that during the displacement process, people may lose access to common property and resources such as forests, grazing lands, burial grounds, and groundwater resources. These assets often hold significant socio-cultural and economic value for the affected individuals.

Vedanta's Land Acquisition and Resettlement Standard places a strong emphasis on minimising the acquisition of accommodated land and ensuring that in cases of physical or economic displacement, the resettlement facilities provided are superior to the existing ones. This approach involves extensive consultations to assess the socio-economic impact of land acquisition on affected individuals and to develop mitigation plans in accordance with applicable national laws and our Company's Land Acquisition and Resettlement Standard. We conduct a

social impact assessment and collaborate with impacted stakeholders to create a resettlement plan. Our standard mandates a third-party conformance audit of the land acquisition and resettlement process to verify that the implementation aligns with the proposed plan.

In terms of grievance management, we have a well-established mechanism for addressing grievances from both internal and external stakeholders. Internally, we offer an online SBU HR Helpdesk dedicated to receiving and managing grievances related to various operational functions, including HR, Admin, Finance, and IT. Each Helpdesk portal is managed by the respective SBU HR department. Externally, our Community Liaison Officer (CLO) serves as the Grievance Officer responsible for aggregating grievances from external stakeholders, gathered through various channels. Our HR department and CLO collaborate to respond promptly to aggrieved parties, often involving functional heads as needed, to ensure that grievances are addressed in a timely and effective manner.

## Human Rights

The core principle underpinning human rights is that every individual deserves to lead a life of dignity, regardless of their nationality, place of abode, gender, national or ethnic background, skin colour, religious beliefs, or spoken language. 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 Aluminium's reputation and relationships with employees, local communities, suppliers, customers, investors, governments, is directly influenced by our human rights actions. Within our organisation and industry, we are firmly committed to adhering to the Universal Declaration of Human Rights (UDHR) as our guiding beacon, ensuring the safeguarding of the rights of each person and

fostering a workplace culture steeped in respect and compassion.

Our aim is to become signatories to the Voluntary Principles on Security and Human Rights (VPSHR) by 2025. To accomplish this objective, we have established a Security Community of Practice, tasked with the implementation of VPSHR requirements. Our group technical standard on security management enlists details on conducting necessary security risk assessments, to identify potential security threats, furthermore, devise a security plan to address these risks. We regularly provide training to our security personnel, who serve as our primary line of defense and initial reporters in cases of human rights violations. To raise awareness about human rights and underscore the significance of responsible security practices, we actively collaborate with both private and public security

forces, fostering dialogue and sharing our corporate approach to enhance the overall security landscape. We have also established a grievance mechanism to enable communities to express concerns about the security arrangements and acts of security personnel. In alignment with our security plan, we regularly inspect and monitor our security measures for any unauthorized access to our property and assets. The identified issues are recorded, addressed, and closed in a defined timescale. Another crucial aspect of our security plan is its audit. Regular audits are conducted to assess the effectiveness of the arrangements and risk control techniques. Findings from audits are acted upon, and the security plan is updated as necessary.

### Management Approach

#### Our unwavering commitment to human rights

- At Vedanta Aluminium, we are deeply committed to sustainable development and preserving human dignity. Our pledge includes conducting business ethically, fulfilling our social responsibilities as an employer, and safeguarding the rights of all those affected by our operations. We adhere to global standards such as the United Nations Declaration on Human Rights and the UN Guiding Principles of Business and Human Rights. Our commitment extends to employees, business partners, communities, and all individuals impacted by our operations, including those in our supply chain. Our Human Rights Policy aligns with the United Nations Guiding Principles on Business and Human Rights, International Labor Organization conventions, the Universal Declaration of Human Rights, and relevant laws. We are resolute in eliminating unacceptable practices like human trafficking, forced labor, child labor, and discrimination and support freedom of association and the right to collective bargaining throughout our supply chain. Prioritizing our human rights commitments is paramount to our valued stakeholders. For a detailed please visit our Human Rights Policy



Scan to view

Our sustainability team at Vedanta Aluminium continuously enhances its understanding of human rights by collaborating with experts. We consistently review and enhance the policy to effectively manage human rights and share best practices.

- Furthermore, we are dedicated to achieving excellence in Occupational Health, Safety, and Environment (HSE) management, in accordance with globally and nationally recognized standards. This policy forms the bedrock of our best practices and stakeholder engagement initiatives. Our key commitments encompass regulatory compliance, target establishment, continuous monitoring, and enhancement, fostering a positive HSE culture, stakeholder communication, employee well-being, resource preservation, responsible waste management, addressing climate risks, and educating stakeholders. For more information, please visit our HSES Policy



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Our HSE policy applies universally to our subsidiaries, operations, employees, and partners, including new acquisitions, throughout the operational cycle. We conduct comprehensive assessments at our sites covering Health, Safety, Environment (HSE), and Social Risk, which encompasses evaluating human rights-related risks. Our proactive human rights due diligence empowers us to rectify potential violations within our value chain, and our Human Rights Policy mandates such diligence before commencing new projects or collaborating with suppliers. Business leaders oversee HSE performance, while line managers ensure the implementation of standards. Regular tracking and reporting guarantee the ongoing management of HSE and knowledge sharing. The policy undergoes periodic reviews and updates.

Both these policies are integral components of Vedanta's Sustainability Framework.

Human Rights Assessment and Risk Management in the last three years			
Category	% of operation assessed last year	% of total assessed where risks have been identified	% of risk with mitigation actions taken
Own Operations	100%	0%	0%
Business partners and Tier-1 suppliers	11%	0%	0%



At Vedanta Aluminium, our commitment to safeguarding the human rights of both our direct and indirect workforce runs deep. We have implemented a robust framework that includes grievance redressal mechanisms and labor management cells throughout all our facilities, ensuring the well-being and swift resolution of concerns raised by our workforce.

Within the framework of our Human Rights program, we conduct regular and rigorous training sessions addressing workplace harassment and discrimination. These sessions are designed to ensure that all our employees possess a profound understanding of the ethical standards linked to human rights. These training initiatives extend to both our long-standing staff, including those who have transferred from other locations, and our newly onboarded employees.

### Employee Training on Human Rights

Business Unit	Number of new hires who have received training	Number of employees who have received refresher training	Total number of hours imparted	Share of regular employees trained
BALCO	207	653	15,860	48.51%
Vedanta Aluminium (Jharsuguda)	514	25,31	12,180	100%
Vedanta Aluminium (Lanjigarh)	417	622	1,039	100%
Sector	1,138	3,806	29,079	85.31%

### Security personnel trained in human rights policies or procedures

Business Unit	Trained	Total	Percentage
BALCO	182	1,115	16%
Vedanta Aluminium (Jharsuguda)	447	447	100%
Vedanta Aluminium (Lanjigarh)	426	426	100%
Sector	1,055	1,988	53%

Furthermore, we maintain an uncompromising stance against sexual harassment and all forms of discrimination. Our procedures for handling harassment-related complaints are crystal clear and well-defined. These complaints can be officially registered through our Internal Complaints Committee (ICC) or by sending an email to [sexualharassment@vedanta.co.in](mailto:sexualharassment@vedanta.co.in). The ICC promptly initiates an inquiry into every reported case, adhering to the principles of natural justice and in strict compliance with the regulations stipulated in the Prevention of Sexual Harassment (POSH) Act and its accompanying rules. The ICC conducts thorough investigations and delivers its findings within a maximum period of 90 days. In situations where an investigation substantiates a case of sexual harassment, we take immediate and appropriate punitive actions, including the potential termination of employment. Conversely, if an investigation reveals that a complaint was falsely registered, the individual responsible for the false accusation is subject to disciplinary action, which may result in termination.





### Discrimination and Sexual Harassment cases FY2022-23

	BALCO	Jharsuguda	Lanjigarh
Number of sexual harassment cases opened	1	7	1
Number of sexual harassment cases upheld and found correct	1	6	1
Number of sexual harassment cases closed	1	7	1

We uphold the fundamental right to freedom of association, as endorsed by collective bargaining agreements. These agreements represent a harmonious accord reached between our management and union representatives, covering essential aspects such as remuneration, allowances, incentives, working conditions, health and safety, and other matters of paramount importance to our workforce. By the conclusion of this reporting period, 25% of our employees in the Aluminium Sector, including those from our business partners (excluding those from our Jharsuguda and Lanjigarh sites), were encompassed by these collective bargaining agreements.

25% of total Aluminium Sector employees covered under collective bargaining.

Within our supply chain, there is a potential for human rights breaches to occur across the extended network. We assert a strong requirement for our suppliers and vendors to establish robust controls that shield their operations from recognized risks and vulnerabilities associated with human rights.

Our Supplier Due Diligence Policy is an integral element incorporated within our supplier contracts. We are dedicated to elevating adherence to both internal and external principles through rigorous onboarding procedures, in-depth screenings, meticulous inspections, and thorough audits. For further insights please consult our Supplier Due Diligence Policy.



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# GRI Content Index

## General Disclosures

GRI Standard	Disclosure	Response
<b>GRI 1: Foundation 2021 [GRI 1 does not include any disclosures]</b>		
<b>GRI 2: General Disclosures 2021</b>		
<b>Organization and its reporting practices</b>		
Organization and its reporting practices	2-1-a: Legal Name	<b>Aluminium &amp; Power division, Vedanta Limited</b>
	2-1-b: Ownership and Legal Form	<b>Vedanta Annual Report 2022-23: Page 15 (Shareholding distribution)</b>
	2-1-c: Location of headquarters	<b>Aluminium, Vedanta Sustainability Report 2022-23: Back Cover</b> Floor 3, Scope Complex, Core 6, Lodhi Road, New Delhi, Delhi 110003
	2-1-d: Countries of operations	<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 18 (Operations and Assets)</b>
	2-2-a: Entities included in Sustainability Reporting	Jharsuguda, Lanjigarh, Korba (BALCO)
	2-2-b: audited consolidated financial statements or financial information filed on public record, specify the differences between the list of entities included in its financial reporting and the list included in its sustainability reporting	<b>Vedanta Resources Limited Annual Report 2022-23: Page 2 (Consolidated Financials)</b> It includes all the other divisions, subsidiaries, joint ventures etc. of Vedanta Limited. <a href="https://www.vedantalimited.com/vedanta/vedanta_ir_2022-23.pdf">https://www.vedantalimited.com/vedanta/vedanta_ir_2022-23.pdf</a>
	2-2-c:	<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 4-5 (About this report)</b>
	2-3-a: Reporting period and frequency of sustainability reporting	Apr'22-Mar'23 <b>Aluminium, Vedanta Sustainability Report 2022-23: Beginning of report (About this report)</b>
	2-3-b: Alignment of reporting period with financial reporting	Yes
	2-3-c: Publication date	15 November 2023
	2-3-d: Contact Point	Sonal Choithani
	2-4: Restatements of information (with reason and effect)	Long term vision of zero harm, zero waste and zero discharge continues to form the basis of our ESG practices. There are no restatements of information from last year's SD Report.

GRI Standard	Disclosure	Response
	2-5: External Assurance	<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 163</b> (Assurance Statement)
<b>Activities and workers</b>		
Activities and workers	2-6: Activities, value chain and other business relationships	<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 18</b> (Operations and Assets)
		<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 19-21</b> (Markets and Products)
	2-7-a,b,d: Employees	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 98-101</b> (Diversity, Equal Opportunity and Inclusion)
	2-7-c: Employees	Methodology for FTE: at the end of the reporting period head count on 31.03.23
	2-7-e: Describe significant fluctuations in the number of employees during the reporting period and between reporting periods.	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 98-101</b> (Diversity, Equal Opportunity and Inclusion)
	2-8-a: Workers who are not employees	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 98-101</b> (Diversity, Equal Opportunity and Inclusion) Most common type of workers and type of work they perform
	2-8-b: Methodologies used to count	Methodology for business partner employees: at the end of the reporting period head count on 31.03.23
	2-8-c: Describe significant fluctuations in the number of employees during the reporting period and between reporting periods.	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 98-101</b> (Diversity, Equal Opportunity and Inclusion)
<b>Governance</b>		
Governance	2-9: Governance structure and composition	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 29-31</b> (Sustainability Governance)
	2-10: Nomination and selection of the highest governance body	<b>Vedanta Annual Report 2022-23, Pages: 257-258</b> (Process for Board and Senior Management Appointments) <b>Vedanta Annual Report 2022-23, Pages: 257-258</b> (Policy on Directors' Appointment & Remuneration)
	Executive-level responsibility for economic, environmental, and social topics	As per updated Terms of Reference of the Board level ESG Committee, the Group HSE Head and ESG Director are permanent invitees to the Committee meetings. The Committee comprises of Mr. Upendra Kumar Sinha as the Chairperson; Ms. Priya Agarwal, Mr. Akhilesh Joshi and Mr. Sunil Duggal as the Members.
	2-11: Chair of the highest governance body	The Chairperson of the Board of Directors is a Non-Executive Director. <b>Vedanta Annual Report 2022-23, Page: 243</b> (Separate role of Chairman & CEO) There is clear demarcation of the roles and responsibilities of the Chairman of the Board and the CEO as the positions are held by separate individuals



GRI Standard	Disclosure	Response
	2-11-b: Conflicts of interest	<p><b>Vedanta Annual Report 2022-23, Page: 243</b> (Directors'/ KMPs/ SMPs conflicts of interest)</p> <p><b>Vedanta Annual Report 2022-23, Page: 246</b> (Nomination &amp; Remuneration Committee)</p> <p>The Committee fulfils the composition requirement as required under the provisions of the Companies Act, 2013 and Listing Regulations. In the event of a conflict of interest, the Chairman of the Board abstains from the discussions and other members of the NRC participate and vote. Other Directors, members of the senior management team, representatives from Human Resource department and external advisers may attend meetings at the invitation of the Committee, as appropriate. In respect of each of its meetings, the Chairman of the NRC provides an update to the Board.</p>
	2-12: Role of highest governance body in overseeing the management of impacts	<p><b>Vedanta Annual Report 2022-23, Page: 262-263</b> (Directorate, Key Managerial Personnel and Senior Management Personnel)</p> <p>The Board of Directors of the Company provide entrepreneurial leadership and plays a crucial role in providing strategic supervision, overseeing the management performance, and long-term success of the Company while ensuring sustainable shareholder value. Driven by its guiding principles of Corporate Governance, the Board's actions endeavour to work in best interest of the Company. The Directors hold a fiduciary position, exercises independent judgement, and plays a vital role in the oversight of the Company's affairs. Our Board represents a tapestry of complementary skills, attributes, perspectives and includes individuals with financial experience and a diverse background.</p>
	2-13: Delegation of responsibility for managing impacts	<p>In line with upholding our core commitment to Environmental, Social and Governance (ESG) priorities, the Board of Directors of the Company has approved the enhancement of the scope of the existing Board Sustainability Committee and upgraded it to Board ESG Committee with effect from July 26, 2021, to strengthen Board level rigor and advice into all aspects of ESG. The board of ESG committee like the erstwhile sustainability committee will report to highest governance body.</p>
	2-14: Role of highest governance body in sustainability reporting	<p>There is an internal approval system in the Company for appointment of external assurance provider for the sustainability report.</p>
	2-15: Conflicts of interest	<p><b>Vedanta Annual Report 2022-23, Pages: 248, 257, 302-303</b></p>

GRI Standard	Disclosure	Response
	2-16: Communication of critical concerns	<b>Vedanta Annual Report 2022-23, Pages: 310-312 (VSAP)</b> VSAP is our sustainability risk assurance tool, which is used to assess the compliance of all our businesses with the Vedanta Sustainability Framework. This meticulously developed assurance process helps embed sustainable development into every activity that we undertake. VSAP is an annual process with clear tracking of results by the Board level Committee, and the Executive Committee, which in turn reports to the Board. The Board level Committee keeps the Board informed about the developments arising from the HSE & Sustainability aspects of the business. <b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 31</b>
	2-17: Collective knowledge of the highest governance body	<b>Vedanta Annual Report 2022-23, Page: 106</b> (Corporate Governance Framework of which ESG forms an integral part) Vedanta Annual report, Page:, Process of providing ESG training by third party to highest executives is underway. The Company assesses the key qualifications, skills and attributes of Directors which are taken into consideration while nominating them to serve on the Board. Familiarity with ESG issues associated with workplace health and safety, asset integrity, environment and social responsibility, and communities forms a part of the assessment criteria in the skill matrix.
	2-18: Evaluation of the performance of the highest governance body	<b>Vedanta Annual report 2022-23, Page: 242, 247</b> (Performance Evaluation)
	2-19: Remuneration policies	<b>Vedanta Annual report 2022-23, Pages: 19, 85, 186-187, 359, 413, 536-537</b> (Compensation Governance Practices at Vedanta, Managerial Remuneration, Employee Information and Related Disclosures, Policy on Directors' Appointment & Remuneration, Board & Executive Leadership Remuneration Policy)
	2-20: Process to determine remuneration	<b>Vedanta Annual report 2022-23, Pages: 186-187, 257-258</b> (Compensation Governance Practices at Vedanta, Managerial Remuneration, Employee Information and Related Disclosures)
	2-21: Annual total compensation ratio	The annual total compensation ratio is 0.49.
<b>Strategy, policy and practices</b>		
Strategy, policy and practices	2-22: Statement on sustainable development strategy	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 10-11</b> (From Chairman's Desk) <b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 12-13</b> (From CEO's Corner)
	2-23: Policy commitments	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127</b> (Human Rights)

GRI Standard	Disclosure	Response
	Precautionary principle or approach.	Vedanta seeks to ensure that all of our operations follow a stringent application of environmental and social principles. All of our businesses undergo an Environmental and Social Impact Assessment before beginning operations. Any findings from the ESIA are considered and a mitigation plan developed. We are also committed to ensuring that we follow the principles of Free, Prior, Informed Consent (FPIC) in communities that consist of populations of indigenous peoples.
	2-24: Embedding policy commitments	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 56-57, 32-33, 27-31</b> (Business Ethics and Governance, Code of Business Conduct and Ethics, Transforming for Good)
	2-25: Processes to remediate negative impacts	Grievance mechanism
	2-26: Mechanisms for seeking advice and raising concerns	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 32-33</b> (Code of business conduct and ethics) Vedanta Code of Conduct & Business ethics Policy: Seeking Help and Information - If the supervisor cannot answer your question or if you do not feel comfortable contacting your supervisor, contact the Secretarial/Legal Department. One may also seek help from or submit information to the Company by writing to the Company at the email address <a href="mailto:sgl.whistleblower@vedanta.co.in">sgl.whistleblower@vedanta.co.in</a> . You may remain anonymous and will not be required to reveal your identity in your communication to the Company. <b>Vedanta Annual Report 2022-23: Page: 281</b> Vigil mechanism/ Whistle-Blower Policy
	2-27: Compliance with laws and regulations	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 32-33,</b> (Code of Business Conduct and Ethics)
	2-28: Membership associations	Vedanta, Aluminium is a member of various industry associations in the countries where it operates (Eg: Indian Aluminium Association, India Power Association, FICCI, Confederation of India Industry).
<b>Stakeholder Engagement</b>		
Stakeholder Engagement	2-29: Approach to stakeholder engagement	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 45-46</b> (Stakeholder Engagement)
	2-30: Collective bargaining agreements	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127</b> (Human Rights)
<b>GRI 3: Material Topics 2021</b>		
<b>Material topics</b>		
Material topics	3-1: Process to determine material topics	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 47-53</b> (Materiality Assessment)
	3-2: List of material topics	
	3-3: Management of material topics	

# Environment

GRI Standard	Disclosure	Response																																												
ENERGY																																														
GRI 103: Management Approach 2016		There is global consensus that climate change is one of the biggest threats to humankind. Exposure to one or more impacts of climate change is gradually increasing across all the corners of the world. Since aluminium production is a capital-driven and energy-intensive industry, we continually strive towards exploring and adopting commercially feasible opportunities to minimise the carbon footprint across our operations. Our climate impact reduction targets and initiatives are in complete alignment with the Nationally Determined Contributions (NDC) submitted by the Government of India.																																												
GRI 302: Energy 2016	302-1: Energy consumption within the organization	<b>Aluminium, Vedanta Sustainability Report 2021-22: Pages 65-71, 72-74</b> (Climate Change and decarbonisation and Energy Management) Unit wise breakup of total energy consumption (GJ) within organisation is as below: <table><tr><th>Business</th><th colspan="4">Total Energy (GJ)</th></tr><tr><td></td><td></td><td><b>FY 2022-23</b></td><td><b>FY 2021-22</b></td><td><b>FY 2020-21</b></td><td><b>FY2019-20</b></td></tr><tr><td rowspan="3">Aluminium Business</td><td>BALCO</td><td>84,638,061</td><td>91,521,996</td><td>90,378,188</td><td>9,19,88,245</td></tr><tr><td>Lanjigarh</td><td>20,446,719</td><td>20,703,507</td><td>19,948,377</td><td>1,96,45,071</td></tr><tr><td>Jharsuguda</td><td>217,203,878</td><td>231,301,851</td><td>220,450,018</td><td>20,63,42,221.32</td></tr><tr><td rowspan="2">Power Business</td><td>BALCO IPP</td><td>10,318,782</td><td>24,691,924</td><td>32,486,150</td><td>3,12,93,487.28</td></tr><tr><td>Jharsuguda IPP</td><td>33,065,095</td><td>21,128,510</td><td>28,392,936</td><td>78,28,452.49</td></tr><tr><td><b>Total</b></td><td></td><td>365,672,536</td><td>389,347,788</td><td>391,655,668</td><td>35,70,97,477.92</td></tr></table> <p>We do not have energy consumption outside the organisation.</p>	Business	Total Energy (GJ)						<b>FY 2022-23</b>	<b>FY 2021-22</b>	<b>FY 2020-21</b>	<b>FY2019-20</b>	Aluminium Business	BALCO	84,638,061	91,521,996	90,378,188	9,19,88,245	Lanjigarh	20,446,719	20,703,507	19,948,377	1,96,45,071	Jharsuguda	217,203,878	231,301,851	220,450,018	20,63,42,221.32	Power Business	BALCO IPP	10,318,782	24,691,924	32,486,150	3,12,93,487.28	Jharsuguda IPP	33,065,095	21,128,510	28,392,936	78,28,452.49	<b>Total</b>		365,672,536	389,347,788	391,655,668	35,70,97,477.92
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	302-2: Energy Consumption outside of the organisation																																													
	302-3: Energy Intensity	Specific Energy Consumption (GJ/Production Output)																																												
		Intensity Within the organization																																												
	Business	<table><tr><td></td><td><b>FY 2022-23</b></td><td><b>FY 2021-22</b></td><td><b>FY 2020-21</b></td><td><b>FY2019-20</b></td></tr><tr><td>Aluminium Business</td><td>BALCO</td><td>52.49</td><td>51.76</td><td>52.16</td><td>53.0</td></tr><tr><td></td><td>Lanjigarh</td><td>7.17</td><td>7.15</td><td>7.22</td><td>7.22</td></tr><tr><td></td><td>Jharsuguda</td><td>51.97</td><td>52.59</td><td>53.04</td><td>53.29</td></tr><tr><td rowspan="2">Power Business</td><td>BALCO IPP</td><td>10.06</td><td>10.82</td><td>10.30</td><td>9.56</td></tr><tr><td>Jharsuguda IPP</td><td>10.16</td><td>10.00</td><td>9.99</td><td>9.98</td></tr></table>		<b>FY 2022-23</b>	<b>FY 2021-22</b>	<b>FY 2020-21</b>	<b>FY2019-20</b>	Aluminium Business	BALCO	52.49	51.76	52.16	53.0		Lanjigarh	7.17	7.15	7.22	7.22		Jharsuguda	51.97	52.59	53.04	53.29	Power Business	BALCO IPP	10.06	10.82	10.30	9.56	Jharsuguda IPP	10.16	10.00	9.99	9.98										
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	302-4: Reduction of energy consumption.	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 65-71, 72-74</b> (Climate Change and decarbonisation and Energy Management)																																												
	302-5: Reductions in energy requirements of products and services	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 72-74</b> (Energy Management)																																												



GRI Standard	Disclosure	Response																																																					
WATER																																																							
GRI 103: Management Approach 2016		Our water management policy guides our efforts towards exploration of opportunities for reducing water consumption across our operational portfolio and encourages increased water reutilization and zero liquid discharge from our operations. The policy channelises our water stewardship campaigns in line-with our commitment towards UN SDG-6: Clean Water and Sanitation. We are committed to optimise water utilisation at our facilities, while supporting the local communities for addressal of water-related issues.																																																					
	303-1: Interactions with water as a shared resource	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 27, 76-82 (Water Management)</b> <b>Vedanta Sustainability Framework</b>																																																					
	303-2: Management of water discharge related impacts	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 27, 76-82 (Water Management)</b> <b>Transforming for Good</b>																																																					
GRI 303: Water 2016	303-3: Water withdrawal	<table><tr><th rowspan="2">Unit (m³)</th><th colspan="2">FY 2022-23</th><th colspan="2">FY 2021-22</th><th colspan="2">FY 2020-21</th><th colspan="2">FY 2019-20</th></tr><tr><th>Ground Water (m³)</th><th>Surface Water (m³)</th><th>Ground Water (m³)</th><th>Surface Water (m³)</th><th>Ground Water (m³)</th><th>Surface Water (m³)</th><th>Ground Water (m³)</th><th>Surface Water (m³)</th></tr><tr><td>BALCO</td><td>0</td><td>2,50,36,355</td><td>0</td><td>3,00,31,250</td><td>0</td><td>2,91,85,025</td><td>0</td><td>2,85,89,920</td></tr><tr><td>Lanjigarh</td><td>0</td><td>62,59,247</td><td>0</td><td>54,48,365</td><td>0</td><td>48,15,951</td><td>0</td><td>42,38,925</td></tr><tr><td>Jharsuguda</td><td>0</td><td>6,48,94,268</td><td>0</td><td>7,20,05,617</td><td>0</td><td>7,54,16,297</td><td>0</td><td>4,33,96,753</td></tr><tr><td><b>Total</b></td><td>0</td><td>9,61,89,870</td><td>0</td><td>10,74,85,232</td><td>0</td><td>10,94,17,273</td><td>0</td><td>7,62,25,598</td></tr></table> <p>*BALCO IPP and Jharsuguda IPP water consumption is included in the above matrix. The water is withdrawn from Hirakud reservoir for Jharsuguda, Kesinga river for Lanjigarh and Hasdeo river for BALCO. Hirakud and Jharsuguda are low water stress areas (&lt;10%). <b>Lanjigarh and BALCO lie in medium-high water stress category (20-40%)</b>. All is freshwater withdrawal.</p>	Unit (m³)	FY 2022-23		FY 2021-22		FY 2020-21		FY 2019-20		Ground Water (m³)	Surface Water (m³)	Ground Water (m³)	Surface Water (m³)	Ground Water (m³)	Surface Water (m³)	Ground Water (m³)	Surface Water (m³)	BALCO	0	2,50,36,355	0	3,00,31,250	0	2,91,85,025	0	2,85,89,920	Lanjigarh	0	62,59,247	0	54,48,365	0	48,15,951	0	42,38,925	Jharsuguda	0	6,48,94,268	0	7,20,05,617	0	7,54,16,297	0	4,33,96,753	<b>Total</b>	0	9,61,89,870	0	10,74,85,232	0	10,94,17,273	0	7,62,25,598
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<b>Total</b>	0	9,61,89,870	0	10,74,85,232	0	10,94,17,273	0	7,62,25,598																																															
	303-4: Water discharge	<p>Zero water discharge</p> <p><b>Aluminium, Vedanta Sustainability Report 2022-23</b> Our operating philosophy is of 'zero discharge', where the generated wastewater is treated and completely recycled back into process areas. In addition to these initiatives, effluent and sewage treatment plants are installed at many locations for reusing water at primary locations. Wastewater discharge complies with applicable regulatory limits and, at all sites waste water is treated in effluent treatment plants. Metals are precipitated by addition of lime and flocculants with the use of sediment ponds. Wastewater Discharged:</p> <table><tr><th></th><th>FY 2022-23 (m³)</th><th>FY 2021-22 (m³)</th><th>FY 2020-21 (m³)</th><th>FY 2019-20 (m³)</th></tr><tr><td>Business</td><td></td><td></td><td></td><td></td></tr><tr><td>BALCO</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Jharsuguda</td><td>0</td><td>0</td><td>1,20,037</td><td>1,05,304</td></tr><tr><td>Lanjigarh</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td><b>Total</b></td><td>0</td><td>0</td><td>1,20,037</td><td>1,05,304</td></tr></table>		FY 2022-23 (m³)	FY 2021-22 (m³)	FY 2020-21 (m³)	FY 2019-20 (m³)	Business					BALCO	0	0	0	0	Jharsuguda	0	0	1,20,037	1,05,304	Lanjigarh	0	0	0	0	<b>Total</b>	0	0	1,20,037	1,05,304																							
	FY 2022-23 (m³)	FY 2021-22 (m³)	FY 2020-21 (m³)	FY 2019-20 (m³)																																																			
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Jharsuguda	0	0	1,20,037	1,05,304																																																			
Lanjigarh	0	0	0	0																																																			
<b>Total</b>	0	0	1,20,037	1,05,304																																																			

GRI Standard	Disclosure	Response				
	303-5: Water consumption	Same as 303-3 as there is zero water discharge				
		Business	FY 2022-23 (m³)	FY 2021-22 (m³)	FY 2020-21 (m³)	FY2019-20 (m³)
		BALCO	2,50,36,355.00	3,00,31,250	2,91,85,025	2,85,89,920
		Jharsuguda	4,61,88,954	4,84,31,503	5,03,83,922	3,88,97,457
		Lanjigarh	55,11,441	54,48,365	48,15,951	42,38,925
		<b>Total</b>	7,67,36,750	8,39,11,118	8,43,84,898	7,17,26,302

GRI Standard	Disclosure	Response																												
BIODIVERSITY																														
GRI 103: Management Approach 2016		We are committed to minimizing the potential risks to biodiversity which may arise in the areas of our operations. We have a robust Biodiversity Policy and Management Standard in line with international standards and guidelines of the IFC. The policy and management standard guide our actions on avoiding and minimizing any disruption to biodiversity not only during design and operational phase, but also site closure and beyond. To identify the biodiversity related business risks and their management, our businesses seek consultation from experts in this domain.																												
		<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 89-96 (Biodiversity and Ecosystem)</b>																												
GRI 304: Biodiversity 2016	304-1: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<p>The following sites are located adjacent to areas of high biodiversity value or protected areas:</p> <table><tr><th>Business Unit</th><th>Operational site</th><th>Geographic Location</th><th>Position in relation to the protected area or the high biodiversity value area outside protected areas</th><th>Type of operation</th><th>Size of operational site (hectares)</th><th>Type of ecosystem</th></tr><tr><td>Vedanta Ltd.</td><td>Lanjigarh, Odisha</td><td>Latitude- 19°43' to 19°44' North, Longitude - 83°24' to 83°25' East</td><td>Boti, Hatisal, Raula, Ambadala, Patragurha, Niyamgiri, Khambesi, Tirumuri, Dahikhala, Batarilima, Jhimri forest reserve</td><td>Manufacturing of Calcinced Alumina &amp; CGPP for power</td><td>833.31</td><td>Terrestrial &amp; Freshwater</td></tr><tr><td>Vedanta Ltd.</td><td>Jharsuguda, Odisha</td><td>Latitude: 21 46' 27" - 21 48' 10" Longitude: 84 01' 48" - 84 03' 54"</td><td></td><td>Manufacturing/ Production</td><td>834.236</td><td>Terrestrial</td></tr><tr><td>BALCO</td><td>Korba, Chattisgarh</td><td>82o 42' 30" E 22o 21' N</td><td></td><td>Manufacturing/ Production</td><td>1099.98</td><td>Terrestrial</td></tr></table>	Business Unit	Operational site	Geographic Location	Position in relation to the protected area or the high biodiversity value area outside protected areas	Type of operation	Size of operational site (hectares)	Type of ecosystem	Vedanta Ltd.	Lanjigarh, Odisha	Latitude- 19°43' to 19°44' North, Longitude - 83°24' to 83°25' East	Boti, Hatisal, Raula, Ambadala, Patragurha, Niyamgiri, Khambesi, Tirumuri, Dahikhala, Batarilima, Jhimri forest reserve	Manufacturing of Calcinced Alumina & CGPP for power	833.31	Terrestrial & Freshwater	Vedanta Ltd.	Jharsuguda, Odisha	Latitude: 21 46' 27" - 21 48' 10" Longitude: 84 01' 48" - 84 03' 54"		Manufacturing/ Production	834.236	Terrestrial	BALCO	Korba, Chattisgarh	82o 42' 30" E 22o 21' N		Manufacturing/ Production	1099.98	Terrestrial
Business Unit	Operational site	Geographic Location	Position in relation to the protected area or the high biodiversity value area outside protected areas	Type of operation	Size of operational site (hectares)	Type of ecosystem																								
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BALCO	Korba, Chattisgarh	82o 42' 30" E 22o 21' N		Manufacturing/ Production	1099.98	Terrestrial																								

GRI Standard	Disclosure	Response																																				
	304-2: Significant impacts of activities, products, and services on biodiversity	No significant impact was observed on biodiversity as the project is set up on degraded forest and agricultural land. However, floral and faunal species present in the core area were effected during infrastructure construction. Air emission due to CGPP stack & Calciner stack and fugitive dust emission during handling of Bauxite, Coal, Red mud & Fly ash may be the source of pollution.																																				
	304-3: Habitats protected or restored	<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 89-96 (Biodiversity and Ecosystem)</b>																																				
	304-4: IUCN Red List species and national conservation list species with habitats in areas affected by operations.	<table><tr><th>IUCN Classification</th><th>Sector</th><th>BALCO</th><th>JHARSUGUDA</th><th>LANJIGARH</th></tr><tr><td>Critically Endangered</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Endangered</td><td>7</td><td>1</td><td>2</td><td>4</td></tr><tr><td>Vulnerable</td><td>9</td><td>2</td><td>2</td><td>5</td></tr><tr><td>Near Threatened</td><td>4</td><td>1</td><td>1</td><td>2</td></tr><tr><td>Least Concern</td><td>113</td><td>71</td><td>10</td><td>32</td></tr></table>	IUCN Classification	Sector	BALCO	JHARSUGUDA	LANJIGARH	Critically Endangered	0	0	0	0	Endangered	7	1	2	4	Vulnerable	9	2	2	5	Near Threatened	4	1	1	2	Least Concern	113	71	10	32						
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Least Concern	113	71	10	32																																		
	MM1: Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	<p>The mines have been closed for operations. <b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 89-96 (Biodiversity and Ecosystem)</b></p> <table><tr><th>S. No</th><th>Parameter</th><th>Chotia-I (In Hectare)</th><th>Chotia-II (In Hectare)</th><th>Kawardha Mines (In Hectare)</th><th>Mainpat Mines (In Hectare)</th></tr><tr><td>1</td><td>Total Mining Lease Area</td><td>863</td><td>316.826</td><td>626.117</td><td>639.169</td></tr><tr><td>2</td><td>Total Mining Area</td><td>271.69</td><td>41.13</td><td>387.41</td><td>393.63</td></tr><tr><td>3</td><td>Total Land reclaimed</td><td>258.97</td><td>29.82</td><td>371.4</td><td>367.84</td></tr><tr><td>4</td><td>Total land rehabilitated</td><td>258.97</td><td>20.27</td><td>371.4</td><td>350.5</td></tr><tr><td>5</td><td>Total area covered by water charge</td><td>12.72</td><td>8.4</td><td>5.2</td><td>2.15</td></tr></table>	S. No	Parameter	Chotia-I (In Hectare)	Chotia-II (In Hectare)	Kawardha Mines (In Hectare)	Mainpat Mines (In Hectare)	1	Total Mining Lease Area	863	316.826	626.117	639.169	2	Total Mining Area	271.69	41.13	387.41	393.63	3	Total Land reclaimed	258.97	29.82	371.4	367.84	4	Total land rehabilitated	258.97	20.27	371.4	350.5	5	Total area covered by water charge	12.72	8.4	5.2	2.15
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	MM2: The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	All our operations have developed Biodiversity Management Plan with 100% coverage.																																				

GRI Standard	Disclosure	Response																																													
EMISSIONS																																															
GRI 103: Management Approach 2016		<p>There is global consensus that climate change is one of the biggest threats to humankind. Exposure to one or more impacts of climate change is gradually increasing across all the corners of the world. Since aluminium production is a capital-driven and energy-intensive industry, we continually strive towards exploring and adopting commercially feasible opportunities to minimise the carbon footprint across our operations. Our climate impact reduction targets</p> <p>and initiatives are in complete alignment with the Nationally Determined Contributions (NDC) submitted by the Government of India. We consistently track and manage our carbon footprint with respect to achievement of these commitments.</p> <p>We nurture the culture of management decision-making to incorporate considerations of potential environmental impacts, in order to further our objective of significantly minimising the carbon footprint of our aluminium operations. Our Energy and Carbon Management Policy and Performance Standard guides our efforts towards adoption of best in the industry practises and deployment of sophisticated technologies to consistently reduce our greenhouse gas (GHG) emissions. We are cognizant of the fact that reducing our energy consumption and shifting to low carbon energy mix is central to Vedanta's pledge of moving towards carbon neutrality.</p>																																													
GRI 305: Emissions 2016	305-1: Direct (Scope 1) GHG emissions.	<p><b>Aluminium, Vedanta Sustainability Report 2022-23: Page 71 (GHG Emissions)</b></p> <p>Our business-wise Scope I emissions are:</p> <table><tr><th colspan="2">Business</th><th colspan="4">Scope I Emission (metric tonnes CO<sub>2</sub> equivalents)</th></tr><tr><th></th><th></th><th>FY 2022-23</th><th>2021-22</th><th>FY 2020-21</th><th>FY 2019-20</th></tr><tr><td rowspan="3">Aluminium</td><td>BALCO</td><td>87,47,945</td><td>9750329</td><td>98,00,513</td><td>99,88,944</td></tr><tr><td>Jharsuguda</td><td>2,13,98,139</td><td>23895267</td><td>2,39,26,260</td><td>2,28,89,717</td></tr><tr><td>Lanjigarh</td><td>18,45,992</td><td>1873120</td><td>17,87,966</td><td>17,86,097</td></tr><tr><td rowspan="2">Power Business</td><td>BALCO IPP</td><td>9,30,058</td><td>2372262</td><td>31,21,348</td><td>30,06,835</td></tr><tr><td>Jharsuguda IPP</td><td>31,78,797</td><td>2030074</td><td>27,28,097</td><td>7,52,210</td></tr><tr><td>Total</td><td></td><td>3,61,00,932</td><td>3,99,21,052</td><td>4,13,64,184</td><td>3,84,23,803</td></tr></table>	Business		Scope I Emission (metric tonnes CO <sub>2</sub> equivalents)						FY 2022-23	2021-22	FY 2020-21	FY 2019-20	Aluminium	BALCO	87,47,945	9750329	98,00,513	99,88,944	Jharsuguda	2,13,98,139	23895267	2,39,26,260	2,28,89,717	Lanjigarh	18,45,992	1873120	17,87,966	17,86,097	Power Business	BALCO IPP	9,30,058	2372262	31,21,348	30,06,835	Jharsuguda IPP	31,78,797	2030074	27,28,097	7,52,210	Total		3,61,00,932	3,99,21,052	4,13,64,184	3,84,23,803
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	305-2: indirect (Scope 2) GHG emissions	<p><b>Aluminium, Vedanta Sustainability Report 2022-23: Page 71 (GHG Emissions)</b></p> <p>Our business-wise Scope II emissions are:</p> <table><tr><th colspan="2">Business</th><th colspan="4">Scope II Emission (metric tonnes CO<sub>2</sub> equivalents)</th></tr><tr><th></th><th></th><th>FY 2022-23</th><th>FY 2021-22</th><th>FY 2020-21</th><th>FY 2019-20</th></tr><tr><td rowspan="3">Aluminium</td><td>BALCO</td><td>4,64,162</td><td>1,55,715</td><td>2,143</td><td>0</td></tr><tr><td>Jharsuguda</td><td>53,99,730</td><td>19,56,916</td><td>5,10,837</td><td>8,02,664</td></tr><tr><td>Lanjigarh</td><td>22,443</td><td>4856</td><td>6,595</td><td>1,593</td></tr><tr><td rowspan="2">Power Business</td><td>BALCO IPP</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Jharsuguda IPP</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Total</td><td></td><td>58,86,335</td><td>21,17,487</td><td>5,19,576</td><td>8,04,257</td></tr></table>	Business		Scope II Emission (metric tonnes CO <sub>2</sub> equivalents)						FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20	Aluminium	BALCO	4,64,162	1,55,715	2,143	0	Jharsuguda	53,99,730	19,56,916	5,10,837	8,02,664	Lanjigarh	22,443	4856	6,595	1,593	Power Business	BALCO IPP	0	0	0	0	Jharsuguda IPP	0	0	0	0	Total		58,86,335	21,17,487	5,19,576	8,04,257
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GRI Standard	Disclosure	Response											
305-3: Other indirect (Scope 3) GHG emissions		FY2022-23					FY 2021-22						
	Business		Jharsuguda	BALCO	Lanjigarh	Jharsuguda	BALCO	Lanjigarh					
	Aluminium		55,67,124	19,91,987	5,42,966				50,05,928	12,37,119	5,40,241		
	Total*		81,02,077					67,83,289					
	TCO <sub>2</sub> e/MT	FY2022-23					FY 2021-22					FY 2019-20	
305-4: GHG emissions intensity	Aluminium	Scope 1 + Scope 2 GHG Emissions (TCO2e)	Production (MT)	GHG Intensity (TCO2e/MT)	Scope 1 + Scope 2 GHG Emissions (TCO2e)	Production (MT)	GHG Intensity (TCO2e/MT)	Scope 1 + Scope 2 GHG Emissions (TCO2e)	Production (MT)	GHG Intensity (TCO2e/MT)	GHG Intensity (TCO2e/MT)		
	Balco	92,12,107	5,66,430	16.26	99,06,044	5,81,847	17.03	98,02,656	5,69,645	17.21	99,88,944		
	Lanjigarh	18,68,435	18,54,926	1.01	18,77,976	19,69,212	0.95	17,94,561	18,47,778	0.97	17,87,600		
	Jharsuguda	2,67,97,869	17,19,977	15.58	2,58,52,183	16,86,697.13	15.33	2,44,37,097	13,99,876	17.46	2,36,92,381		
	TCO <sub>2</sub> e/US\$ mn	FY2022-23					FY 2021-22					FY 2019-20	
	Business	Scope 1 + Scope 2 GHG Emissions (TCO2e)	Revenue (US\$ mn)	GHG Intensity (TCO2e/US\$ mn)	Scope 1 + Scope 2 GHG Emissions (TCO2e)	Revenue (US\$ mn)	GHG Intensity (TCO2e/US\$ mn)	Scope 1 + Scope 2 GHG Emissions (TCO2e)	Revenue (US\$ mn)	GHG Intensity (TCO2e/US\$ mn)	GHG Intensity (TCO2e/US\$ mn)		
305-5: Reduction of GHG emissions	Aluminium	3,78,78,411			3,76,36,203			3,60,34,315					
	Power	41,08,855			44,02,336			58,49,445					
	Total	4,19,87,267	6809	6.167	4,20,38,539.00	5,081	8,274	4,18,83,760	4,196	9,982	4,048		
	Aluminium, Vedanta Sustainability Report 2022-23: Page 71 (GHG Emissions)												
305-6: Emissions of ozone-depleting substances (ODS)													
305-7: NOx, SOx, and other significant air emissions.	Aluminium, Vedanta Sustainability Report 2022-23: Page 75-76 (Air Emissions and Quality)												
		FY 2022-23 (in MT)					FY2021-22 (in MT)					FY2019-20 (in MT)	
	Business	PM Emissions	SOx Emissions	NOx Emissions	PM Emissions	SOx Emissions	NOx Emissions	PM Emissions	SOx Emissions	NOx Emissions	PM Emissions	SOx Emissions	NOx Emissions
	BALCO*	3,697	1,21,072	19,386	2,125	48,437	22,245	0	0	0	0	0	0
	Jharsuguda	5,329	1,44,842	44,136	5,082	1,26,842	40,276	5,578	1,29,957	43,318	4,581	1,35,908	33,241
	Lanjigarh	156	4,474	1,928	240	11,269	3,057	182	13,210	3,946	337	9,751	3,163
Total	9,181	2,70,388	65,450	7,447	1,86,548	65,578	5,760	1,43,167	47,264	4,918	1,45,659	36,403	

\* Emission from BALCO are from fuel (coal and HFO) combustion, calculated based on sulphur content present in the fuel.

GRI Standard	Disclosure	Response
<b>EFFLUENTS AND WASTE</b>		
306-1: Waste generation and significant waste impacts	Aluminium, Vedanta Sustainability Report 2022-23: Pages 82-87 (Waste Management)	
	306-2: Management of significant waste related impacts	Vedanta's Resource Use and Waste Management Standard, documented in the VSF defines the procedures for the safe and efficient handling of wastes generated at our operations. This standard assimilates ICM's hierarchy of waste management: exploring opportunities for waste avoidance, reduction, recovery, and recycling (either within our own premises or sold to authorized third parties), with the last resort being disposal in authorised landfills or by incineration.
	306-3: Waste generated	Aluminium, Vedanta Sustainability Report 2022-23: Pages 83-88 (Waste Management)
	306-4: Waste diverted from disposal	Aluminium, Vedanta Sustainability Report 2022-23: Pages 83-88 (Waste Management)
306-5: Waste directed to disposal	MM3: Total amounts of overburden, rock, tailings, and sludge's and their associated risks.	Business
		FY2022-23
		FY 2021-22
		FY 2020-21
		FY 2019-20
		BALCO*
		Jharsuguda
306-5: Waste directed to disposal	MM3: Total amounts of overburden, rock, tailings, and sludge's and their associated risks.	Lanjigarh
		Total
		*5 significant hazardous wastes are reported for BALCO namely Spent pot lining, Aluminium dross, Lab Solvent, Biomedical waste and used lead acid batteries
		Aluminium, Vedanta Sustainability Report 2022-23: Pages 83-88 (Waste Management)
306-5: Waste directed to disposal	MM3: Total amounts of overburden, rock, tailings, and sludge's and their associated risks.	FY 2022-23
		FY 2021-22
		FY 2020-21
		FY 2019-20
306-5: Waste directed to disposal	MM3: Total amounts of overburden, rock, tailings, and sludge's and their associated risks.	Overburden
		Tailings
		Aluminium, Vedanta Sustainability Report 2022-23: Pages 83-88 (Waste Management, Bauxite Residue and Ash Management)
		For more details please refer to: Vedanta's commitments to Sustainable Tailings management at - <a href="https://atagance.vedantaresources.com/news/fact-sheets">https://atagance.vedantaresources.com/news/fact-sheets</a>

GRI Standard	Disclosure	Response
<b>SUPPLIER ENVIRONMENTAL ASSESSMENT</b>		
GRI 103: Management Approach 2016		At each of our businesses, the vendor on-boarding process requires vendor disclosure of their HSE & Sustainability systems. In addition, project specific requirement may require additional screening of vendors for the environmental management systems. The screening mandates a score of minimum 40 for onboarding. <b>Aluminium, Vedanta Sustainability Report 2021-22: Pages 42-44</b> (Supply Chain Management)
GRI 308: Supplier Environmental Assessment 2016	308-1: New suppliers that were screen using environmental criteria	<b>Aluminium, Vedanta Sustainability Report 2021-22: Pages 42-44</b> (Supply Chain Management)  All new suppliers undergo Sustainability screening checklist and scoring system before getting registered with us.
	308-2: Negative environmental impacts in the supply chain and actions taken	In case a supplier is categorized as sustainability high risk, appropriate measures are taken to remediate the same or the supplier is not onboarded. 13% of the total suppliers (198 i.e., new suppliers were assessed for environment screening during onboarding stage. 0 suppliers had negative impacts)

GRI Standard	Disclosure	Response																		
EMPLOYMENT																				
GRI 103: Management Approach 2016		We believe that the actions of our people, working across different corporate functions, determine the degree of success of our business goals. As such, it is our primary responsibility to nurture an organisation-wide positive and encouraging culture that fuels their sense of belongingness to the organization, its goals, and commitments. The other equally important priority of our people management system is to build a conducive environment that offers our employees immense opportunities for holistic professional and personal growth. This inherently supports our business strategy that requires our employees to perform their day-to-day activities in complete alignment with our public commitments and core values.																		
401-1: New employee hires and employee turnover		<table><thead><tr><th colspan="4">% of Total full-time employees</th></tr><tr><th>2022-23</th><th>2021-22</th><th>2020-21</th><th>2019-20</th></tr></thead><tbody><tr><td>Employee turnover including retirements and including VRS</td><td>9.29%</td><td>12.60%</td><td>14.35%</td><td>12.6%</td></tr><tr><td>Voluntary employee turnover (Refers to Employee initiated separation)</td><td>8.33%</td><td>11.32%</td><td>7.19%</td><td>10.16%</td></tr></tbody></table>	% of Total full-time employees				2022-23	2021-22	2020-21	2019-20	Employee turnover including retirements and including VRS	9.29%	12.60%	14.35%	12.6%	Voluntary employee turnover (Refers to Employee initiated separation)	8.33%	11.32%	7.19%	10.16%
	% of Total full-time employees																			
	2022-23	2021-22	2020-21	2019-20																
	Employee turnover including retirements and including VRS	9.29%	12.60%	14.35%	12.6%															
	Voluntary employee turnover (Refers to Employee initiated separation)	8.33%	11.32%	7.19%	10.16%															
		Employee Turnover & Attrition by Region (FY2022-23)																		
		BALCO	Jharsuguda	Lanjigarh	Total															
	Employee turnover including retirements and including VRS	Number	131	293	120	544														
		Rate	7.39%	9.62%	11.55%	9.29%														
	Voluntary employee turnover (Refers to Employee initiated separation)	Male	73	221	92	386														
		Female	16	62	25	103														
		Voluntary Employee Turnover Rate																		
		8.33%																		
	Total Employee Exit breakdown																			
Gender	Age	BALCO	VL Lanj	VL Jhar	Total															
		India																		
Male	Below 30 Yrs	40	54	142	236															
	30-50 Yrs	31	39	81	151															
	Above 50	43	2	5	50															
Female	Below 30 Yrs	12	23	51	86															
	30-50 Yrs	4	2	13	19															
	Above 50	1	0	1	2															



GRI Standard	Disclosure	Response					
		Voluntary Employee Exit breakdown					
		Gender	Age	BALCO	VL Lanj	VL Jhar	Total
				India			
		Male	Below 30 Yrs	40	54	141	235
			30-50 Yrs	29	38	77	144
			Above 50	4	0	3	7
		Female	Below 30 Yrs	12	23	50	85
			30-50 Yrs	4	2	12	18
			Above 50	0	0	0	0
				89	117	283	489
		Total New Employees Hire (FY 2022-23)					
		Gender	Age	BALCO	VL Lanj	VL Jhar	Total
				India			
		Male	Below 30 Yrs	88	248	314	650
			31-50 Yrs	22	0	52	74
			Above 50	5	0	11	16
		Female	Below 30 Yrs	89	169	135	393
			31-50 Yrs	3	0	2	5
			Above 50	0	0	0	0
		Total		207	417	514	1138
	401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	We provide an array of benefits to our employees that are not provided to temporary or part time employees. The benefits include: life-insurance scheme, health-insurance scheme, disability coverage, parental leave, retirement benefits and management grades are covered under stock options scheme of Vedanta.					
	401-3: Parental leave	In our policy of parental leave, maternity leave is for 26 weeks, adoption leave for 12 weeks and paternity leave for 1 week. For managing both personal and professional priorities for returning mothers, we provide the option to continue in the same role or move to another job profile.					

GRI Standard	Disclosure	Response
<b>LABOR/MANAGEMENT RELATIONS</b>		
GRI 103: Management Approach 2016		We are committed to the protection of natural entitlements of our host communities, employees and contract workers, and other people in our circle of influence. We follow a structured and comprehensive approach to human rights due diligence that facilitates the identification and scientific estimation of the degree of potential risks related to human rights violations across our operational portfolio. The scope of these assessments covers the activities of our employees, contractual workforce, suppliers, business partners, host communities, and other stakeholders across our value chain. Our Human Rights Policy requires mandatory due diligence before undertaking new projects, or supplier engagements. At Vedanta, we pay equal respect towards the human rights of our regular employees and our indirect workforce. We uphold the right to freedom of association enforced by collective bargaining agreements. We also conduct regular assessments through questionnaire to identify risks and mitigate them.
GRI 402: Labor/Management Changes 2016		<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127 (Human Rights)</b>
	402-1: Minimum notice periods regarding operational changes	Mechanism to bring awareness to all employees on any significant operational change like restructuring, mergers, acquisitions, expansions etc. is in place. Notice period(s) regarding significant operational changes is indicated in collective bargaining agreements and certified standing order of respective entities. For our operations it is minimum 21 days.
	G4-MM4: Number of strikes and lock-outs exceeding one week's duration, by country.	No strike or lockout exceeding 1 week in duration
<b>HEALTH, SAFETY AND WELL-BEING</b>		
GRI 103: Management Approach 2016		We continue to strengthen the 'Visible Felt Leadership' through the on-ground presence of senior management, improvement in reporting across all risk and verification of on-ground critical controls. We have also implemented Dupont safety programme to attain the goal of Zero Harm. <a href="https://vedantaaluminium.com/sustainability/sustainability-policies-standards-guidance-notes/sustainability-standards/">https://vedantaaluminium.com/sustainability/sustainability-policies-standards-guidance-notes/sustainability-standards/</a>
	403-1: Occupational health and safety management system	<b>Aluminium, Vedanta Sustainability Report 2021-22: Pages 110-115 (Health, Safety and Well-being)</b> Technical standard on Occupational Health Management - <a href="https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Occupational-Health-Management.pdf">https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Occupational-Health-Management.pdf</a> Technical standard on Safety Management - <a href="https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Safety-Management.pdf">https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Safety-Management.pdf</a>

GRI Standard	Disclosure	Response
	403-2: Hazard Identification, risk assessment and incident investigation	Guidance Note on Hazard identification and Incident investigation - <a href="https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Incident-Investigation.pdf">https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Incident-Investigation.pdf</a> Guidance Note on Risk Assessment - <a href="https://d1rbiogke1jwo5.cloudfront.net/wp-content/uploads/2021/03/Risk-Assessment.pdf">https://d1rbiogke1jwo5.cloudfront.net/wp-content/uploads/2021/03/Risk-Assessment.pdf</a>
	403-3: Occupational health and services	Technical standard on Occupational Health Management - <a href="https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Occupational-Health-Management.pdf">https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Occupational-Health-Management.pdf</a>
	403-4: Worker participation, consultation, and communication on OHS	Technical standard on Occupational Health Management - <a href="https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Occupational-Health-Management.pdf">https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Occupational-Health-Management.pdf</a> Technical standard on Safety Management - <a href="https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Safety-Management.pdf">https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Safety-Management.pdf</a>
	403-5: Worker training on OHS	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 105-110</b> (Health, Safety and Wellbeing)
	403-6: Promotion of worker health	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 105-110</b> (Health, Safety and Wellbeing)
	403-7: Prevention and mitigation of OHS impacts directly linked by business relationships	Guidance Note on Hazard identification and Incident investigation - <a href="https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Incident-Investigation.pdf">https://www.vedantalimited.com/uploads/esg/esg-sustainability-framework/Incident-Investigation.pdf</a> Guidance Note on Risk Assessment - <a href="https://d1rbiogke1jwo5.cloudfront.net/wp-content/uploads/2021/03/Risk-Assessment.pdf">https://d1rbiogke1jwo5.cloudfront.net/wp-content/uploads/2021/03/Risk-Assessment.pdf</a>
GRI 403: Occupational Health & Safety	403-8: Workers covered by an occupational health and safety management system	100% of total workforce represented in formal joint management – worker health and safety committee. All units are having safety committee, having representation from the management and unionized workers, which covers entire workforce working at site. The total workforce varies significantly based on the operations and are generally specified in collective contractual agreements. The committee meets on regular basis to advice on occupational health and safety improvement. In case of operations without a worker union, the principle contractor along with sub-contractors is invited to the monthly meetings to discuss specific HSE issues.

GRI Standard	Disclosure	Response					
		E/B		FY 2022-23	FY 2021-22	FY 2020-21	FY 2019-20
403-9: Work related injuries	JSG						
	EMPLOYEES	Manhour worked	69,20,512	71,86,352	78,01,152	84,14,752	
		Lost Time Injuries	1	1	1	1	
		Injury Rates (LTIFR)	0.14	0.14	0.13	0.12	
		Total Recordable Injuries	1	1	4	2	
		TRIFR	0.14	0.14	0.51	0.24	
		Lost Day Rate	6.79	13.08	3.72	30.19	
		Work-Related Fatalities	0	0	0	0	
		Rate of work related fatalities	0	0	0	0	
	Business Partners	Manhour worked	3,71,26,722.45	3,20,78,993	2,60,38,040	2,56,27,723	
		Lost Time Injuries	11	17	10	3	
		Injury Rates (LTIFR)	0.30	0.53	0.38	0.12	
		Total Recordable Injuries	18	21	33	17	
		TRIFR	0.48	0.65	1.27	0.66	
		Lost Day Rate	24.48	36.13	27.58	3.63	
		Work-Related Fatalities	1	1	0	1	
		Rate of work related fatalities	0.03	0.03	0.00	0.04	
	LANJIGARH						
	EMPLOYEES	Manhour worked	14,89,440	13,44,812	12,87,896	13,39,688	
		Lost Time Injuries	3	2	0	0	
		Injury Rates (LTIFR)	2.01	1.49	0	0	
		Total Recordable Injuries	3	2	0	0	
		TRIFR	2.01	1.49	0	0	
		Lost Day Rate	236.33	19.33	0	0	
		Work-Related Fatalities	0	0	0	0	
		Rate of work related fatalities	0.00	0.00	0.00	0.00	



GRI Standard	Disclosure	Response						
		Business Partners	Manhour worked	1,91,27,880	1,25,10,950	86,13,794	89,44,530	
		Lost Time Injuries		9	5	2	2	
			Injury Rates (LTIFR)	0.47	0.40	0.23	0.22	
			Total Recordable Injuries	10	13	6	10	
			TRIFR	0.52	1.04	0.7	1.12	
			Lost Day Rate	42.39884399	32.61	2.9	12.63	
			Work-Related Fatalities	0	2	1	0	
			Rate of work related fatalities	0.00	0.16	0.12	0.00	
		BALCO						
		EMPLOYEES	Manhour worked	45,44,488	46,03,512	54,75,648	63,78,092	
			Lost Time Injuries	0	0	2	2	
			Injury Rates (LTIFR)	0		0.37	0.31	
			Total Recordable Injuries	3	1	3	5	
			TRIFR	0.66	0.22	0.55	0.78	
			Lost Day Rate	0	0	12.6	3.76	
			Work-Related Fatalities	0	0	0	0	
			Rate of work related fatalities	0.00	0.00	0.00	0.00	
		Business Partners	Manhour worked	1,60,59,928.83	1,60,76,198	15644185.00	14275443.00	
			Lost Time Injuries	10	5	4	13	
			Injury Rates (LTIFR)	0.62	0.31	0.26	0.91	
			Total Recordable Injuries	17	15	17	19	
			TRIFR	1.06	0.93	1.09	1.33	
			Lost Day Rate	56.91	9.83	410.63	81.54	
			Work-Related Fatalities	0	1	1	1	
			Rate of work related fatalities	0.00	0.06	0.06	0.07	

GRI Standard	Disclosure	Response						
	SECTOR	EMPLOYEES	Manhour worked	1,29,54,440	1,31,34,676	14564696	16132532	
			Lost Time Injuries	4	3	3	3	
			Injury Rates (LTIFR)	0.31	0.23	0.5	0.43	
			Total Recordable Injuries	7	4	7	7	
			TRIFR	0.54	0.30	1.06	1.02	
			Lost Day Rate	30.80	9.14	16.32	33.95	
			Work-Related Fatalities	0	0	0	0	
			Rate of work related fatalities	0.00	0.00	0.00	0.00	
		BUSINESS PARTNER		Manhour worked	7,23,14,531.28	6,06,66,141	50296019	48847696
				Lost Time Injuries	30	27	16	18
			Injury Rates (LTIFR)	0.41	0.45	0.87	1.25	
			Total Injuries	45	49	56	46	
			Injury Rates (TRIFR)	0.62	0.81	3.06	3.11	
			Lost Day Rate	36.42	28.43	441.11	97.8	
			Work-Related Fatalities	1	4	2	2	
			Rate of work related fatalities	0.01	0.07	0.04	0.04	
	The rates have been calculated based on 1 million hours worked, 100% workforce is included in calculation							
	Health and safety topics are covered in the formal agreements with trade union. It is clearly stated in the agreement that the workmen / Recognized Union / Federation will support in all the measures / initiatives to be taken by the Company for improving production / productivity, work culture, quality & safety.							
	403-10: Work related ill health	Beside this, certified Standing Orders of units also cover these topics.						
		Direct and Indirect Employees	Number of fatalities as a result of ill health	JSG	BALCO	LNJ	TOTAL	
			Recordable ill health	28	1	0	29	

GRI Standard	Disclosure	Response
TRAINING AND EDUCATION		
GRI 103: Management Approach 2016		At Vedanta, we nurture and groom talent through a gamut of development programmes that include training, job rotations, additional projects and responsibilities, and mentoring programmes.
GRI 404: Training and Education 2016	404-1: Average hours of training per year per employee.	Aluminium, Vedanta Sustainability Report 2022-23: Pages 105-106 (Talent management)
		Aluminium, Vedanta Sustainability Report 2022-23: Pages 105-106 (Talent management)

GRI Standard	Disclosure	Response					
DIVERSITY AND EQUAL OPPORTUNITY							
GRI 103: Management Approach 2016		Vedanta is an equal opportunity employer and promotes diversity. Diversity in Vedanta is gender based.					
GRI 405: Diversity and Equal Opportunity 2016		<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 98-101</b> (Diversity and Equal Opportunity)					
		Composition of Governance bodies					
	405-1: Diversity of governance bodies and employees.	List different type of Board	Age group		Gender		
			less than 30 years	Between 30-50 years	Above 50 Years	Male	Female
		Board of Directors	0	2	6	2	
		Employees	2,832	2,820	205	4,967	890
	405-2: Ratio of basic salary and remuneration of women to men.	We are an equal opportunity employer. Across Vedanta Group we recruit both men & women on equal salary ratio. Our remuneration is linked to performance of the individual, business entity and overall group.					



GRI Standard	Disclosure	Response
<b>NON-DISCRIMINATION</b>		
GRI 103: Management Approach 2016		Vedanta strives for work environment that is free from discrimination. This includes discrimination on any basis, including gender, as well as any form of sexual harassment.
GRI 406: Non-discrimination	406-1: Incidents of discrimination and corrective actions taken	<p>We see sexual harassment at the workplace as one form of discriminatory behaviour. We have formal procedures for mediating cases of sexual harassment brought to the committee. The committee includes external members on the panel to ensure independence and provide balance.</p> <p><b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127 (Human Rights)</b></p> <p>Discrimination and Sexual Harassment cases FY2022-23</p> <p>Total number of incidents of discrimination</p> <p>Number of cases reviewed by the organization</p> <p>Remediation plans being implemented</p> <p>Remediation plans that have been implemented, with results reviewed through routine internal management review processes</p> <p>Incident no longer subject to action.</p>

GRI Standard	Disclosure	Response
<b>FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>		
GRI 103: Management Approach 2016		Vedanta's Human Rights Policy recognizes the right to associate freely and to collective bargaining.
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1: Operations and suppliers in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk.	<p><b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127 (Human Rights)</b></p> <p>Similarly, our significant suppliers are generally the big &amp; well reputed industry organizations like Coal India, SAIL and L&amp;T etc. with whom we engage directly for the bulk of material for further processing or as raw material. All these organizations have the collective bargaining and other labour union mechanisms.</p>

GRI Standard	Disclosure	Response
<b>CHILD LABOUR</b>		
GRI 103: Management Approach 2016		Vedanta's Human Rights Policy states that the company has zero tolerance for child labour – directly or through contracted labour.
GRI 408: Child Labour 2016	408-1: Operations and suppliers at significant risk for incidents of child labor.	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127 (Human Rights)</b>

GRI Standard	Disclosure	Response
<b>FORCED OR COMPULSORY LABOUR</b>		
GRI 103: Management Approach 2016		Vedanta's Human Rights Policy states that the company has zero tolerance for forced or compulsory labour – directly or through contracted labour.
GRI 409: Forced or Compulsory Labour 2016	409-1: Operations and suppliers at significant risk for incidents of forced or compulsory labour	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127 (Human Rights)</b>

GRI Standard	Disclosure	Response
<b>SECURITY PRACTICES</b>		
GRI 103: Management Approach 2016		Vedanta has built a resilient security framework at unit and business level. Security personnel undergo training.
GRI 410: Security Practices 2016	410-1: Security personnel trained in human rights policies or procedures	<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 126 (Security personnel trained in human rights policies or procedures)</b>

GRI Standard	Disclosure	Response
<b>RIGHTS OF INDIGENOUS PEOPLES</b>		
GRI 103: Management Approach 2016		<p>Vedanta has developed Cultural Heritage, Land &amp; Resettlement Management, and Indigenous People &amp; Vulnerable Tribal Groups Standards, based on various international conventions, including ICMIM and IFC standards. The Indigenous People &amp; Vulnerable Tribal Groups Technical Standard emphasises peaceful engagements in vernacular languages, between our project teams and these groups, informing them of our commitment to undertake operations in a manner that does not disturb their lifestyles.</p> <p><b>Aluminium, Vedanta Sustainability Report 2021-22: Page 122-123</b></p>
GRI 411: Rights of Indigenous Peoples	<p>411-1: Incidents of violations involving rights of indigenous peoples</p> <p>G4-MM5: Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities.</p> <p>G4-MM6: Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.</p>	<p>There were no violations involving the rights of indigenous peoples during the reporting year.</p> <p>None of our operating mines are operating in or adjacent to indigenous people territory.</p> <p>No significant disputes relating to land use, customary rights of local communities and indigenous peoples were brought to our notice during the reporting year.</p>

GRI Standard	Disclosure	Response
	G4-MM7: The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes.	No significant disputes relating to land use, customary rights of local communities and indigenous peoples were brought to our notice during the reporting year.

GRI Standard	Disclosure	Response
<b>HUMAN RIGHTS ASSESSMENT</b>		
GRI 103: Management Approach 2016		Vedanta's Human Rights policy is the guiding document for our human rights practices. <b>Aluminium, Vedanta Sustainability Report 2021-22: Pages 124-127 (Human Rights)</b>
GRI 412: Human Rights Assessment 2016	412-1: Operations that have been subject to human rights reviews or impact assessments.	Each year, all of our operational sites undergo the Vedanta Sustainability Assurance Program (VSAP) audit. This audit is conducted by an external 3rd party overseen by our Management Assurance Services (MAS) team. As part of the audit, sites are evaluated on their human rights management related to supplier and vendor management.
	412-2: Employee training on human rights policies or procedures	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 124-127 (Human rights)</b>
	412-3: Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Through our Human Rights policy – which has been implemented across all businesses of the Sector - Vedanta is committed to ensuring that the processes that it has in place, and continues to develop, follow the UN Guiding Principles. By conducting ESAs in compliance with applicable legal requirements and Vedanta Sustainability Framework, human rights considerations are taken into account for all new projects, including the obligation to undertake a human rights screening process in all merger and acquisition activities.



GRI Standard	Disclosure	Response
<b>LOCAL COMMUNITIES</b>		
GRI 103: Management Approach 2016		<p>Our operations are situated in remote regions of India. On the account of their geographical aloofness, these areas have traditionally lagged in catching up to the fast-paced development elsewhere in the country. Manifesting our vision of value-sharing, we direct our community development initiatives to increase social inclusiveness of these human settlements. These campaigns follow our mission to become the industry leader in social sustainability as well. Our vision of societal upliftment follows a systematic approach that delivers beyond regulatory requirements. We have devised a 4Ps Model (Public-Private-People-Partnership) that emphasizes partnership with local governments and intended beneficiaries for the formulation of long-term strategies and collective execution of programmes.</p> <p>We work with our host communities to ascertain their needs on a priority basis through participatory needs assessment programmes, followed by joint discussions on the roadmap of the proposed welfare campaigns. After obtaining management and bureaucratic approvals, we allocate our resources towards collaborative implementation of the community development projects, and regularly monitor their progress towards the desired objectives.</p> <p><b>Aluminium, Vedanta Sustainability Report 2022-23: Page 116-123</b>(Community Engagement and Development)</p>
GRI 413: Local Communities 2016	413-1: Operations with local community engagement, impact assessments, and development programs	<p>All of our operations have on-going local community engagements. These engagements are driving by a structured stakeholder engagement plan for all of the mapped stakeholders.</p> <p>In this fiscal year, we completed the process of conducting a needs and impact assessment for all of our CSR projects. Prior to starting operations, all of our sites conduct an Environmental Impact Assessment and Social Impact Assessment. These assessments are updated in case the sites undergo significant expansion programs.</p> <p>Public disclosure is a mandated part of the EIAs and SIAs.</p>
	413-2: Operations with significant actual and potential negative impacts on local communities	<p><b>Aluminium, Vedanta Sustainability Report 2022-23: Page 116-123</b> (Community Engagement and Development)</p>

GRI Standard	Disclosure	Response
<b>SUPPLIER SOCIAL ASSESSMENT</b>		
GRI 103: Management Approach 2016		Vedanta's Supplier Code of Conduct (SCOC) serves as the guiding document for all our interactions with suppliers and vendors. It is mandatory for all our suppliers to abide by the Code. The SCOC covers aspects related to: Labour & human rights, Health, Safety, Environment & Sustainability, Ethics & business integrity, Intellectual property, and Prohibition on insider trading.
GRI 414: Supplier Social Assessment	414-1: New suppliers that were screened using social criteria.	We have a standard ESG criteria for which all our suppliers are screened while onboarding.
GRI 414: Supplier Social Assessment	414-2: Negative social impacts in the supply chain and actions taken	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 42-44 (Supply Chain Management)</b>

GRI Standard	Disclosure	Response
<b>PUBLIC POLICY</b>		
GRI 103: Management Approach 2016		Vedanta's Code of Business Conduct and Ethics is the guiding document on our interactions with the government and political parties.
GRI 415: Public Policy 2016	415-1: Political Contributions	It is the Board's policy that Vedanta will not, under any circumstances, make donations or contributions to political organisations. Subsidiaries in India may make political donations or contributions as this is customary in India and permitted under local legislation. Any political donations made by the four unit of Aluminium Sector, will be disclosed in the Sector's Annual Report and Accounts.

GRI Standard	Disclosure	Response
<b>CUSTOMER HEALTH AND SAFETY</b>		
GRI 416: Customer health and safety	416-1: Assessment of the health and safety impacts of product and service categories	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 60-61 (Product Stewardship)</b>

GRI Standard	Disclosure	Response
<b>ARTISANAL AND SMALL-SCALE MINING</b>		
G4 – MM8	Number (and percentage) of company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks.	No such reported case

GRI Standard	Disclosure	Response
<b>RESETTLEMENT</b>		
G4 – MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	Vedanta has developed Cultural Heritage, Land & Resettlement Management, and Indigenous People & Vulnerable Tribal Groups Standards, based on various international conventions, including ICMIM and IFC standards. The Indigenous People & Vulnerable Tribal Groups Technical Standard emphasises peaceful engagements in vernacular languages, between our project teams and these groups, informing them of our commitment to undertake operations in a manner that does not disturb their lifestyles. We have periodic audits of project impacts, resettlement and impact management activities, and compliance with the terms of agreement with the communities.  <b>Aluminium, Vedanta Sustainability Report 2022-23: Page 124</b> (Land Acquisition, Rehabilitation and Closure)

GRI Standard	Disclosure	Response
<b>MATERIAL ASPECT : CLOSURE PLANNING</b>		
G4 – MM10	Number and percentage of operations with the closure plans.	As a part of statutory clearance all our mines operations have a closure plan.

# Economic

GRI Standard	Disclosure	Response
<b>ECONOMIC PERFORMANCE</b>		
GRI 3-3: Management Approach 2021		Boundary: Aluminium Sector, Vedanta  <b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 22-23</b> (Our Economic Performance)
GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed.	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 22-23</b> (Our Economic Performance)
		<b>Economic Value Generated and Distributed (in Rs Mn)</b>
		<b>Economic value generated (Revenues)</b>
		<b>Economic value distributed</b>
		a) Operating Costs
		b) Employee wages and benefits
		c) Payment to providers of capital
		d) Payment to government
		e) Community investments (including donation)-
		Economic value retained (Calculated as Economic value generated less economic value distributed)
	201-2: Financial implications and other risks and opportunities due to climate change	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 65-71</b> (Climate change and decarbonisation)
	201-3: Defined benefit plan obligations and other retirement plans.	Voluntary participation in Employees' pension scheme - national pension scheme; Superannuation policy is also present for senior management.
	201-4: Financial assistance received from government.	Tax credit received - <b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 22-23</b> (Our Economic Performance)



GRI Standard	Disclosure	Response
<b>MARKET PRESENCE</b>		
GRI 3-3: Management Approach 2021		Vedanta strives to create long term value for its shareholders.
GRI 202: Market Presence 2016	202-1: Ratios of standard entry level wage by gender compared to local minimum wage.	At all our significant locations, we ensure that the ratios of entry level wages meet or exceed the legal requirements and complies with all applicable laws. With regards to gender, the ratio is 1:1 and we don't discriminate in any way in terms of standard entry level wages
	202-2: Proportion of senior management hired from local community.	<b>Aluminium, Vedanta Sustainability Report 2022-23: Page 100-104 (Diversity, Equal Opportunity, and Inclusion)</b>
<b>INDIRECT ECONOMIC IMPACTS</b>		
GRI 3-3: Management Approach 2021		Our operations are situated in remote regions of India. On the account of their geographical aloofness, these areas have traditionally lagged in catching up to the fast-paced development elsewhere in the country. Manifesting our vision of value-sharing, we direct our community development initiatives to increase social inclusiveness of these human settlements. These campaigns follow our mission to become the industry leader in social sustainability as well. Our vision of societal upliftment follows a systematic approach that delivers beyond regulatory requirements. We have devised a 4Ps Model (Public-Private-People-Partnership) that emphasizes partnership with local governments and intended beneficiaries for the formulation of long-term strategies and collective execution of programmes.
GRI 203: Indirect Economic Impacts 2016	203-1: Infrastructure investments and services supported.	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 116-123 (Community Engagement and Development)</b> <b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 116-123 (Community Engagement and Development)</b>
	203-2: Significant indirect economic impacts	<b>Aluminium, Vedanta Sustainability Report 2022-23: Pages 113-119 (Community Engagement and Development)</b>
<b>PROCUREMENT PRACTICES</b>		
	204-1: Proportion of spending on local suppliers	For the FY 2022-23, we have spent INR 1,92,054 Million on local procurement which comprises 44% of the total procurement in Aluminium sector. Aluminium, Vedanta Sustainability Report 2022-23: Pages 42-44 (Supply Chain Management)

GRI Standard	Disclosure	Response																																													
ANTI-CORRUPTION																																															
GRI 3-3: Management Approach 2021		The Company's code of conduct defines the fundamentals of engagement with different stakeholders across our value chain. We are committed to upholding the spirit of these business ethics as they lay the foundation of our multi-faceted approach towards sustainable development. We have a zero-tolerance policy towards any violation of these codes of conduct and ethical values. The business ethics adhere to the relevant laws of the land and are updated as per industry trends. The purview of this code covers all directors, management personnel, employees, contractors, and suppliers of the Company. The Company's Code of Business Conduct is available at <a href="https://www.vedantalimited.com/CorporateGovernance/vedanta_limited_code_of_conduct_and_business_ethics.pdf">https://www.vedantalimited.com/CorporateGovernance/vedanta_limited_code_of_conduct_and_business_ethics.pdf</a>																																													
GRI 205: Anti-Corruption 2016	205-1: Operations assessed for risks related to corruption	100% of our operations are assessed for risks related to corruption. The assessments are conducted by the Management Assurance Services (MAS) team. More details can be found at:																																													
	205-2: Communication and training about anti-corruption policies and procedures	<b>Vedanta Resources Limited Annual Report 2019-20: Page 32-33</b> (Code of business conduct and Ethics) <b>Aluminium, Vedanta Sustainability Report 2022-23: Page 32-33</b> (Code of business conduct and Ethics)																																													
		<table><tr><td></td><td>JSG</td><td>BALCO</td><td>LNJ</td><td>TOTAL</td></tr><tr><td>Governance body members</td><td>29</td><td>21</td><td>26</td><td>76</td></tr><tr><td>Employees</td><td>3,045</td><td>856</td><td>1,039</td><td>4,940</td></tr><tr><td>Business partners</td><td>14,891</td><td>5,282</td><td>8,009</td><td>28,182</td></tr><tr><td>Retainer employees</td><td>5</td><td>1</td><td>10</td><td>16</td></tr><tr><td>Total</td><td>17,970</td><td>6,160</td><td>9,084</td><td>33,214</td></tr></table>		JSG	BALCO	LNJ	TOTAL	Governance body members	29	21	26	76	Employees	3,045	856	1,039	4,940	Business partners	14,891	5,282	8,009	28,182	Retainer employees	5	1	10	16	Total	17,970	6,160	9,084	33,214															
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Retainer employees	5	1	10	16																																											
Total	17,970	6,160	9,084	33,214																																											
	205-3: Confirmed incidents of corruption and action taken	<table><tr><td></td><td colspan="2">FY 2022-23</td><td colspan="2">FY 2021-22</td></tr><tr><td>Number of Open Complaints on April 1st 2021</td><td colspan="2">5</td><td colspan="2">3</td></tr><tr><td>Number of Whistle Blower Cases opened in FY 2021-22</td><td colspan="2">29</td><td colspan="2">23</td></tr><tr><td>Number of Whistle Blower Cases upheld and found correct in FY 2021-22</td><td colspan="2">9</td><td colspan="2">8</td></tr><tr><td>Number of incidents in which employees were dismissed or disciplined for corruption</td><td colspan="2">9</td><td colspan="2"></td></tr><tr><td>Number of incidents where contracts with business partners were terminated or not renewed due to violation related to corruption</td><td colspan="2">1</td><td colspan="2"></td></tr><tr><td>Number of Public legal Whistle Blower cases brought against company, or employees</td><td colspan="2"></td><td colspan="2"></td></tr><tr><td>Number of Whistle Blower Cases closed in FY 2021-22</td><td colspan="2">31</td><td colspan="2">21</td></tr><tr><td>Open complaints on 31st March, 2022</td><td colspan="2">3</td><td colspan="2">5</td></tr></table>		FY 2022-23		FY 2021-22		Number of Open Complaints on April 1st 2021	5		3		Number of Whistle Blower Cases opened in FY 2021-22	29		23		Number of Whistle Blower Cases upheld and found correct in FY 2021-22	9		8		Number of incidents in which employees were dismissed or disciplined for corruption	9				Number of incidents where contracts with business partners were terminated or not renewed due to violation related to corruption	1				Number of Public legal Whistle Blower cases brought against company, or employees					Number of Whistle Blower Cases closed in FY 2021-22	31		21		Open complaints on 31st March, 2022	3		5	
	FY 2022-23		FY 2021-22																																												
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Number of Whistle Blower Cases closed in FY 2021-22	31		21																																												
Open complaints on 31st March, 2022	3		5																																												

GRI Standard	Disclosure	Response
<b>ANTI-COMPETITIVE BEHAVIOUR</b>		
GRI 103: Management Approach 2016		<p>From of Code of Business Conduct and Ethics:</p> <p>"Vedanta Aluminium is committed to free and open competition in the marketplace. Employees should avoid actions that would be contrary to laws governing competitive practices in the marketplace, including federal and state anti-trust laws. Such actions include misappropriation and/or misuse of a competitor's confidential information or making false statements about the competitor's business and business practices. The Company and its employees shall under no circumstances engage in any anti-competitive practices such as illegal fixing of prices, sharing of markets or other actions which prevent, restrict or distort competition in violation of applicable anti-trust laws.</p>
GRI 206: Anti-Competitive Behaviour 2016	206-1: Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices.	No legal action.
<b>TAX</b>		
GRI 207:	207-1: Approach to tax	<p>We have a long-standing commitment to transparency.</p> <p><b>Tax Transparency Report 2022-23</b></p>
	207-2 Tax governance, control, and risk management	Substance, Transparency and Arm Length Principle, Tax Risk Management Framework, Controls Vedanta Annual Report
	207-3 Stakeholder engagement and management of concerns related to tax	<p>We maintain an open, honest, transparent and constructive relationship in all our dealings with the tax authorities in the jurisdictions in which we operate. Our dealings are based on mutual trust in line with Vedanta's Code of Business Conduct and Ethics.</p> <p>Vedanta has also formed an internal 'Tax Council' which acts as an overarching governing body to the tax function as a whole.</p>
	207-4 Country by country reporting	<b>Vedanta Tax Transparency Report 2022-23 Page: 13</b>

# List of Abbreviations

<b>JSG</b>	Jharsuguda
<b>LNJ</b>	Lanjigarh
<b>BALCO</b>	Bharat Aluminium Company Limited
<b>GRI</b>	Global Reporting Initiative
<b>UNGC</b>	United Nations Global Compact
<b>SDGs</b>	Sustainable Development Goals
<b>UN-SDGs</b>	United Nations Sustainable Development Goals
<b>TCFD</b>	Task Force on Climate-Related Financial Disclosures
<b>ESG</b>	Environmental, Social, and Governance
<b>LOI</b>	Letter of Intent
<b>PPA</b>	Power Purchase Agreements
<b>SLL</b>	Sustainability Linked Loans
<b>LME</b>	London Metal Exchange
<b>EPD</b>	Environmental Product Declaration
<b>CPP</b>	Captive Power Plants
<b>IPP</b>	Independent Power Plant
<b>MTPA</b>	Million Tonnes Per Annum
<b>IDCO</b>	Infrastructure Development Corporation
<b>BIS</b>	Bureau of Indian Standards
<b>GHG</b>	Green House Gas
<b>CBAM</b>	Carbon Border Adjustment Mechanism
<b>MT</b>	Metric Tonne
<b>INR Mn</b>	Indian Rupee Million
<b>HSE</b>	Health Safety and Environment
<b>RHP</b>	Rural Health Posts
<b>THR</b>	Take Home Ration
<b>SAM</b>	Severely Acute Malnourished
<b>MAM</b>	Moderately Acute Malnourished
<b>PDH</b>	Positive Deviance Hearth
<b>SHG</b>	Self-Help Group
<b>PRI</b>	Panchayati Raj Institutions

<b>EDII</b>	Entrepreneurship Development Institute of India
<b>VSF</b>	Vedanta Sustainability Framework
<b>MTPA</b>	Million Metric Tonnes per Annum
<b>PFA</b>	Primary Foundry Alloys
<b>ICMM</b>	International Council on Mining and Metals
<b>IP/VTG</b>	Indigenous People/Vulnerable Tribal Group
<b>ExCo</b>	Executive Committee
<b>CBCE</b>	Code of Business Conduct and Ethics
<b>MAS</b>	Management Assurance Service
<b>CEE</b>	Council of Enviro Excellence
<b>NEDs</b>	Non - Executive Directors
<b>CFO</b>	Chief Financial Officer
<b>GRMC</b>	Group Risk Management Committee
<b>KPI</b>	Key Performance Indicators
<b>ESOP</b>	Employee Stock Ownership Plan
<b>LTIP</b>	Long-Term Incentive Plans
<b>MOC</b>	Ministry of Coal
<b>MOR</b>	Ministry of Railways
<b>RMP</b>	Residue Management Pond
<b>IG</b>	Intermediate Goods
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>NGO</b>	Non-Governmental Organisations
<b>ERM</b>	Enterprise Risk Management
<b>BTAP</b>	Bogey Tank for Alumina Powder
<b>TAT</b>	Turn Around Time
<b>EMF</b>	Electromagnetic Fields
<b>DSS</b>	DuPont Sustainable Solutions
<b>CAPA</b>	Corrective and Preventive Actions
<b>BU</b>	Business Units
<b>COO</b>	Chief Operating Officers
<b>CoP</b>	Community of Practice



<b>MSMEs</b>	Micro, Small, and Medium Enterprises
<b>VLISC</b>	Vedanta Limited Information Security Committee
<b>BISC</b>	Business Information Security Committee
<b>CDIO</b>	Chief Digital and IT Officer
<b>R&amp;D</b>	Research and Development
<b>CTS</b>	Customer Technical Support
<b>SRI</b>	Socially Responsible Investment
<b>RCP</b>	Representative Concentration Pathways
<b>PAT</b>	Perform, Achieve, Trade
<b>ASI</b>	Aluminium Stewardship Initiative
<b>CII</b>	Confederation of Indian Industry
<b>HSD</b>	High Speed Diesel
<b>PM</b>	Particulate Matter
<b>Sox</b>	Sulfur Oxides
<b>Nox</b>	Nitrogen Oxides
<b>FGD</b>	Flue - Gas Desulphurization
<b>HFO</b>	Heavy Fuel Oil
<b>WRI</b>	World Resource Institute
<b>KT</b>	Kiloton
<b>SPL</b>	Spent Pot Lining
<b>CPCB</b>	Central Pollution Control Board
<b>GISTM</b>	Global Industry Standard on Tailings Management
<b>TMF</b>	Tailings Management Facilities
<b>BRDA</b>	Bauxite Residue Disposal Area
<b>TNFD</b>	Taskforce on Nature-related Financial Disclosures
<b>IUCN</b>	International Union for Conservation of Nature
<b>NNL</b>	No Net Loss
<b>NPL</b>	Net Positive Impact
<b>NPG</b>	Net Positive Gain
<b>IFC</b>	International Finance Corporation

<b>IBAT</b>	Integrated Biodiversity Assessment Tool
<b>STAR</b>	Species Threat Abatement and Restoration
<b>BMP</b>	Biodiversity Management Plans
<b>KBA</b>	Key Biodiversity Areas
<b>PA</b>	Protected Areas
<b>GET</b>	Graduate Engineer Trainees
<b>HC ROI</b>	Human Capital Return on Investment
<b>GPTW</b>	Great Place to Work
<b>OBL</b>	Outbound Learning Program
<b>VLDP</b>	Vedanta Leadership Development Program
<b>ACT-UP</b>	Accelerated Competency Tracking & Upgradation Process
<b>IDAP</b>	Individual Development Action Plan
<b>MDP</b>	Management Development Programs
<b>MBO</b>	Management by objectives
<b>LEAP</b>	Leadership Excellence Accelerator Program
<b>PPE</b>	Personal Protective Equipment
<b>CAPA</b>	Corrective and Preventive Actions
<b>LTIFR</b>	Lost Time Injury Frequency Rate
<b>TRIFR</b>	Total Recordable Injury Frequency Rate
<b>OH&amp;S</b>	Occupational Health and Safety
<b>RHPs</b>	Rural Health Posts
<b>PDH</b>	Positive Deviance Hearth
<b>THR</b>	Take Home Ration
<b>EDII</b>	Entrepreneurship Development Institute of India
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>CLO</b>	Community Liaison Officer
<b>UDHR</b>	Universal Declaration of Human Rights
<b>VPSHR</b>	Voluntary Principles on Security and Human Rights
<b>ICC</b>	Internal Complaints Committee
<b>POSH</b>	Prevention of Sexual Harassment

# Assurance Statement



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West Bengal, India

Tel: +91 33 6615 3400  
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## Independent Practitioner's Assurance Statement

### The Management and Board of Directors

Aluminium & Power Division, Vedanta Limited  
Village Bhurkamunda, RO. Kalimandir, District Jharsuguda  
Odisha 768202, India

### Scope

We have been engaged by Aluminium & Power Division, Vedanta Limited (hereafter "Vedanta Aluminium") 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 (the "Subject Matter"), as contained in Vedanta Aluminium's Sustainability Report FY2022-23 for the period 1st April 2022 to 31st March 2023.

S.No	GRI	Indicators
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	Energy
15	GRI 303-3 to 303-5	Water and Effluents
16	GRI 304-1 to 304-4, MM1, MM2	Biodiversity
17	GRI 305-1 to 305-7	Emissions
18	GRI 306-3 to 306-5, MM3	Waste
19	GRI 308-1, 308-2	Supplier Environmental Assessment
20	GRI 401-1 to 401-3	Employment
21	GRI 402-1, MM4	Labor/Management Relations
22	GRI 403-1 to 403-10	Occupational Health and Safety

23	GRI 404-1 to 404-3	Training and Education
24	GRI 405-1, 405-2	Diversity and Equal Opportunity
25	GRI 406-1	Non-Discrimination
26	GRI 407-1	Freedom of Association and Collective Bargaining
27	GRI 408-1	Child Labour
28	GRI 409-1	Forced or Compulsory Labour
29	GRI 410-1	Security Practices
30	GRI 411-1, MM5, MM6, MM7	Rights of Indigenous People
31	GRI 413-1, 413-2	Local Communities
32	GRI 414-1	Supplier Social Assessment
33	MM8	Artisanal and Small-Scale Mining
34	MM9	Resettlement
35	MM10	Closure Planning

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 Aluminium

In preparing the Sustainability Report FY2022-23, Vedanta Aluminium applied the Global Reporting Initiative (GRI) Standards, in accordance with Core Criteria. GRI Standards - Core Criteria were specifically designed for Sustainability Report FY2022-23; as a result, the subject matter information may not be suitable for another purpose.

#### Vedanta Aluminium's responsibilities

Vedanta Aluminium'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 Aluminium on 09 May 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 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
1	Lanjigarh Alumina Refinery	Odisha, India	Physical and Virtual
2	Jharsuguda Aluminium Smelter	Odisha, India	Physical and Virtual
3	BALCO	Chhattisgarh, India	Physical and Virtual

- Executing an audit trail of claims and data streams, on a sample 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 collecting, collating and reporting the subject matter as per GRI Standards, and the progress made during the reporting period;
- Checking that the calculation criteria have been correctly applied in accordance with the methodologies outlined in the Criteria
- Undertaking analytical procedures of the data and made inquiries of management to obtain explanations for any significant differences we identified
- Identifying and testing assumptions supporting calculations
- Checking 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.

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 as of 14 November 2023, for the year ended 31 March 2023, 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 Aluminium and is not intended to be and should not be used by anyone other than Vedanta Aluminium.

14 November 2023  
 Kolkata, India





**aluminium**

## **ALUMINIUM, VEDANTA LIMITED**

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