



# Nature Nurture Future



Sustainable Development Report **2020-21**



**aluminium**



# About This Report



## Achieving New Milestones Through Sustainability

Vedanta Aluminium (hereafter referred to as 'the Sector') presents its second annual Sustainable Development Report to share highlights of our commitment towards fulfilling social responsibilities while furthering our business aspirations. The report presents sustainability performance of the Sector for the financial year 2020-21. It covers key areas of interest for our stakeholders and material issues relevant to our operations and business. Aluminium Business mentioned in the report is a subset of the Sector, and refers to our Aluminium Smelters in BALCO and Jharsuguda, our Alumina Refinery in Lanjigarh and the Captive Power Plants at each of these three locations.

The universally embraced GRI Standards - Core have been referred in the development of this report. It is also aligned to the United Nations Global Compact (UNGC) Principles and maps United Nations Sustainable Development Goals (UN-SDGs).

Vedanta Limited (hereafter referred to as 'the Company') is one of the world's leading natural resources companies with operations in metal and mining, oil and gas, and energy generation. Vedanta Aluminium is a division of Vedanta Limited. The company's aluminium brands are listed on the London Metal Exchange (LME) and cater to both Indian and overseas markets.

We are developing our standalone Sustainable Development Reports with the objective of apprising Sector specific stakeholders on the economic, environmental, and social impacts of our activities across the Sector. This report provides us the opportunity of reassuring our stakeholders about our commitment towards creating long-term value for the society through sustained improvement on material Environmental, Social and Governance matters pertaining to the business.

As one of the world's leading aluminium producers, we are cognizant of our duty towards aligning our operations to the Triple Bottom Line principle of sustainable development. We are an organization with a proven track record of accomplishments, coupled with an equally strong sense of purpose and responsibility towards the greater good, unpinned by the ideology of responsible growth.

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# Overview



## About Us

Vedanta Limited is one of the world's leading Metals and Oil & Gas companies, headquartered in Mumbai, India. The Company operates a diverse portfolio of businesses, including Aluminium, Copper, Zinc, Lead, Silver, Iron ore, Oil & Gas, and Commercial Power. Each of these businesses operates as an independent vertical.

Vedanta Aluminium manages the Aluminium Vertical of the Company, and includes two bauxite mines, three coal mines, one Alumina Refinery, and two Aluminium Smelters in India. The Sector is the largest producer of aluminium in India, with an installed smelting capacity of 2.2 million metric tonnes (MMT) per annum and domestic aluminium market share of 40%. Our total aluminium production in FY 2020-21 was 1.97 MMT, an estimated increase of 65,000 metric tonnes from the previous reporting period.



Aerial view of Alumina Refinery, Lanjigarh

# Our Sustainability Performance



## ENVIRONMENT

<b>Climate Change</b>	<b>21%</b> reduction in tCO <sub>2</sub> e emission intensity from 2012 baseline	<b>308 MU</b> of renewable power purchased	<b>292,000+</b> Renewable Energy Certificates (REC) purchased
<b>Biodiversity</b>	<b>93%</b> of mined out area rehabilitated		
<b>Water Management</b>	<b>16.5 million</b> m <sup>3</sup> water recycled		
<b>Waste Management</b>	<b>118%</b> ash utilization		
<b>Environment Stewardship</b>	<b>Zero</b> Category 4 and 5 Environmental Incidents		

## SOCIAL



<b>Safety</b>	<b>0.29 LTIFR.</b>	<b>0.97 TRIFR.</b>	
<b>Communities</b>	<b>USD 3.6</b> million in community investments	<b>500,000+</b> lives improved through community development projects	<b>79%</b> of grievances closed
	<b>2,111</b> manhours of community volunteering by our employees	<b>4000+</b> women members in Subhalaxmi Co-operative, associated with 339 Self-Help Groups (SHGs)	
<b>People</b>	<b>14%</b> women in management positions	<b>78%</b> score in Actively Engaged Employees	<b>22.6%</b> local people in senior management
	<b>5,600+</b> permanent employees and <b>16,000+</b> business partner employees		



## GOVERNANCE

<b>Revenue</b>	<b>USD 4.19</b> billion economic value distributed	
<b>Supply Chain</b>	<b>100%</b> suppliers screened for ESG criteria while onboarding	
<b>Production</b>	<b>1.97 MMT</b> of aluminium produced	<b>4.4 MU</b> of power sold

# Our Sustainability Progress and Roadmap

Achieved ●  
Partially Achieved ●  
Not Achieved ●

S. No.	Issues emerging as High Priority	SDG Alignment	FY 2020-21 Targets	Status	Performance	Targets FY 2021-22 & beyond
<b>SAFETY OF OUR WORKFORCE</b>						
1	<b>Health and Safety</b>	SDG 8.8: Protect labour rights and provide safe work conditions for all	Zero fatal accidents	●	2 fatalities	Zero fatal accidents
2			Initiate reporting of Total Recordable Incident Frequency Rate (TRIFR) for the sector	●	0.97 TRIFR 0.29 LTIFR	Strengthen reporting of TRIFR and HIPOs
3			Achieve a score >75% in the safety performance standards	●	Average score: 69.2%	Achieve a score >75% in the safety performance standards
<b>ENVIRONMENT MANAGEMENT</b>						
4	<b>Energy &amp; Climate Change</b>	SDG 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters	Undertake a detailed study to understand flood risk due to extreme weather change and implement the mitigation plan	●	Undertook the study on flood risk and mitigation plan prepared for BALCO	Commence implementation of the mitigation plan
5		SDG 13.2: Integrate climate change measures into strategies, policies, and planning	Develop 2025 GHG intensity reduction targets for the sector.	●	Developed long-term targets and action plan for reduction in GHG intensity for FY 2024-25.	Reduce our GHG emissions intensity by 24% from 2012 baseline by 2025.
6	<b>Water Management</b>	SDG 6.4: Increase water use efficiency and ensure sustainable withdrawals				Explore sustainable solutions for water management at operations in the water stressed areas.



7	<b>Waste management</b>	SDG 12.5: Substantially reduce waste generation through prevention, reduction, recycling, and reuse	Sustain 100% utilization of ash	●	118% utilization of ash	Sustain 100% utilization of ash
<b>PEOPLE AND DIVERSITY</b>						
8	<b>Ethical Business Practices</b>	No specific SDG	Continue to focus on Code of Conduct training for all professional employees including new hires	●	All of our new hires have undergone training on COC and signed a copy of Code towards alignment to COC.	Continue to focus on Code of Conduct training for all professional employees including new hires
9	<b>Diversity &amp; Equal Opportunity</b>	SDG 5.9: Adopt and enforce policies and legislation on gender equality	Achieve 30% female representation at employee level	●	12% women employees in Vedanta Aluminium workforce	Achieve 30% female representation at employee level
<b>SOCIAL LICENSE TO OPERATE</b>						
10	<b>Supply Chain Sustainability</b>	SDG 8.7: Eliminate worst forms of child labour, all forced labour				BUs continue to monitor Modern Slavery Act requirements in supply chain for breaches of human rights.

## From the Chairman's Desk



**Our principles of responsible production are guided by our ethos of 'Zero Harm, Zero Waste and Zero Discharge'.**



Anil Agarwal, Chairman, Vedanta Limited

Dear Stakeholder,

I am proud to present to you the second Sustainable Development Report of Vedanta Aluminium. I take this opportunity to appreciate the dedicated efforts of our leadership team towards propelling the business towards greater heights of growth through responsible action and sustainable business development. This report has given us the opportunity to share the trajectory of our sustainability commitments year-on-year. We will also use this platform to communicate the outcomes of our endeavours towards the realization of our vision of nation building while securing stakeholders' interests.

Our principles of responsible production are guided by our ethos of 'Zero Harm, Zero Waste and Zero Discharge'. We truly believe in exploring aluminium's limitless potential as the metal for a greener future, owing to its inherent properties including that of eternal recyclability. The demand for aluminium is growing at a fast pace on account of its strategic importance for the Indian Government's Smart Cities Mission, the 'Make in India' initiative, National Infrastructure Pipeline, Solar Parks and other marquee projects in infrastructure, energy, transportation and more for diverse customers.

With state-of-the-art operational assets, our Aluminium business is well resourced to produce top-of-the-line value-added offerings for catering to the metal's demand in domestic and global markets. True to their engineering prowess, resilience, and innovative approach, our aluminium operations have delivered more than USD 4.19 billion of economic value in this financial year, despite supply chain bottlenecks and challenges to the market sentiment posed by the global pandemic.

Our Health, Safety and Environment (HSE) policies and internal standards guide our commitment towards creating zero harm workplaces for our human capital. However, despite rigorous efforts of the management, we were deeply saddened to lose two employees of our business partners in work-related accidents at our aluminium operations in the past year. These unfortunate events serve as a continued reminder of our primary duty – to ensure a strong and unfailing Company-wide safety culture that safeguards the people working with us.

Climate change has emerged as the most important global challenge, which carries with it a multitude of complexities and repercussions for

humankind. As part of our solemn promise to act upon climate-led business imperatives, I am heartened to share that Vedanta Aluminium has reduced GHG emission intensity by 21% since 2012, and this has bolstered our resolve to do more and do better. I reassure you that every single business and leader in the Company (including the Aluminium Business) is cognizant of their roles and responsibilities in this regard, and we are making stringent efforts to ensure that the emerging risk and its impact can be mitigated without affecting business growth in the years to come.

**I feel privileged to spearhead Vedanta's social commitments towards the progress of India. This year, our Aluminium business Sector employed 12% women employees, who are engaged in a diverse set of job responsibilities – from managers to plant operations. The business has spent USD 3.6 million in community welfare initiatives spanning 93 core villages. You will be pleased to note that these initiatives have improved the lives of over five hundred thousand people hailing from the local communities, who were especially at risk owing to the pandemic.**

Vedanta stands in solidarity with its entire workforce, their families, host communities and governments as each of us battles the pandemic. We are deeply aggrieved by the plight of so many people in our country and in the world. Working towards alleviating some of the pain, we have undertaken various COVID care initiatives including vaccination for all employees, business partners and their family members, increased medical insurance cover, continuation of medical insurance for retiring employees, welfare initiatives for families of deceased employees and business partners, increased aid to local governments in the form

of infrastructure, oxygen, medical equipment, etc. and support to local communities.

In partnership with respective state governments, Vedanta has developed a 200-bed COVID Hospital at Bhawanipatna (in Kalahandi, Odisha), a 100-bedded hospital at Deogarh (Odisha) and a 100-bed COVID Field Hospital at Korba (Chhattisgarh), which are fully oxygenated and have all necessary medical equipment, including a dedicated team of doctors and medical personnel. We also continue to support a 110-bed standalone COVID Hospital by the Government of Odisha at Jharsuguda.

As India's leading metals and oil & gas producer, Vedanta has been ensuring domestic self-sufficiency in various critical raw materials by leveraging global best-in-class technologies. I firmly believe that the leadership of Vedanta Aluminium will carry forward this legacy and shall leave no stone unturned in fulfilling the evolving market needs, and staying ahead of best-in-industry practices. I am grateful and honoured to have your unwavering confidence and faith in us and our undertakings over the years, and request your continued support for the sustainable advancement of our business interests, as we work with a shared vision of growth and development for our customers, communities, and country.

On behalf of the entire Vedanta family, I wish you and your loved ones good health and happiness. Please take care and stay safe.

**Anil Agarwal**

*Chairman, Vedanta Limited*



**Safety and sustainability remain at the heart of our business.**

”

Rahul Sharma, Dy. CEO - Aluminium Business

Dear Stakeholders,

Thank you for your encouraging reception of our maiden Sustainable Development Report last year, I am delighted to present to you our sustainability journey for FY 2020-21 through this year's report.

Amid the testing times of the pandemic, we have put enormous efforts to ensure the safety of our employees, business partners and their families as well as the local communities in and around our areas of operations. Even when the world economy was shaken, our teams persistently ensured business continuity and I am extremely proud of their passion and determination, which drove us to stay resilient.

Sustainability is imbibed in every aspect of the way we conduct our business. We work towards achieving a better future for the company as well as our stakeholders, while ensuring Zero Harm to the environment or our communities. In this year, we have produced 1.97 million metric tonnes of aluminium and sold more than 4.4 billion units of power, which generated a total revenue of USD 4.19 billion.

At Vedanta, safety has always been our first priority and our leadership is committed towards making our facilities the safest places to work in. And therefore, while we have come a long way in terms of our safety performance, it is with immense grief that I share the news of loss of two precious lives at our Aluminium Sector. Such incidents are absolutely unacceptable to us and we will leave no stone unturned to ensure that these incidents are not repeated in the future.

At Vedanta, we firmly hold that our employees are our most important resources. We have fostered a 'Culture of Care' to ensure that our workplaces are safe, engaging and encouraging for our people. With 'Zero Harm' as our underlying business ethos, our leadership has been actively involved in interacting with the workforce on site and sensitizing them towards unfailing adherence to safety practices, to foster a 'Culture of Safety.' We continuously encourage our employees to transparently report any incidents, from high-potential incidents to near-misses. This year, we have proactively identified 103 high-potential incidents which our team investigated and remediated at the earliest, to ensure that such incidents do not cause any harm to our workforce.

It is important for the sustainability of any business that its employees remain engaged. At Vedanta Aluminium, we are dedicated to meaningfully engaging our employees, and seek their feedback on various facets of business and employee welfare through various

surveys. Our leaders are committed to acting upon the feedback received from our employees. I am proud to share that this year, we have achieved an employee engagement score of 78%, and I am sure that our ongoing efforts will ensure an even greater degree of employee engagement and satisfaction.

**It is imperative that our business growth materializes in a sustainable manner through judicious and responsible utilization of resources, highest efficiency of assets and processes, and a focused approach towards carbon mitigation. We have taken several robust initiatives to strengthen our environmental performance. Our consistent efforts have led to a reduction of our GHG emission intensity by 21% at our Aluminium Business with year 2012 as baseline. We shall continue to increase our efforts in this area to fulfil Vedanta's pledge of moving towards carbon neutrality.**

**Vedanta is among the signatories of the 'Declaration of the Private Sector on Climate Change'. Vedanta Aluminium is committed to decarbonisation of operations in the long term. As the first step, we have taken a target of achieving 24% reduction in GHG emissions intensity over 2012 baseline by FY 2025. Towards our water stewardship, this year, we have recycled 16.5 million m<sup>3</sup> of water, which is 12.6% more than last year. We persistently aim to achieve higher levels of water efficiency by recycling and reusing it.**

Our 'Culture of Care' also extends beyond the boundaries of our operations and is aligned with our emphasis on giving back to society. We are steadfast in our efforts to build strong relationships with our host communities for collective growth, which shall ensure our social license to operate. During the year, we have invested USD 3.6 million towards community development. Through our multi-dimensional interventions,

we were able to positively impact the lives of more than 500 thousand people during the year. One of our key projects, the Subhalaxmi Co-operative, is among India's largest rural women's co-operatives, and supports 4,000 women associated with 339 Self Help Groups (SHGs) with microfinance services and skill development, and encourages them to explore various avenues of entrepreneurship. Alongside our journey of growth and development, we aim to touch the lives of many more people going forward, through our diverse community development interventions.

We firmly believe that digitalization will play a vital role in making our operations future-ready. We continually explore, evaluate and deploy cutting-edge technology solutions to provide a step-change in our productivity and efficiency, eliminate wastage, and increase safety and reliability. To nurture a culture of entrepreneurship and design thinking, we have also developed Innovation Centres, which have given our young employees a platform to engage and develop disruptive ideas towards business excellence. With the knowledge that digitalization and innovation come with a responsibility towards cybersecurity, we have also put in place robust mechanisms to ensure security of our intangible assets.

We truly understand that our growth is interconnected with the growth of our country, our communities and all stakeholders. We have been and will continue to work in a manner that empowers our people and communities, and nurtures the environment, while unlocking the full potential of our business.

### **Rahul Sharma**

*Dy. CEO - Aluminium Business*

### Operations and Assets


Vedanta Aluminium manages its operational portfolio comprising independent Business Units (BU), with total installed aluminium production capacity of 2.2 MMT per annum. The Sector manages two small bauxite mines with estimated capacity of 1.25 MMT per annum and 0.75 MMT per annum respectively at Kawardha and Mainpat regions in Chhattisgarh, India. The Sector also administers the operations of an Alumina Refinery, installed with state-of-the art technology at Lanjigarh, Odisha - the state that has the largest bauxite reserves in India. The existing operational capacity of the refinery is 2 MMT per annum of hydrated alumina, which can be further expanded to 5 MMT upon completion of the ongoing expansion project.

The Aluminium Smelter at Jharsuguda, in the state of Odisha, India, is the world's largest single-location aluminium smelter, outside China, with installed production capacity of 1.6 MMT per annum. The Bharat Aluminium Company (BALCO) is the Sector's other independent smelting unit located at Korba in the state of Chhattisgarh, with an annual production capacity of 0.595 MMT. Both Aluminium Smelters have 100% coal-based Captive Power Plants to ensure continuous power supply to the smelters. Our BALCO and Jharsuguda plants have one Independent Power Plant each, which supply power to the respective state grids.

Vedanta owns the Chotia coal block in Chhattisgarh, which has an annual extraction capacity of 1 MMT. The Company had acquired mining rights of the Jamkhani coal block in Sundargarh district, Odisha in the previous reporting period. This coal block has an approved mining capacity of 2.6 MMT per annum. Recently, Vedanta has also acquired the Radhikapur West coal block in Odisha, which has an approved mining capacity of 6 MMT with the total extractable reserves of 312 MMT. On the account of their abundant reserves and proximity to our Jharsuguda smelter, both coal blocks will help bolster the fuel security of the plant and boost our efforts of reducing inbound logistical emissions.



Aluminium Smelter, Jharsuguda, at dusk



**LOCATIONS**

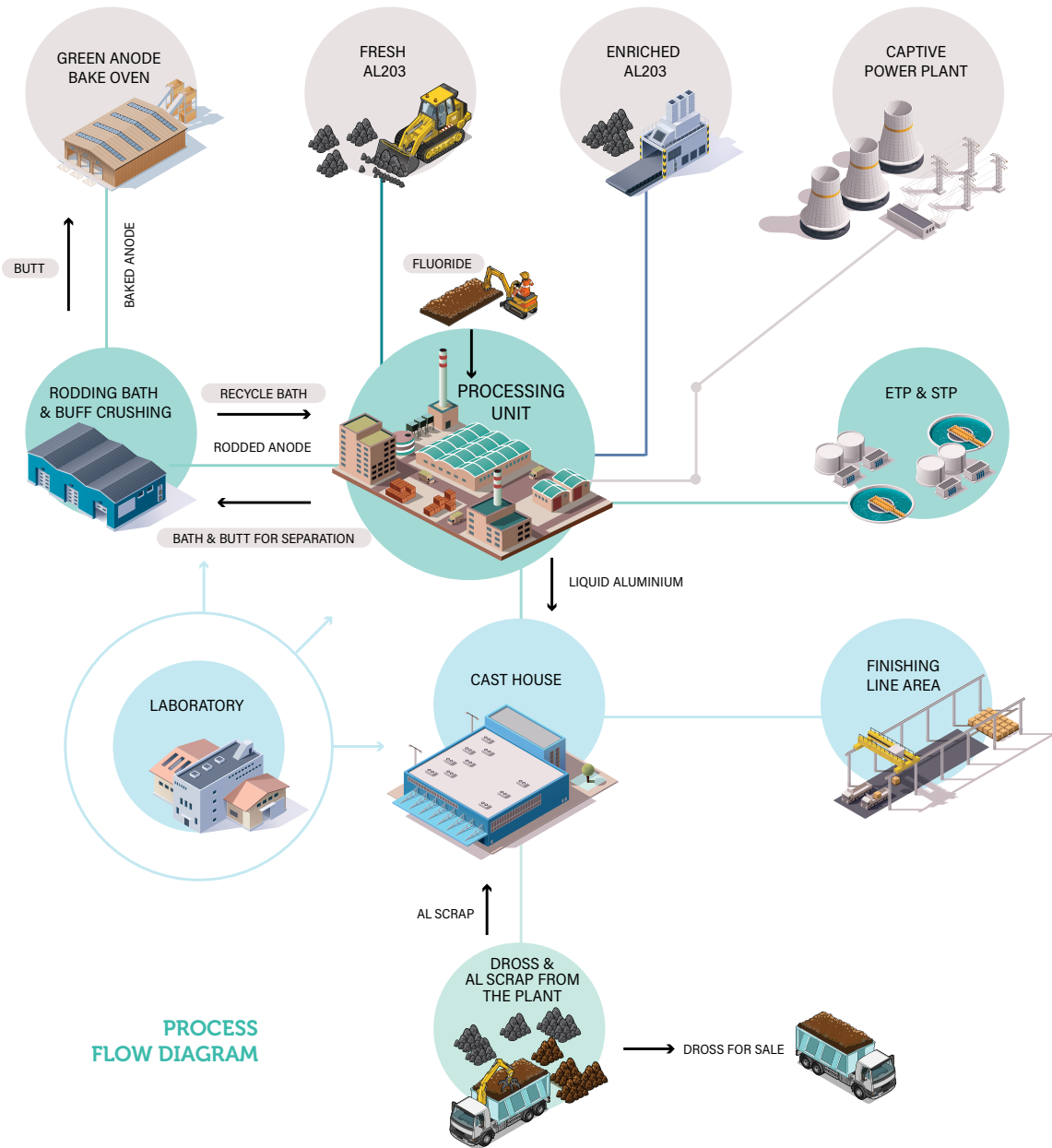
- **Jharsuguda (Odisha),  
Jamkhani coal mine,  
Radhikapur West coal mine**
- **Lanjigarh (Odisha)**
- **Korba (Chhattisgarh),  
Chotia coal mine,  
Mainpat bauxite mines  
Bodai Daldali bauxite mines**



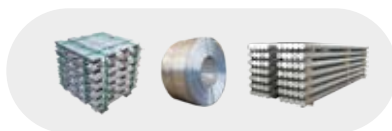
BUSINESS UNIT	PRODUCT	CAPACITY
Vedanta Aluminium-Jharsuguda	Aluminium	1.6 million metric tonnes per annum
BALCO	Aluminium	0.6 million metric tonnes per annum
Vedanta Aluminium-Lanjigarh	Alumina	2 million metric tonnes per annum

Hereafter, the Business Units have been referred as Jharsuguda, BALCO and Lanjigarh, respectively.

# Process Flow of Aluminium Production



FINISHED INGOT, WIRE ROD, BILLET

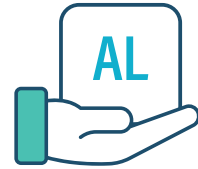






## Markets and Products

With annual aluminium production capacity of 2.2 MMT, Vedanta is the largest player in the domestic aluminium market. With enhanced fulfilment and long-term strategic relationships at the heart of our business aspirations, we offer our customers the best products, technical support and expertise, supply chain reliability as well as customizations perfectly tailored to their needs. We cater to an illustrious global customer base across more than 30 countries with a diverse portfolio of standard and customizable product offerings.



Aluminium Billets



Aluminium Wire Rods



Aluminium Slabs



Aluminium Alloy Ingots



Aluminium T-Ingots



Aluminium Rolled Product

Our state-of-the-art facilities at Jharsuguda and BALCO integrate best-in-class engineering technologies, intelligent automation, smart solutions, environmental safeguards, and sustainability-focused operating procedures to create value for our customers. Hawk-eyed quality assessment of raw material and finished products have made us one of the most preferred suppliers of aluminium to the developed markets.

Beyond India, the company has a strong presence in key markets like Europe, North and South America, Australia, South Korea, Saudi Arabia, UAE, and major Asian countries. Our product portfolio includes Aluminium Billets, Wire Rods, Slabs, Rolled Products, Flip Coils, T-Ingots, Sow Ingots, Alloy Ingots, P1020 Ingots and Hot/Liquid Metal, and we are increasingly focused on

expanding our value-added portfolio. Tapping into Aluminium's phenomenal intrinsic properties like high strength-to-weight ratio, exceptional design flexibility, superlative electrical and thermal conductivity, superior corrosion-resistance, durability and 100% recyclability, our high-quality primary and value-added products cater to diverse industry sectors such as electrical, automotive, building & construction, packaging, and numerous others. In cognizance of the increasing global demand of low carbon products, we are also exploring avenues to develop our product mix in line with evolving market trends.

Aluminium is a metal of strategic importance to India's national security and socio-economic development, with diverse applications spanning critical industries such as aerospace, space

exploration, national defence, building and construction, transportation, automobiles and electric vehicles, electrical distribution, solar power generation, packaging, and many others. Aluminium is the second most important metal in the world today and it has the potential to become the most important commercial metal in the near future. At Vedanta, we truly believe in exploring aluminium's limitless potential as the green 'Metal of the Future.'



Aluminium Sow Ingots



Aluminium Flip Coils



Aluminium Ingots (P1020)



Hot Metal/Molten Aluminium

## Our Economic Performance

We carry with us the responsibility of fulfilling the raw materials needs of critical industries, and creating a lasting positive impact on the environment, our communities, partners, and customers. We take our responsibility as harbingers of growth with great pride and sincerity. We aim to sustainably harness natural resources and turn them into tools of prosperity, and in the process transform the lives of millions of people linked to our operations.



Our world-class operations ensure effective utilisation of capital assets for sustainable transformation of natural resources into value-added products to create flourishing revenue streams. We distribute a significant portion of the wealth generated towards tax imbursements, expenditures in engagements with suppliers and contractors, salaries and other employee benefits, community investments, environmental sustainability campaigns and others.

Vedanta directly contributes 0.40% to India's GDP through its operations. The indirect impact of company through

its supply chain network, contribution to GDP, and ability to generate employment across the value chain is as large as one percent of India's GDP. The company also impacts the economy through the remuneration of its employees, a part of which is spent on consumption of goods and services, which further creates jobs and increases the country's GDP. This impact, known as the induced impact, is as large as 2.20% of India's GDP for which Vedanta Aluminium's contribution is around than 0.9% (Vedanta Aluminium - Jharsuguda (0.64), BALCO (0.26)).

**We aim to sustainably harness natural resources and turn them into tools of prosperity.**

### ECONOMIC VALUE GENERATION OF VEDANTA ALUMINIUM

ECONOMIC VALUE GENERATED AND DISTRIBUTED (INR MILLION)	FY 2020-21	FY 2019-20*
<b>Economic Value Generated (Revenues)</b>	3,10,926	2,86,815
<b>Economic Value Distributed</b>	2,63,113	2,80,195
a) Operating costs	2,03,388	2,35,079
b) Employee wages and benefits	9,846	8,300
c) Payment to providers of capital	49,140	35,597
d) Payment to government	82	276
e) Community investments (including donation)	657	944
Economic value retained (calculated as economic value generated less economic value distributed)	47,813	6,621

\* Values for FY 2019-20 are revised since the methodology for calculation has been aligned with that of Vedanta Limited

## Our Leadership Team



**AJAY KAPUR**

CEO, Aluminium & Power and MD, Commercial



**RAHUL SHARMA**

Dy. CEO, Aluminium Business



**CN SINGH**

CEO, Vedanta Limited, Jharsuguda



**ABHIJIT PATI**

CEO, BALCO



**GG PAL**

Dy. CEO, Alumina Business

*Mr. Rahul Sharma is currently leading Vedanta Aluminium since Mr. Ajay Kapur is no more with the sector/business.*





# Governance & Management Approach



# GOVERNANCE

## Governance and Management Approach

At Vedanta, we aspire to fulfil the expectations of our stakeholders through a process-oriented approach led by world-class research and development, discovery, acquisition, sustainable development, and responsible utilization of diversified natural resources.

### Trust



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

### Care



Commitment towards Zero-Harm to environment and neighbouring communities.

### Integrity



Demonstrate ethical behaviour commensurate with local and international practices.

### Respect



Listen to voices, opinions and concerns of stakeholders.

### Innovation



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

### Entrepreneurship



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

### Excellence



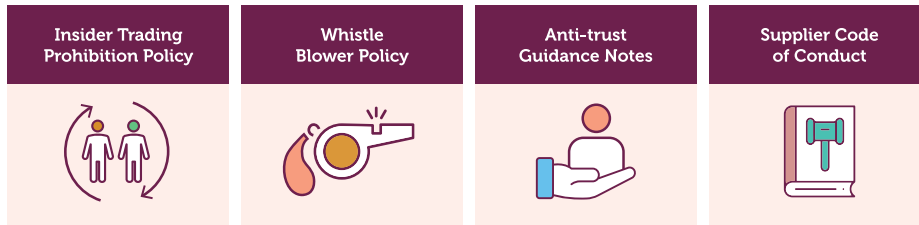
Deliver productivity improvement and cost reduction through benchmarking and best practices deployment.



# Code of Business Conduct and Ethics

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 [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)

Execution of the Code of Business Conduct and Ethics is supported by following policies, internal standards, and guidance notes:



These standards (publicly available on the Vedanta Limited website) are incorporated into our contracts in order to ensure awareness of and compliance by the third parties engaged. Our Whistle Blower Policy provides the formal mechanism for addressal of matters involving unscrupulous business conduct. The policy affirms to the confidentiality of the whistle blower employee, consistent with the requirement of code of business conduct.

Our Code of Business Conduct discourages acts of corruption and prohibits undue monetary payments

or other benefits to contractors, government officials, political outfits and campaigns, employees or any other person concerned, with the objective of securing un-disclosed business interests.

We have an active hotline and a dedicated e-mail ID, that can be used by our stakeholders to raise matters concerning suspected violation of our Code of Business Conduct and Ethics. These issues are then thoroughly investigated by our independent Management and Assurance team, and the outcomes are presented to the Audit Committee. We enforce

appropriate disciplinary actions, including warning, counselling, transfer, or dismissal from service, against the culpable employees, contractors, and vendors.

To make sure that all of our employees are well-versed with our code, mandatory training is provided to new recruits and refresher workshops on anti-corruption policies and procedures are conducted for our employees. We have a dedicated e-learning program on our Code of Business Conduct and Ethics.

## Our Performance

WHISTLE BLOWER CASES	
Number of Open Complaints on April 1st 2020	2
Number of Whistle Blower Cases opened in FY 2020-21	39
Number of Whistle Blower Cases upheld and found correct in FY 2020-21	13
Number of incidents in which employees were dismissed or disciplined for corruption	10
Number of incidents where contracts with business partners were terminated or not renewed due to violation related to corruption	7
Number of Public legal Whistle Blower cases brought against company, or employees	0
Number of Whistle Blower Cases closed in FY 2020-21	38
Open complaints on 31st March, 2021	3

# Risk Management

We identify, monitor, and mitigate our enterprise risks through a structured approach that strives for exploring the opportunities in the administration of these risks.

## RISK GOVERNANCE FRAMEWORK

At Vedanta, we have a robust risk governance framework that ensures resilience of our operational portfolio against potential risks across our value chain. This framework outlines the process of risk management and reporting of the latest developments to the Board of Directors. Moreover, it commands the involvement of management and other employees across the organisational hierarchy, in the handling of these enterprise risks.

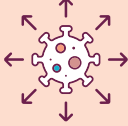


Our Board of Directors holds the accountability and ultimate responsibility of the effective management of risks and guides our approach towards handling these risks in a manner that upholds the core values of the Company and appreciates the prospects of our stakeholders. The Board's review comprises the Audit Committee's report on the progress of risk matrix, significant risks, and the mitigating actions. The Audit Committee is in turn assisted by the Group-level Risk Management Committee (GRMC), which facilitates them in evaluation of key enterprise risks from a 360-degree perspective, and design of internal control systems.








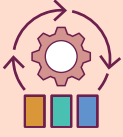

For detailed understanding about the governance framework, please refer [https://iar.vedantalimited.com/InteractiveAnnualReport\\_FY20/overview/business-risks/](https://iar.vedantalimited.com/InteractiveAnnualReport_FY20/overview/business-risks/)



## TOP BUSINESS RISKS AND RISK CULTURE AT VEDANTA ALUMINIUM

KEY RISK AREA	MITIGATION MEASURES
<p><b>SPREAD OF COVID-19</b></p> 	<p>COVID-19 has posed a challenge to businesses across the globe. We are continuously working towards mitigating the risks related to the ongoing pandemic and ensuring business continuity with uninterrupted supply of goods and services, while ascertaining the safety of our employees. Our inbound and outbound supply chain across rail, road, and ocean, including manpower, are functioning normally in the current pandemic situation. We have a COVID Council that is regularly reviewing the evolving scenario. To preclude unnecessary entry/exit of any personnel, we have put in place face recognition systems for our workforce. We carry out frequent sanitization of common spaces and workplaces, and have installed contactless sanitizers and foot-operated water taps to avoid any contamination. We are also carrying out vaccination drive for our employees, business partners, and their family members.</p>
<p><b>GOVERNANCE/ETHICS COMPLIANCE</b> pertaining to Code of Conduct, Anti-Trust Law, Anti Bribery &amp; Anti-Corruption, Foreign Corrupt Practices Act</p> 	<p>We understand that non-compliance with our Code of Business Conduct may be a high-risk area for business. In view of the same, we impart regular trainings to our workforce on ethics and governance practices and issues. We train 100% of our new hires in human rights and business ethics. To spread awareness about our Code of Business Conduct, any unscrupulous acts, and its consequences, we regularly communicate with our employees clearly stating the dos and don'ts. In case whistle-blower intimation on any violation is found correct upon investigation, we take strict action against the same.</p>
<p><b>OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT</b></p> 	<p>Safety and Occupational Health has always been most important to us and we are determined to ensure that our workforce feels safe while working at our facilities. In view of the same, each year, all 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. We closely monitor and investigate any safety related incident at our operations and remediate these immediately. We also proactively identify high potential incidents which may cause lost time injuries or even fatalities and ascertain immediate closure of any gaps regarding the incidents. (Refer to 'Safety and Occupational Health' section for more details)</p>

<p><b>MANAGEMENT OF ASH</b> generated at our coal-based Power Plants</p> 	<p>To ensure sustainable ash management, we are currently utilizing ash in various ways such as, construction of roads, as a raw material in cement industry, brick manufacturing, back-filling of our captive spent coal mines and abandoned stone quarries, reclamation of low-lying areas, strengthening of our ash dykes etc. Moreover, we are in the process of obtaining permission to further utilize our ash for backfilling of abandoned mines in proximity to our operations. (Refer to 'Waste Management' and 'Path to Circular Economy' sections for more information)</p>
<p><b>CYBER-SECURITY AND INNOVATION &amp; TECHNOLOGY</b></p> 	<p>Breaches in IT/ cyber security process may adversely impact business. Disruptions due to innovation/digitization, especially emerging technologies, may result in competitive pressures. We have invested in developing the requisite skills and capabilities in our workforce to thrive in a digital-first world, which includes conducting training and awareness sessions for sensitizing them on the risks related to cybersecurity. We have a detailed risk assessment plan in place that we review on an annual basis. To identify new risks related to Information Security, we conduct a cybersecurity audit on a yearly basis. In case any risk is identified following the audit, we take appropriate measures to close the same within the stipulated timeline. Our experts periodically carry out IT security reviews to continually improve our IT security performance, keeping in line with global trend developments. We also have defined systems in place to preserve our IT infrastructure. (Refer to 'IT and Cybersecurity' section for more information)</p>
<p><b>RAW MATERIAL SECURITY</b></p> 	<p>Given the unfavourable bauxite mining scenario, we have a high dependency on imported bauxite and caustic soda for our Alumina Refinery. For caustic soda, we are exploring options for local procurement, in line with our vision of domestic sourcing and supply. Since we operate thermal power plants, coal procurement is also crucial for ensuring business viability. For coal, we continuously monitor our inventory and production at captive mines to get early forecasts for taking necessary actions. During the year, we have secured the Radhikapur West coal block in Odisha, which is in proximity of our operations at Jharsuguda.</p>
<p><b>BAUXITE RESIDUAL DISPOSAL AREA</b></p> 	<p>We have undertaken several measures to enhance the storage capacity of our Bauxite Residue Disposal Area (BRDA) and utilize the space effectively without compromising its structural stability. We have collaborated with a global expert agency to design a wick drain for evacuation of water present in the existing bauxite residue slurry. We have also constructed a gabion wall, to further strengthen the structure of BRDA.</p>

<p><b>WATER MANAGEMENT</b></p> 	<p>We have taken several initiatives towards water stewardship at all of our facilities, working towards ensuring sustainable water footprint. Our Alumina Refinery is located in a water-stressed area as per the WRI Aqueduct tool. We have constructed a new intake well and inter connections to the existing pipe and transmission line. To ensure uninterrupted water availability at our facility, we have ensured pre-summer preparation in coordination with the Water Resource team. (Refer to 'Water Management' section for more details)</p>
<p><b>INFRASTRUCTURE AND LOGISTICS</b></p> 	<p>Adequate infrastructure is a prerequisite for smooth and uninterrupted supply of raw material to our facilities. We have identified this as a key risk at our BALCO and Lanjigarh sites. At Vedanta Limited, Lanjigarh, we have constructed a Y (loop line) connection of railway lines for managing raw material movement (traffic) and are in the process of doubling railway line from mid-station to plant. We have also carried out electrification of the railway track for better traffic management. At our BALCO plant, we have taken the permission from government authority to construct railway lines for 100% commodity movement through rake. We are also continuously working to upgrade our logistics infrastructure, creating avenues for mechanized handling of our raw materials such as coal and alumina.</p>
<p><b>STABILITY OF TAILING DAMS</b></p> 	<p>Our BALCO plant stores ash generated from our power plants in a dyke. To maintain the stability of these ash dykes, we have engaged an expert agency for independent assessment of the ash dykes' stability and dam break analysis. We have taken desired actions against the observations and recommendation of the assessment. Further, we also have an expert agency on board for geotechnical assessment, dyke health check-up through critical controls monitoring and dyke stability study. (Refer to 'Tailing Dam Management' section for more details)</p>

To foster an effective sustainability culture across the Sector, we have maintained risk registers for all our BUs as well as one for the Sector. We review and update all of our risk registers on a regular basis. We conduct monthly connects with the management at Sector level. We have also engaged third parties to carry out regular audits for our high-risk areas. Our MAS team conducts quarterly review of these risks and affirms the risk rating given to the risk.

We believe in rewarding people for their contributions and achievements. We have institutionalized several awards such as monthly Sector & BU CEO Awards, monthly Chairman Awards to individuals/teams and BUs for their superlative performance, quarterly Chairman Sustainability Award for BUs and so on. This supports in strengthening our risk management practices.

# Sustainability Management Approach

At Vedanta, we aspire for business prosperity through adoption of the Triple Bottom Line Model of sustainable growth across our value chain. As a part of our commitment towards upholding the interests of society, we strive for mitigating the undesirable impact of our operations through innovation, ambitious policies and targets, and cooperation of our stakeholders.

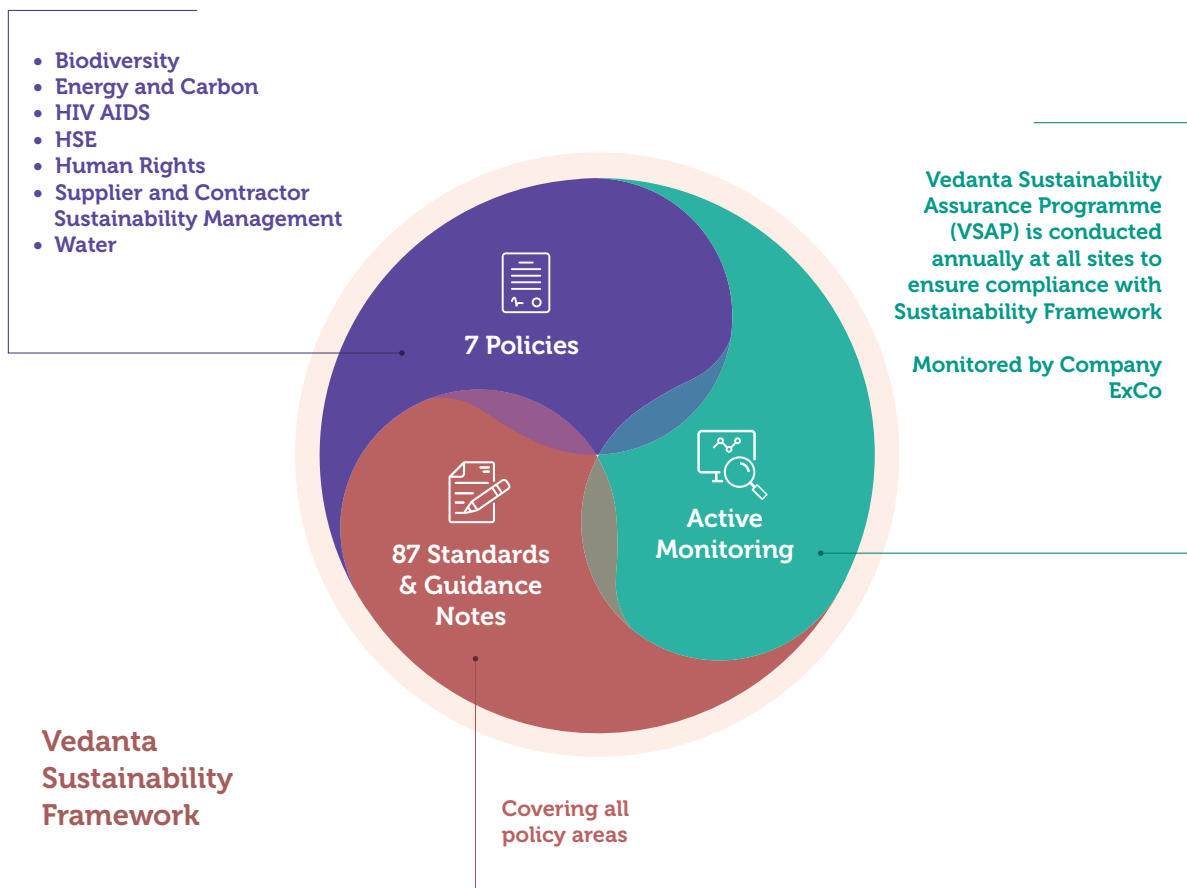
## VEDANTA SUSTAINABILITY FRAMEWORK (VSF)

The Vedanta Sustainability Framework defines the policies and standards that guide our actions on fulfilling our sustainability commitments. This framework reflects our core values, and embraces the principles and requirements of International Council on Mining and Metals (ICMM), United Nations Global Compact (UNGC), International Finance Corporation (IFC), and other relevant international sustainability frameworks.

### THE FOUR STRATEGIC PILLARS OF VSF

- Responsible Stewardship
- Building Strong Relationships
- Adding and Sharing Value
- Strategic Communications

<https://vedantaaluminium.com/sustainability/sustainability-policies-standards-guidance-notes/sustainability-standards/>



## Vedanta Sustainability Assurance Programme (VSAP)

The Vedanta Sustainability Assurance Programme is our sustainability assurance tool, used to ensure adherence to the VSF by all BUs. It has thirteen modules covering environment, health, safety, stakeholder management and human rights dimensions. VSAP is held annually as a third-party audit that assesses the compliance of our operations with various guidance notes, policies and standards laid down by the VSF.

The Sector Sustainability Committee and ExCo examine the outcomes of VSAP and present the key findings to the Board of Directors. In response to the gaps highlighted by VSAP,

respective BUs prepare management plans and undertake needful action to bridge the gaps. The progress of these initiatives is periodically reviewed and documented.



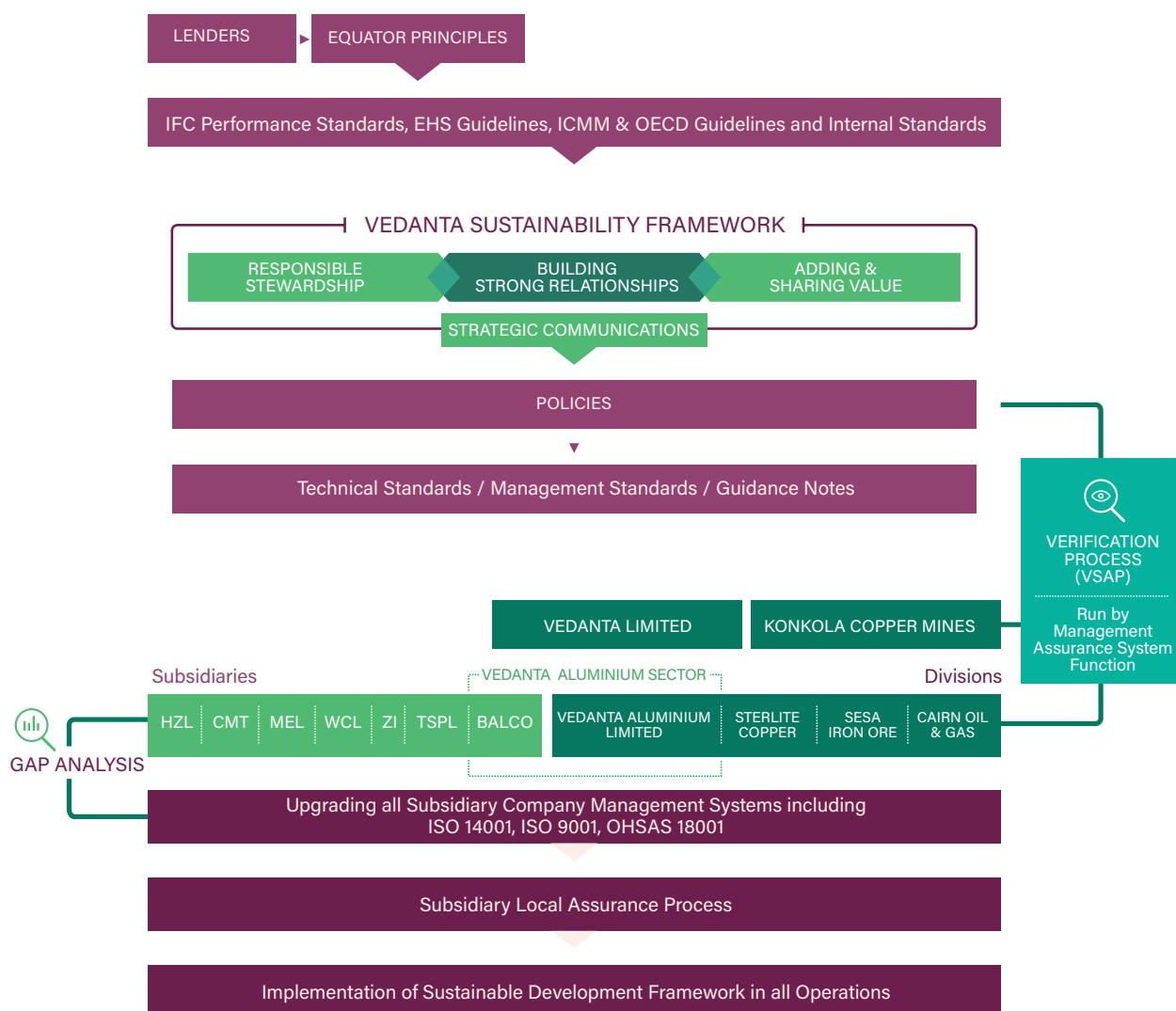
Employees planting saplings on World Environment Day

# Sustainability Governance

At Vedanta, we execute our sustainability agenda through dedicated efforts across the organisational hierarchy. For Sector, we have a clear structure for the execution of programmes, and implementation of policies and standards listed in the VSF. The Company level Sustainability Committee comprises an independent director, Vedanta CEO and BU CEOs who supervise the sustainability performance of the Company's business divisions.

The Sector Sustainability Committee and ExCo examine the HSE & Sustainability related business risks and performance, deliberate on them at periodic intervals and report the latest outcome to the Board of Directors. The Sector also has Sustainability & HSE Committees/forums which review sustainability and HSE risk and targets.

Vedanta Sustainability Framework and the various supporting committees, which oversee and implement the sustainability agenda at Vedanta are depicted below:





- SUSTAINABILITY COMMITTEE:** It oversees the Company's management of sustainability matters. It also monitors the HSE related risks and campaigns, targets and performance, engagement with host communities, and other related matters.
- AUDIT COMMITTEE:** It oversees the Company's financial reporting, the effectiveness of risk management framework, and analyses the findings of the internal and external auditors to ensure the resilience of internal financial controls.
- REMUNERATION COMMITTEE:** It reviews and recommends to the Board on the executive remuneration policy and determines the remuneration packages of each of the Executive Directors. It periodically reviews the annual variable pay structure, including stock incentives (performance linked incentive) that are rewarded based on the achievement of the Company and individual performance goals.
- NOMINATION COMMITTEE:** It reviews the size, and structure of the Board of Directors, Key Management Personnel and Senior Management, ensuring the appropriate balance of skills, experience, diversity, and independence in the Board, and senior management.
- EXECUTIVE COMMITTEE:** It administers the execution of strategic plans formulated by the Board, allocation of requisite resources to the designated authorities, and tracks the operational and financial performance of the Company.

## VEDANTA ALUMINIUM SUSTAINABILITY COMMITTEE

Recognizing the unique requirements of the sector, and for ensuring the effective sustainability management at the sector level we have a designated Sustainability Committee. The Committee consists of the CEO of the Sector, and the CEOs and Environment & Safety Heads of Business Units. In FY 2020-21, the Sustainability Committee held 7 meetings to deliberate progress and action plan on key HSE and Sustainability affairs, particularly HSE incidents and learnings, climate change, human rights, community engagement and community development endeavours.



## Materiality Assessment

We recognise that our mining and smelting operations carry potential sustainability risks, which are of significant concern to our management, investors, regulatory bodies, host communities, as well as other stakeholders. We are cognizant of our duty towards responsible management of these matters. We conduct materiality assessment to identify and evaluate the degree of our exposure to different risks. This helps us prioritise resource allocation and take appropriate decisions towards handling of these material matters.

### MANAGEMENT APPROACH

We periodically conduct materiality assessment to determine the degree of our impact on various stakeholders, posed by various critical matters and our preparedness against the associated risks. The assessment also brings to fore various opportunities that can be leveraged in the strategic handling of these issues to strengthen our social license to operate.

The Stakeholder Engagement and Materiality Assessment of Vedanta Aluminium is undertaken to evaluate the various environment, social and governance issues of material significance by employing the services of an independent third-party. The assessment fulfils the requirements of GRI. In the latest assessment, we considered seven stakeholder categories based on their degree of impact and influence.

**The various material issues in the environment, social and governance categories are prioritized in the following order:**

- Importance to external stakeholders
- Importance to Sector leadership
- Degree of regulatory impact
- Degree of reputation impact
- Degree of financial impact



Employees inspecting finished goods inventory at BALCO

# Material Issues for the Aluminium Sector

ENVIRONMENT	SOCIAL	GOVERNANCE
<ul style="list-style-type: none"> <li>• Energy and Climate Change</li> <li>• Solid waste Management</li> <li>• Water Management</li> <li>• Biodiversity</li> <li>• Air Emissions</li> <li>• Tailing Dams Management</li> <li>• Noise and Vibration</li> <li>• Resource Efficiency</li> <li>• Materials Management</li> <li>• Use of Recycled Materials</li> </ul>	<ul style="list-style-type: none"> <li>• Community Development</li> <li>• Diversity &amp; Equal Opportunity</li> <li>• Occupational Health &amp; Safety</li> <li>• Human Rights</li> <li>• Land Acquisition &amp; Rehabilitation</li> <li>• Talent Management</li> <li>• Local sourcing</li> <li>• Upholding rights of indigenous people</li> <li>• Local Employment</li> </ul>	<ul style="list-style-type: none"> <li>• Supply chain Sustainability</li> <li>• Compliance to Government Regulations</li> <li>• Brand Image</li> <li>• Business ethics</li> <li>• Grievance Management</li> <li>• Ethical Business Practices</li> <li>• Transparent Disclosure</li> <li>• Innovation</li> <li>• Governance for Sustainability</li> </ul>



# Stakeholder Engagement

At Vedanta, we believe in developing innovative solutions that cater to the interests of the Sector and our stakeholders simultaneously. We leverage the platform offered by stakeholder engagement to remain cognizant of the evolving needs and concerns of our diverse stakeholders. This facilitates informed business decision making on our part in a way that strengthens our relationship with our stakeholders.

## MANAGEMENT APPROACH

We believe that harmonious and value-sharing relationships with stakeholders are a prerequisite for strong and sustainable growth of an organization. At Vedanta, we strive to identify and deliver upon opportunities that create long-term value for our stakeholders. Trust-driven relationships provide conducive environment for identifying unknown risks across our business, and developing mitigation strategies driven by cooperation and collaboration with these stakeholders.

### OUR APPROACH TO STAKEHOLDER MANAGEMENT CONSISTS OF FOLLOWING STEPS:

- Stakeholder Identification
- Stakeholder Mapping and Analysis
- Stakeholder Engagement Plan
- Execution of Plan



We begin with identifying those who are affected directly and indirectly by our operations, followed by scientifically mapping them to ascertain the degree of impact. Stakeholder analysis helps us categorize the stakeholders based on the priority of engagement i.e., their importance and influence on the affairs of the Sector or the projects. We follow this with periodic consultations with them to ascertain their dynamic needs and concerns related to our operations, which in turn is followed by rolling out dedicated initiatives for advancement of mutual interests.



Employees at Alumina Refinery discussing

## Stakeholder Engagement Programmes

STAKEHOLDER	SIGNIFICANCE TO BUSINESS	ENGAGEMENT MECHANISMS
<b>Suppliers &amp; Customers</b>	<ul style="list-style-type: none"> <li>● Direct influence on production and sales</li> <li>● Vital for calibrating business processes as per sustainability commitments, evolving regulations, and dynamic market trends</li> </ul>	<ul style="list-style-type: none"> <li>● Supplier and vendor meetings</li> <li>● Customer satisfaction surveys</li> <li>● Feedback Mechanism/ Grievance Redressal</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>● Fundamental for business growth</li> <li>● Ambassadors of organizational values and vision of nation building</li> <li>● Accomplishment of corporate commitments and targets</li> </ul>	<ul style="list-style-type: none"> <li>● Various workshops, forums, meetings, and feedback sessions</li> <li>● Performance management sessions</li> <li>● Various committees at the plant level: mentor programme, event management committee and welfare committee, women's clubs, etc.</li> </ul>
<b>Civil Society / Business organizations</b>	<ul style="list-style-type: none"> <li>● Exchange of best practises in the industry</li> <li>● Custodians of community interests</li> <li>● Facilitates identification and evaluation of business impacts</li> </ul>	<ul style="list-style-type: none"> <li>● Partnerships and membership</li> <li>● Working relationships with organisations on specific projects</li> <li>● Engagement with local civil society organizations and NGOs</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>● Direct impact on our social license to operate</li> <li>● Health and safety risk exposure due to our operations</li> <li>● Vital for access to low-cost labour, and other services</li> </ul>	<ul style="list-style-type: none"> <li>● Community group meetings</li> <li>● Panchayats</li> <li>● Public Hearing</li> <li>● Grievance Mechanism</li> <li>● Cultural events</li> </ul>
<b>Government</b>	<ul style="list-style-type: none"> <li>● Guardians of ecological and public interests</li> <li>● Partners in societal upliftment</li> <li>● Provides the regulatory framework (taxation, licensing, infrastructural and economic playing field for growth)</li> </ul>	<ul style="list-style-type: none"> <li>● Participation in government consultation programmes</li> <li>● Collaboration with national, state, and regional government agencies at business operational level</li> </ul>

### TRANSPARENCY

At Vedanta, we foster trust-driven relationships with our stakeholders. It is the confidence expressed by these stakeholders in our corporate undertakings that encourages greater efforts in our future endeavours. With trust as the foundation of our day-to-day engagements, we strive for transparency in these interactions to ensure an open dialogue and fulfilling everlasting relationships.

We strictly adhere to credible reporting of our business performance. Transparent reporting ensures informed decision making by our investors and facilitates tracking the progress of our ambitions with respect to our long-term goals.

## Sectoral Policy Advocacy

Vedanta Aluminium has been at the forefront of driving various policy interventions as part of business sustainability initiatives, working in collaboration with the Government, think tanks and eminent industry associations like the Aluminium Association of India (AAI), Federation of Indian Minerals Industries (FIMI), Federation of Indian Chambers of Commerce & Industry (FICCI), Confederation of Indian Industry (CII), Associated Chambers of Commerce and Industry of India (ASSOCHAM) etc. We have been actively engaged in formulation and implementation of various policy reforms for the Indian Aluminium Industry by creating vision

papers for Aluminium Industry with NITI Aayog and Ministry of Mines, increasing usage of aluminium for energy efficiency, promotion of circular economy by encouraging utilization of ash and bauxite residue in various applications, and so on. We are also working on formulation of BIS quality standards for various aluminium products to ensure quality of end-use products. The Indian Government has also extended its support in the form of various policy recommendations through Report for Strategy on Aluminium Resource Efficiency (Joint Report by NITI Aayog and Ministry of Mines) and the National Non-Ferrous Metal Scrap Recycling Framework,

2020 issued by Ministry of Mines, to promote an organized Scrap Recycling Industry and benchmark quality standards for aluminium in India.

We would like to state here that our code of business conduct explicitly forbids collaborations with political organisations, and other interest groups that seek to influence national policies, and that our leadership discourages corporate contributions, in any form, that support the activities of these factions.



Aluminium has critical usage in renewable power generation

# Supply Chain Management

Being one of the key stakeholders, it is extremely important for us to ensure that our suppliers follow ethical practices and operate in a sustainable manner. We are committed to respect and uphold human rights and expect the same from our suppliers. To ensure the same, we have various mechanisms in place.

## MANAGEMENT APPROACH

We follow the Company's Supplier Code of Conduct which mandates our suppliers to operate in line with Vedanta's policies and standards. Our Supplier and Contractor Technical Standard is aligned to IFC performance standards, which allows us to achieve the primary objective of ensuring high quality of performance and ethical conduct from our suppliers. Through our Supplier and Contractor Sustainability Management Policy, we encourage our suppliers to assimilate our principles and practices into their ways of working.

We believe that it is our duty to source all our goods and services sustainably and responsibly. We have more than 2600 suppliers across our supply chain. To ensure that all of our suppliers have well-established sustainability management systems and procedures in place, we have a standard ESG criteria for which all our suppliers are screened while onboarding.

## SUPPLIER SCREENING CRITERIA

ENVIRONMENT	SOCIAL	GOVERNANCE
<ul style="list-style-type: none"> <li>● Environmental Objectives as a result of Environmental Impact Assessment</li> <li>● Statutory Environmental requirements</li> <li>● Energy consumption and GHG emission management</li> <li>● Water management</li> <li>● Waste management and minimizing packaging material</li> <li>● Proper handling of hazardous chemicals and wastes</li> <li>● Air emissions and pollution control equipment</li> </ul>	<ul style="list-style-type: none"> <li>● Employment Practices</li> <li>● Labour Management Practices</li> <li>● Occupation Health and Safety Practices</li> <li>● Training and Education practices</li> <li>● Diversity and Equal opportunity</li> <li>● Non-Discriminating</li> <li>● Freedom of Association and Collective bargaining</li> <li>● Child labour</li> <li>● Forced or Compulsory Labour</li> <li>● Security Practices</li> <li>● Rights of Indigenous Peoples</li> <li>● Human Rights Criteria</li> </ul>	<ul style="list-style-type: none"> <li>● ISO 9001, ISO 14001, ISO 45001, SA8000, ISO 50001 and other Certifications</li> <li>● Ethics policy and Code of Conduct practices</li> <li>● Corruption and bribery</li> <li>● Turnover</li> <li>● Raw Material Sourcing</li> <li>● Previous clients</li> <li>● Risk Management</li> <li>● Incident management</li> <li>● HSE policies, objectives, and trainings</li> <li>● Leadership commitment to Sustainability culture</li> <li>● Sub-contractor management process</li> <li>● Skilled and Unskilled labour</li> </ul>



**100% of our suppliers are screened for ESG criteria while onboarding.**



Employee interacting with Business Partner at work

If the suppliers fulfil our screening criteria, we undertake an assessment of their credentials based on the criticality of procurement. We also assess the suppliers through the feedbacks received from the companies/teams to which they have supplied goods/services in the past, for robust due diligence of their commitment towards human rights and ethical practices. To further enhance transparency and ensure that our suppliers are as determined as us when it comes to imbibing ethical practices within their business, we deploy cross functional teams to visit the suppliers' operations and audit their ESG practices. We have a defined checklist for Modern Slavery Act (MSA) and accordingly, we audit our

suppliers as per the standard criteria. This enables us to have a clear line of sight on the on-ground practices of our suppliers.

We have classified our suppliers into various categories. Out of these categories, we have identified critical suppliers who have significant impact on market success/survival of the company. We assess our critical suppliers on a regular basis to understand their sustainability risk category. In case a supplier is categorized as a Sustainability High-risk, we make sure that they take appropriate measures to remediate the same.



Night view of inbound supply rake

# Information Technology Management

We understand that the security of our information and data are of utmost importance for the Company to run smoothly and successfully. Information is a critical asset of any business and to thrive in a competitive marketplace, it is imperative that we protect our business information from any leakage or threats.

We realize that in today's world of digitization, information security/ cybersecurity is a major challenge faced by industries and businesses across the globe. We take extreme care in protecting our information from loss, theft, destruction, unauthorized alteration, and access. Our Information Security Policy helps us develop a robust management strategy that protects our information from viruses, hackers, and industrial espionage to information systems, which in-turn enables our business to run in a successful and profitable manner. This policy assists our cybersecurity team to achieve our objective of maintaining confidentiality by preventing unauthorized disclosure of information stored/processed in our systems; and maintaining data integrity by preventing any accidental, unauthorized, or deliberate alteration or deletion of information, while ensuring availability of the information to the authorized personnel.

Our IT Security organization structure consists of two committees. The first is Vedanta Limited Information Security Committee (VLISC) which is responsible for the information security and strategy for our business and beyond. And the second is, the Business Information Security Committee (BISC), which manages the information security at individual business level. Our Information Security policy is reviewed and updated by the Information Security Committee (ISC) as well as by Vedanta's Risk Management Committee on a regular basis.

We have carried out a detailed risk assessment for all of our units regarding the risks pertaining to cybersecurity. Each risk is divided into categories such as information, service, software, physical asset, etc. Based on the type of risk, experts in our IT team have been assigned the responsibility of effectively managing and mitigating the risks at each site, along with a defined action plan and timelines. We have ensured that the roles and responsibilities of handling the risks are assigned to the people according to their expertise in the respective domains. The overall responsibility for managing the cybersecurity risk at executive level lies with the Chief Information Security Officer (CISO).

**All our operations  
are ISO 27001 –  
Information Security  
Management  
Certified.**

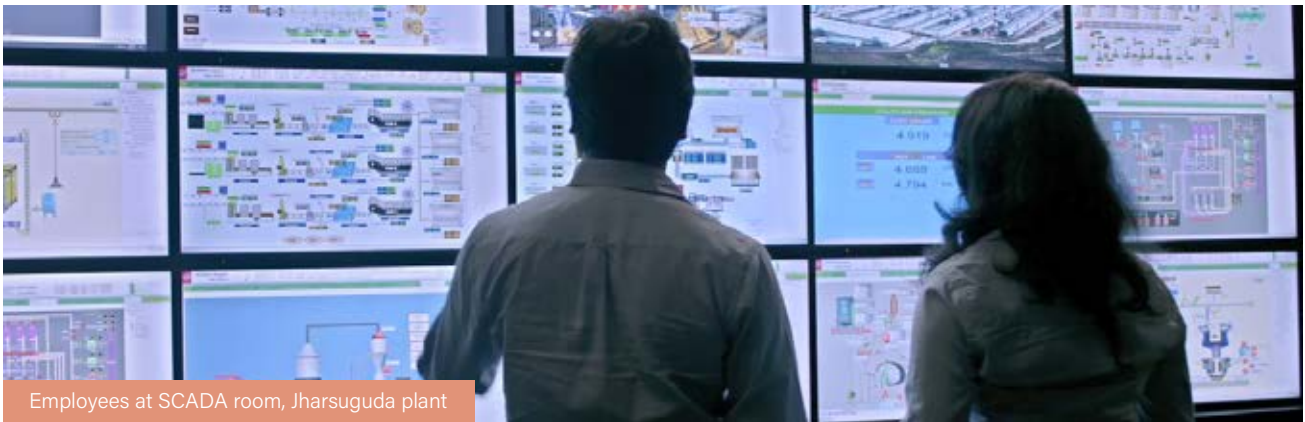
To prevent breach of security and to protect our information and data, we take several measures within the Sector. We continuously work towards building strong frameworks and procedures aligned with global best practices and international standards. We also keep our tools and technologies updated

to those that are best-in-class for information security so as to maintain a robust security management system.

As a part of our Asset Management, we classify all our assets based on their value, legal requirements, criticality, and sensitivity. Moreover, all our assets, be it information, software, physical assets, or services are categorized into four categories namely Public, Internal, Restricted and Confidential. This classification helps us handle the assets depending upon their susceptibility to risks and put our focus on those that are most at risk.

We are aware of the importance of sensitizing our people on the threats relating to cybersecurity and that in absence of proper knowledge, one may pose a threat to any critical information unknowingly. In view of the same, we ensure that all our employees, contactors and relevant third-party users of our information assets undergo an Information Security and Awareness Programme. Apart from this, each of our IT employees, IT contactors and IT third-party data users is made to sign confidentiality agreements, which indicates their acceptance to protect and maintain the confidentiality of all our sensitive information assets.

We have designated High Security Zones (HSZ) at all our plants, which are the areas hosting all our critical IT infrastructure. Each zone has an appropriate level of access restrictions and requirements for the authorities to access them. Only those personnel, whose job description demands



Employees at SCADA room, Jharsuguda plant

access to these restricted areas, are authorized to enter an HSZ. We take appropriate measures in ensuring that no unauthorized personnel can enter an HSZ. In addition, all offices including the HSZs are equipped with fire-fighting apparatus, which allows us to respond to any emergency swiftly and ensure that no equipment is damaged. Further, to prevent any loss or harm from water flooding, we have deployed appropriate safety measures and physical protection. In case it becomes unavoidable to carry the equipment in and out of the plant premise, we provide adequate physical and password security for restricting the information availability to authorized personnel.

Before exchange of any critical information/software with other organizations, our employees are made to sign a formal agreement that clearly specifies the responsibilities, software and data ownership, protection measures and encryption requirements. During communication of information through e-mails, all attachments are scanned through anti-virus engine. Our antivirus application and processes ensure early detection, efficient containment, and eradication of malicious code, if any is found. As part of our risk assessment, we also consider the risks posed to our assets due to outsourcing of our requirements to a third party. All such parties are required to sign a formal contract that states our

requirements regarding the security control, service delivery measures and timelines, and we ensure that they adhere to the same through regular audits.

All our information is backed-up on a regular basis and kept safe with adequate access restrictions in a fire-resistant custody. In case of any loss, the backed-up data is provided to the desired personnel only after following a standard approval process.



Our Business Continuity Management Framework includes a comprehensive Disaster Recovery Plan that is implemented in order to maintain and/or restore any critical business operation, which is supported by IT systems. This includes well defined procedures to recover from any emergency in an efficient manner within required timescales to minimize

any impact on the operation due to interruption or failure of any critical business process. The Disaster Recovery Plan is reviewed and tested on an annual basis. The test results are communicated to the senior management and appropriate measures are undertaken to restore the effectiveness of the plan in case of any incorrect assumptions, oversights, or changes in IT infrastructures.

We have a robust incident management system in place for any security vulnerability, security malfunctions or any violations to our policies and procedures that may expose/exploit our information and compromise the confidentiality, availability, or integrity of our system. We have implemented strong procedures for detecting, reporting, and responding to any incident. All of our employees, contractors and third-party users of the information systems are made aware our incident reporting procedure. In case any incident is reported, it is immediately escalated to respective authorities and all responsibilities and procedures are defined along with specific timelines for effective, orderly, and quick response to the incident. Learnings from these incidents are imbibed in our procedures to ensure that such incidents are not repeated in future.

## Digital Initiatives

Innovation is one of the pillars of Vedanta which, combined with digitization, accelerates our journey towards achieving a higher level of business excellence.

Innovation and excellence are the hallmarks of Vedanta's exceptional performance culture. Our vision for Vedanta is to not only develop business applications, revenue models and new products, but truly invent indigenous technologies ourselves which are perfectly customized to our assets and processes. This vision resulted in the formation of our Innovation Cell, which is powered by digitalization. This platform is used by our young and talented workforce to put forth fresh and disruptive ideas to solve complex business challenges. This not only gives our employees the opportunity for collaborative and participative problem solving, but also allows us to benchmark our performance against the global best through inter-industry and industry-academia collaboration.





## Availability Based Tariff (ABT) Real-Time Dashboard at Power Plant

BALCO

### CASE STUDY

Our team at BALCO has developed an ABT Real-Time Dashboard at our Power Plant, which helps in real-time monitoring and tracking of the actual and scheduled power generations and any violations or penalties in the same. It is an integrated solution which helps power-generating companies in balancing the load, managing power schedules, maximizing revenue, and avoiding grid penalties.

The dashboard displays complete data of the generator in real time including auxiliary consumption, scheduled vs injected power, average frequency, Deviation Settlement Mechanism (DSM) rate, etc. We have also installed a dashboard for each unit of the power plant which reflects the scheduled vs real-time generation of each unit as well as unit-wise suggestions to ramp-up and ramp-down the generation. This helps to reduce DSM charges and maximize our power generation making our operations more reliable, avoid wastage of any resources including fuel and enhance our gains. In addition, the real-time working status of the meter is displayed in an organized and graphical manner, allowing our employees to fetch and comprehend the status easily and quickly from the dashboard. To reconcile DSM charges with grid, complete DSM charges are digitally calculated and published for defined timeslots in the DSM calculation sheet. The system also digitally calculates the savings based on the total scheduled vs injected energy, total receivable and payable DSM amount, total fuel costs, etc. for the latest timeslot. This digital initiative enables only the authorized personnel to access the modules and reports, thereby ensuring information security.

This system not only improved our bottom line by maximizing savings and reducing DSM costs, but also helped in increasing our efficiency and plant reliability by maximizing power generation.







# Environment



## Environmental Stewardship

Building environmental stewardship is fundamental to our vision of nurturing communities and nature. Being the largest aluminium producer of India, we acknowledge our responsibility towards ensuring the integrity of our natural environment.

### MANAGEMENT APPROACH

We are committed towards reducing the environmental impact of our operating portfolio through a structured approach that emphasises the adoption of best-in-industry practises. This includes consistent improvements in efficiency of resource-intensive processes, adopting state-of-the art technological solutions, exploring circular initiatives, and incorporating 'Design for Sustainability' principles. Our Sustainable Development Framework

encompasses policies and standards that direct our efforts towards managing our environmental footprint. The coverage of our environmental reporting extends to 100% of our business operations.

Climate change and energy management, waste management, water management, air emissions, Bauxite Residue Storage Area (BRDA)/ ash dyke management are the material environmental issues that

our leadership and other stakeholders have identified. As part of our approach towards the administration of these critical issues, we devise time-bound targets and periodically review our progress against these objectives. Moreover, we engage independent experts to guide us on improving the eco-efficiency of our operations. Our mitigation plans advance our efforts towards true realization of UN Sustainable Development Goals (SDGs).



Plantation at plant premises



## OUR PERFORMANCE

Given the nature of our business, our operations are undertaken in strict adherence to established Standard Operating Procedures, failures in compliance to which could result in adverse situations. As per the industry norms, environmental incidents can be classified into 5 categories depending upon the severity of the impacts. While category 1, 2 and 3 incidents have insignificant to moderate short-term impacts on a limited area/people

that might be reversible in nature, category 4 and 5 environmental incidents are serious events that may have a medium to long term impact on wide scale area/large number of people and may take moderate to long time for recovery. Like previous year, there was no category 4 or 5 environmental incident across our operating portfolio in this reporting period.

REPORTING PERIOD	CATEGORY 4 INCIDENT	CATEGORY 5 INCIDENT
2018-19	1	0
2019-20	0	0
2020-21	0	0

Apart from this, during the year, there were no environmental violations at any of our operations and we have not paid fines above USD 10,000 related to environmental or ecological issues.

- All our sites are ISO 14001 certified
- No category 4 or 5 incident



The scenic beauty of our Lanjigarh operations

# Climate Change and Energy Management

In the present era, countries across the world are realising greater vulnerabilities to the impacts of climate change like never before. As a prominent global aluminium producer, we believe that corporations have the responsibility towards channelising their resources and collaborating with institutions, both academic and regulatory, in the global fight against climate change.

## MANAGEMENT APPROACH

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. We consistently track and manage our carbon footprint with respect to achievement of these commitments.**

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. For that purpose, Vedanta's Energy and Carbon Management Policy emphasises adoption of global best-practises in energy management. We have rolled out many campaigns for optimisation of specific energy consumption at our production processes. Apart from lowering our carbon impact, these initiatives make a strong business case for cost optimisation of our energy-intensive smelting operations. Our long-term strategy focuses on migrating to low carbon energy mix, with gradual shift from fossil fuels to renewable energy sourcing.

We are in agreement with the recommendations made by the Task Force on Climate related Financial Disclosures (TCFD). In alignment with our Company's Carbon Forum, we have initiated work towards executing our carbon management practises as per the TCFD Framework.



Employee working in rectifier area

## CLIMATE CHANGE STRATEGY

The energy source is the key determinant of carbon footprint in the aluminium business. In order to ensure continuous supply of power to our smelters, we meet a major portion of our energy requirement from our Captive Power Plants (CPP) employing coal-based thermal technologies. We recognize the potential climate impact resulting from our business activities and strive for practicable emission reductions. Towards this, we are undertaking a portfolio of initiatives ranging from optimisation of boiler efficiencies in our power plants to upgradation of cathode in the smelter potline, to improve our process efficiency, and thereby reduce carbon emissions.

## CLIMATE RISK MANAGEMENT

Vedanta's Risk Governance Framework defines the procedures to identify, evaluate and manage material risks originating from activities across our value chain. This robust framework facilitates the balancing of risk-reward equation expected by stakeholders.




Our climate goals are integral to our corporate strategy. For every operational and investment decision, we



incorporate considerations of the associated carbon footprint and its potential to contribute to Vedanta's pledge of moving towards carbon neutrality. More information about our governance of risks and assessment of strategic opportunities can be found at [https://iar.vedantalimited.com/InteractiveAnnualReport\\_FY20/overview/business-risks/](https://iar.vedantalimited.com/InteractiveAnnualReport_FY20/overview/business-risks/)



Families of employees planting saplings

## CLIMATE CHANGE – EMERGING RISK

RISK	DESCRIPTION
<p><b>POLICY AND LEGAL</b></p> 	<p>There has been an increase in global demand for stringent regulations on reducing greenhouse gas emissions in developing countries. Indian policymakers may introduce legislations with the objective of reducing greenhouse gas emissions. The ground effects of these legislative upgradations may include, but are not limited to, increased costs of fossil fuels, and tighter emission reduction targets.</p> <p>Further, the Government of India has introduced the Renewable Purchase Obligations (RPOs) to promote renewable energy and reduce carbon intensity of the grid power. Given that a major portion of our energy is sourced from coal-based thermal power plants, we are incurring significant expenditure in the purchase of Renewable Energy Certificates (REC). This cost is likely to increase as the RPO requirements go up year-on-year.</p> <p>Increasing the scope of regulations against climate change, European Union, one of our main markets, is exploring a carbon border tax to curb imports of high-carbon footprint aluminum products from the markets with less stringent climate regulations beginning FY 26, and provide a level playing field to their domestic industries regulated with stringent climate legislations. This may impact market accessibility and / or commercial viability of our aluminium business in Europe.</p> <p>These evolving regulations have the potential to impact our operational costs in the long-term.</p>
<p><b>TECHNOLOGY</b></p> 	<p>The development and deployment of innovative cleaner technologies can potentially lead us forward on our ambitious emission reduction and energy efficiency targets. The adoption of new technology is, however, usually a slow process since the returns are highly uncertain and may impact operating costs.</p> <p>At the same time, we are also cognizant of the fact that the introduction of disruptive carbon-neutral technologies by our market competitors could also make our products less cost competitive and impact our profitability in the long run.</p>
<p><b>MARKET</b></p> 	<p>In the coming years, the market demand for low emission products is bound to increase across the world. The growing awareness about the impacts of climate change may pose challenges to market competitiveness of aluminium products from companies with higher carbon footprint.</p>

<p><b>REPUTATION</b></p> 	<p>Failure to comply with existing regulations or inability to implement adequate controls for mitigation of our climate impacts may risk our reputation with our customers, local governments, and other key stakeholders. If these concerns are not properly addressed, it may affect our long-standing relationships with key investors.</p> <p>We have been consistently reviewing investor expectations and the required response at various forums such as Company’s ExCo, Carbon Forum, HSE ExCo and Risk Committee. Vedanta has a strong legacy of exceeding the expectations of its stakeholders in upholding its social license to operate.</p>
<p><b>PHYSICAL</b></p> 	<p>Our operations are likely to be subjected to significant physical risks arising from climate change. These include increased exposure to extreme weather events like floods and droughts, rising sea levels, changing storm patterns and intensities, and rising mean temperature levels.</p> <p>In August 2019, there was an extreme rainfall event at our smelter unit of BALCO that resulted in heavy water logging at the shop floors and roads, affecting the entire plant operations. Since then, we have undertaken a Flood Risk Assessment study at BALCO through Hydrological Analysis and Hydraulic Modelling for extreme rainfall event. Basis the results of this assessment, we have debottlenecked the drainage system to handle extreme rainfall events in the future.</p> <p>High temperatures also pose health risk to our employees, especially those involved in outdoor operations. To manage potential heat risk, we have adopted the hierarchy of control including advanced protective technologies, regular monitoring of asset and people health status, provision of PPEs to each personnel, job rotation at periodic intervals, etc.</p>

**OPPORTUNITIES**

Aluminium is deemed as the Metal of the Future as it paves way for smooth transition to a carbon free economy. Its demand has been increasingly growing in construction, transportation, packaging, and energy transmission sectors on the account of its high strength-to-weight ratio, exceptional design flexibility, superior corrosion resistance, and 100% recyclability without quality deterioration.

Aluminium products, being lightweight, offer enormous benefits in terms of Scope 3 reduction, and will play a critical role for sustainable development of India’s key industry sectors such as infrastructure, solar power generation, transportation, automobile and electric vehicles, aerospace, and aviation, and more.



Van Mahotsav celebration at plant premises

## GOVERNANCE MECHANISM

The ultimate responsibility and accountability for our climate strategy rests with Vedanta's Board of Directors. Our Company's Risk Management Committee, Audit Committee, and Sustainability Committee supports the Board in regular assessment of operational effectiveness of the dedicated mitigation programmes and control systems for climate change risks. The Sustainability Committee is tasked with identifying emerging climate change risk and opportunities relevant to our business, setting and periodic reviewing of emission reduction targets that align with Vedanta's pledge of moving towards carbon neutrality.

At management level, the Chief Sustainability Officer of the Sector is responsible for driving the implementation of climate action plans and regular reporting of its progress to the Sector ExCo and Sector Sustainability Committee.

## CLIMATE ACTIONS

We are committed to combating the emerging risk of climate change. Our emission reduction programs majorly focus on optimisation of our smelting process and low carbon transition of the same. We have certification to ISO 50001 for Energy management. We have successfully

conducted trial of co-firing of biomass with coal at our Captive Power Plants at Jharsuguda and BALCO. The outcomes of this trial are promising, and now we are exploring opportunities for development of sustainable supply chain for commercial adoption of biomass co-firing.

We are committed to increase our share of renewable power as part of our transition to low-carbon economy. For FY 2020-21, we purchased around 308 Million Units equivalent of renewable power, including power from renewable sources and Renewable Energy Certificates.

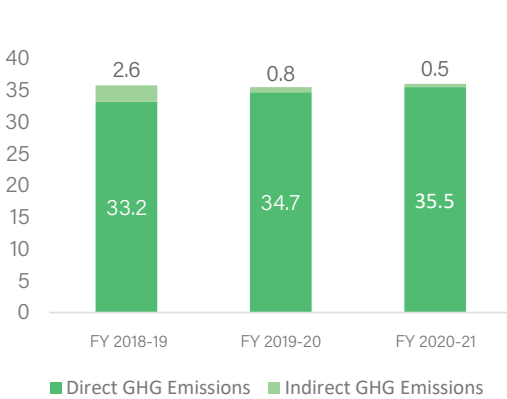
Our Carbon Forum reviews and finalizes BU level GHG emission reduction goal towards the materialisation of Vedanta's climate change goals. This forum provides a platform for comprehensive analysis and deliberation of climate risks and potential opportunities, progress towards GHG emission reduction targets, evolving policy risks, sharing best practices, among others. Our Company's ExCo and other committees like Risk Management Committee and the Sustainability Committee review the findings of the Carbon Forum in order to channelise Company-wide efforts towards Vedanta's climate action commitments.

## EMISSION REDUCTION TARGETS AND TRENDS

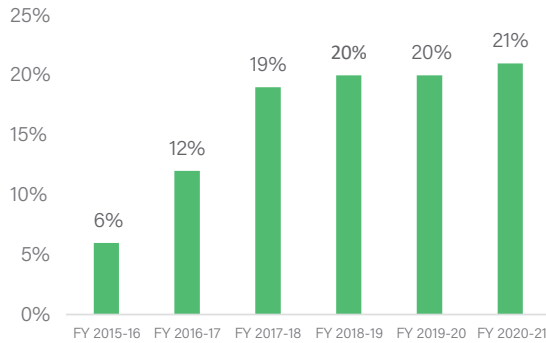
In FY 2020-21, the total GHG emissions of our Aluminium Business was around 36.0 million tCO<sub>2</sub>e, of which 35.5 million tCO<sub>2</sub>e were direct GHG emissions (Scope 1) and 0.5 million tCO<sub>2</sub>e indirect GHG emissions (Scope 2). At Aluminium Sector level, our total GHG emissions amounted to 41.9 million tCO<sub>2</sub>e with 41.4 million tCO<sub>2</sub>e direct GHG emissions (Scope 1) and 0.5 million tCO<sub>2</sub>e indirect GHG emissions (Scope 2). Out of these, the perfluorocarbon (CF<sub>4</sub> and C<sub>2</sub>F<sub>6</sub>) emissions were estimated at 0.81 million tCO<sub>2</sub>e (0.23 million tCO<sub>2</sub>e at BALCO and 0.58 million tCO<sub>2</sub>e at our Jharsuguda facility). We have significantly reduced our GHG emission intensity by 21% for our Aluminium Business with 2012 as baseline. We further aim on reducing our GHG emission intensity by 24% over 2012 baseline by 2025.

### Aluminium Business

GHG Emissions (Million MT of CO<sub>2</sub> Equivalent)

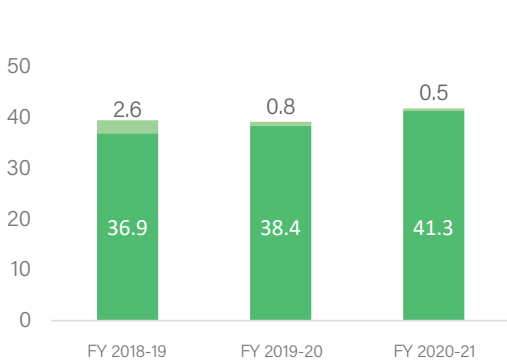


Percentage Reduction in GHG Emissions Intensity over Baseline for Aluminium Business

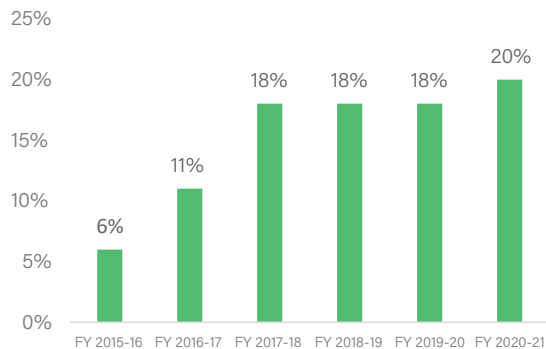


### Aluminium Sector

GHG Emissions (Million MT of CO<sub>2</sub> Equivalent)



Percentage Reduction in GHG Emissions Intensity over Baseline for Aluminium Sector



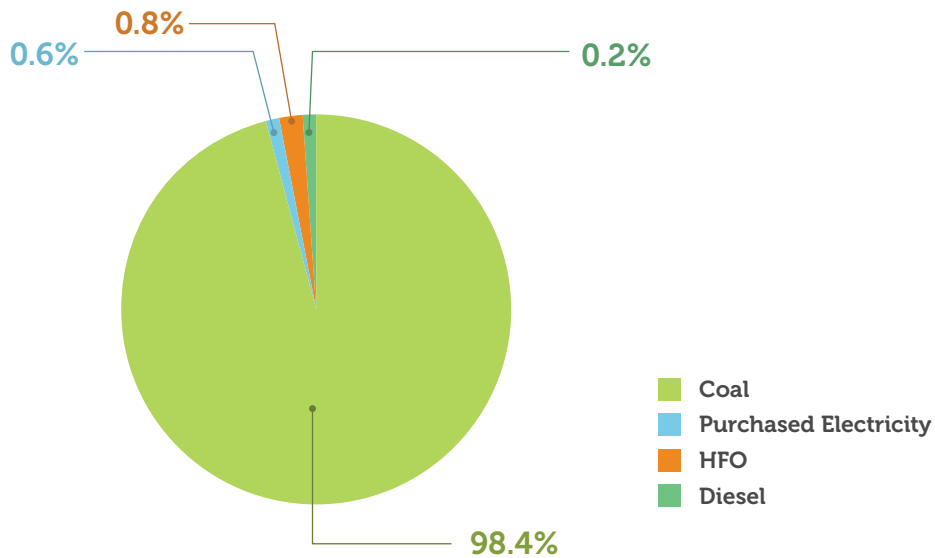
## CLIMATE RESILIENCE

The physical impacts of climate change are emerging at an unprecedented pace around the world. While natural calamities such as floods, cyclones and landslides increase our risk of operational disruptions, they also pose threat to the life and property of local communities. Our business units work closely with nearby communities and administrative institutions to support in developing climate resilient livelihood initiatives.

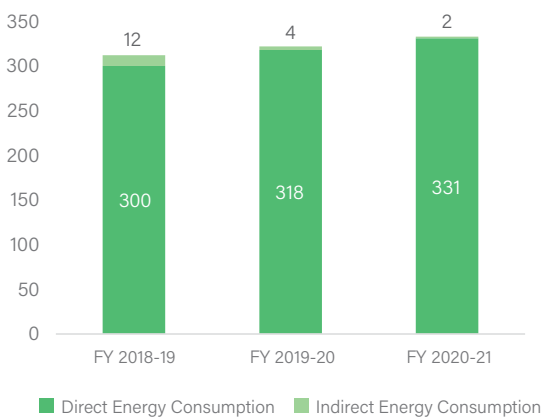
We periodically assess the exposure of our assets to the extreme climate events and consistently improve the resilience of our climate adaptation measures against these natural disasters.

## ENERGY CONSUMPTION

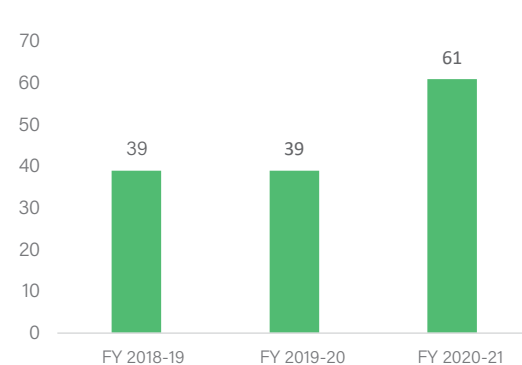
Vedanta Aluminium meets the majority of its energy requirements from its coal-fired captive power plants. In this reporting period, we have undertaken several energy conservation initiatives. These include cathode upgradation, power plant specific coal consumption reduction, Specific Auxiliary Power reduction, and process optimisation in smelting operations. The combined effect of these projects has resulted in annual savings of around 1.4 million GJ. Our top 10 energy conservation initiatives are mentioned below:



Energy Consumption (Million GJ) for Aluminium Business



Energy Consumption (Million GJ) for Independent Power Plants





## TOP 10 ENERGY/GHG SAVINGS INITIATIVES

SERIAL NO	BUSINESS UNIT	ASSET	INITIATIVE	ENERGY SAVINGS (GJ)	GHG SAVINGS (TCO2 E)
1	Jharsuguda	Power Plant	Condenser cleaning and air ingress rectification	3,15,427	71,918
2	BALCO	Smelter	100% graphitized of pots installation as planned in the year.	2,84,817	64,939
3	BALCO	Power Plant	Installation of Variable Frequency Drive (VFD) in water pump of power plant	2,20,107	50,185
4	Jharsuguda	Smelter	Addition of pots with 100% graphitized cathode	1,48,268	33,806
5	Jharsuguda	Power Plant	Air preheater, duct, electrostatic precipitators (ESP) and fabric filter leakage arresting work to reduce ID fan loading	1,10,501	25,195
6	BALCO	Power Plant	Installation of second circulating water pump at power plant	91,555	20,875
7	Jharsuguda	Smelter	Reduction of cooling hoses by process optimization	52,154	11,891
8	Jharsuguda	Smelter	Potline voltage reduction 1. Volt drop reduction 2. Operation optimization	36,721	8,373
9	Jharsuguda	Power Plant	Cooling Tower fills replacement	25,146	5,733
10	Jharsuguda	Smelter	Heavy Fuel Oil (HFO) reduction in furnace	23,905	5,450
11	Other GHG/Energy Saving Projects/Initiatives			1,00,783	22,978
<b>Total GHG/Energy Savings due to our climate action initiatives</b>				<b>Energy Savings of 1.4 million GJ</b>	<b>GHG Savings of 0.32 million TCO2e)</b>

# Waste Management

With large natural resources consumption, the metal and mining industry produces a relatively large amount of waste. We recognise that the subject of waste management is of material significance to us and our stakeholders because of the associated health and environmental concerns. Vedanta Sustainability Framework guides our approach towards administration of waste generated from our mining and smelting operations in an eco-friendly manner.

## MANAGEMENT APPROACH

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 ICMM'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.

Waste generated from our operations are classified into hazardous and non-hazardous waste. The high-volume and low-toxicity waste generated from our mining or smelting operations is classified as non-hazardous waste, such as

mine over burdens, mineral slag, bauxite residue, lime grit and ash from coal-based power plants. The management of the high-volume and low-toxic waste streams is a critical task considering the associated high environmental and safety risk exposure to our host communities. We stock these wastes in dedicated Bauxite Residue Storage Area/ ash-dykes, to supply to other industries as raw materials or send them to authorized third parties for recycling, dispose them or incinerate them. The hazardous waste from our operations includes used/spent oil, refractory waste/spent pot lining (SPL), residual sludge from smelters, etc. We dispatch these wastes to authorized third parties for recycling or safe disposal.

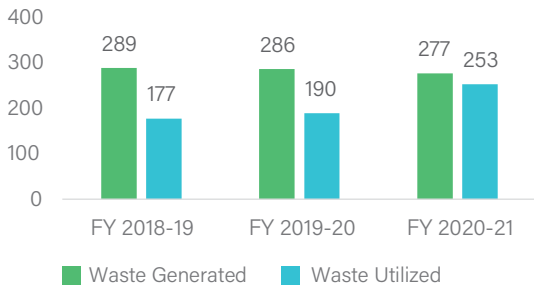
## WASTE MANAGEMENT HIERARCHY



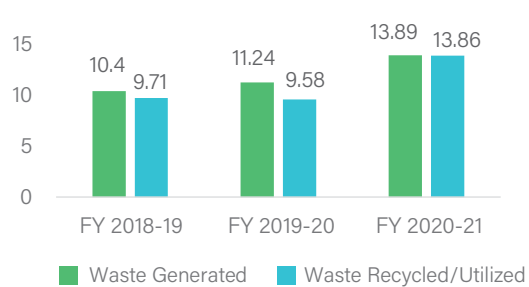
## WASTE MANAGEMENT PERFORMANCE

The graphs below depict the waste generation and recycling trends for the last three reporting periods. For FY 2020-21, our net hazardous waste was around 276.9 thousand metric tonnes, which turns out to be 3.4 percent less than that of the previous reporting period. Besides, our operations produced 13.89 million metric tonnes of high-volume low-toxicity wastes, of which 99.8 percent was utilised.

Hazardous Waste (Thousand MT)



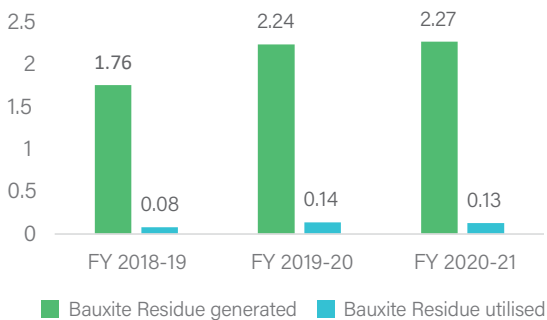
Non-Hazardous Waste (Million MT)



## BAUXITE RESIDUE

Bauxite residue is a low-toxic and high-volume mineral waste with high alkalinity, because of which its handling poses significant risk. For this reporting period, our operations resulted in the production of 2.27 million metric tonnes of bauxite residue, of which 5.7 percent was utilized in cement industry.

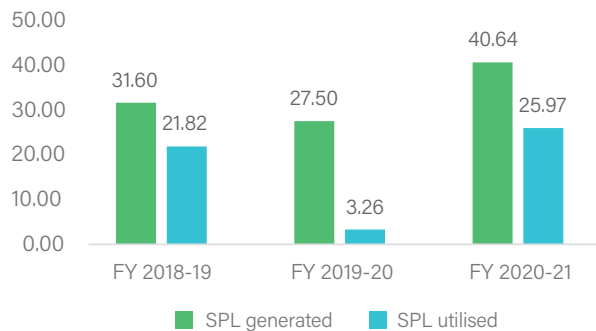
Bauxite Residue generation and utilization (million MT)



## SPENT POT LINING (SPL)

Spent Pot Lining is hazardous waste because of high cyanide and fluoride concentration. In this reporting period, we have generated 40,640 metric tonnes of SPL, of which 25,967 metric tonnes, i.e., 64 percent of total SPL generated, were dispatched to government authorized recyclers.

SPL Generation and Utilization (Thousand MT)

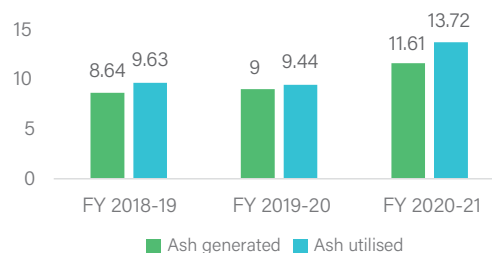


## ASH MANAGEMENT

The disposal of ash, both fly and bottom, has potential environmental and health risks that can materialise due to contamination of local drainage systems and changes in land use patterns. When the ash dries and becomes loose, it can potentially lead to the formation of fugitive dust that can deteriorate air quality of our host communities, if it spreads. To prevent such scenarios from materialising, we have undertaken several initiatives such as development of soil and vegetative cover, frequent sprinkling of water, etc. at our ash management facilities as per our internal standards and local regulations.

In this reporting period, the total ash produced at our thermal power plants, amounted to 11.61 million metric tonnes. We have utilized 118 percent of the generated ash.

Ash Generation and Utilization (Million MT)



Ash utilization is more than ash generation as we are considering legacy ash

## BAUXITE RESIDUE AND ASH MANAGEMENT

Bauxite residue generated at our Alumina Refinery operations and ash generated from our coal-based Power Plants, could pose significant risk exposure due to hazard in terms of potential to create fugitive emissions. Potential breach of their storage area could result in spillage of the waste material deteriorating the environment, and posing a threat to the life and property of nearby human settlements, if any. We recognize the responsibility towards implementation of robust control systems in the safe administration of our Bauxite Residue Disposal Area (BRDA) and ash dykes.

To ensure resilience of these impoundments against catastrophic events, we have employed dry

stacking technology of filtered tailings at our Alumina Refinery in Lanjigarh. In addition, each of our 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.

All of our tailing storage facilities are lined, diminishing the risk of seepage of bottom ash and consequential pollution of local aquifer to negligible. We conduct frequent maintenance and inspections to ensure safety of these tailing storage facilities, in compliance with the company's Tailing Management standards and the legal requirements. Further, we enlist 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 these impoundments.

**We undertake various practises for the safe management of our tailing dams as advised by these experts, such as:**

- Tailing and ash dyke analysis
- Training of our employees
- Internal and external audit of the storage facilities' performance
- Daily/weekly checks



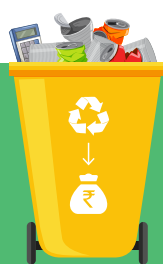
Bauxite Residue Storage Area



# Path to Circular Economy

## WASTE-TO-WEALTH CAMPAIGNS

Over the years, Vedanta Aluminium has augmented its advancements towards closing the material consumption loop. Our commitment towards circular economy commands efforts towards minimising waste-to-landfill and/or incineration. In addition, we have undertaken numerous campaigns that recover and redirect these wastes for producing value-added products in other industries, reducing their primary material consumption.



- 99.8% non-hazardous waste utilised
- 64% Spent Pot Lining supplied to government authorised recyclers
- 118% ash utilised

We have partnered with Runaya, a young start-up working in the field of circular economy, to improve aluminium recovery present in the dross to nearly 90%. By adopting cutting-edge technology and international collaborations, Runaya is able to take the non-metallic portions of the residual dross and process it to produce briquettes that can be used as slag conditioner in the steel industry resulting in zero waste, and therefore zero landfill.

At Vedanta Limited, Lanjigarh, we have recently begun the provision of bauxite residue for cement manufacturing industries. On account of high concentration of iron oxide and alumina, bauxite residue has high potential for usage in the manufacturing of clinkers in cement industries, as a laterite substitute. Moreover, the residual caustic soda in red mud helps in controlling sulphur emission when used directly, making it a better fit for the purpose. Since Feb 2021, we have dispatched over 30,000 metric tonnes of bauxite residue to different cement plants in India.

To manage SPL from Aluminium

Smelters at BALCO and Vedanta Limited, Jharsuguda, we have identified authorized recyclers for detoxification of SPL carbon portion for the purpose of energy recovery in the industrial process, as per the Standard Operating Procedures (SOP) laid down by the Government of India. In a period of two years, this model has become successful, serving the dual purpose of efficient waste management as well as reduction of fossil fuel consumption of other industries. It has allowed us to supply more than 15000 metric tonnes of SPL Carbon Portion generated/stored in the plant premises to authorized recyclers, and assisting energy-intensive operations of various industries to utilize waste from aluminium industry and reduce their consumption of fossil fuels.

Likewise, for the past several years we have been supplying ash to nearby cement plants, as a 'greener' substitute to clinker in cement production. For this reporting period, we have dispatched around 3,07,000 metric tonnes of ash to cement plants. With a 30 – 33% blending ratio, fly ash can help save 270 kg of carbon emissions for every tonne of cement produced.

On another front, we have entered into contracts with third parties for supplying ash produced at our facilities, for brick manufacturing. In FY 2020-21, we have supplied around 3,95,000 metric tonnes of ash resulting from our operations to brick manufacturers. Ash bricks are not only lighter and stronger than traditional clay bricks, but also significantly contribute towards preserving nutrient-rich topsoil from being used as the raw material in manufacturing of bricks.

This amounts to estimated savings of 1.9 metric tonnes of topsoil for every tonne of ash brick manufactured. Besides, ash brick manufacturing is an eco-efficient process, contrary to the energy-intensive process of producing clay bricks in brick kilns that result in substantial GHG emissions. For every tonne of ash bricks manufactured, it is reportedly estimated to be avoiding about 5900 kg of tCO<sub>2</sub>e emissions. (Read more: <https://vedantaaluminium.com/media/press-releases/list/vedanta-aluminium-invites-waste-to-wealth-partnerships-with-cement-industry-for-low-carbon-products/>)



## SPL Detoxification And Utilization As Alternate Fuel

BALCO

**CHALLENGE:** Spent Pot Line (SPL) is a waste generated at both of our smelters in Jharsuguda and BALCO. This waste is hazardous in nature containing fluoride and cyanide. Vedanta Aluminium generates around 40,000 metric tonnes of SPL every year. SPL ends up in captive secured landfills for safe disposal as per Hazardous Waste Management rules. However, the carbon portion in SPL, which accounts for around 50% of the SPL, can be co-processed and utilized in industries such as cement plants, steel plants etc. Towards the manifestation of Vedanta's vision of Zero Waste, we have collaborated with third parties who will co-process the SPL generated at our facilities and provide it to these industries for burning as fuel, as per the guidelines of Central Pollution Control Board (CPCB), Government of India.

**ACTION:** We identified, encouraged, and supported three third parties with the technical know-hows of SPL and its detoxification in accordance with SOP developed by CPCB. The composition analysis of SPL generated from our operations was conducted through a National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory and the analysis reports were used for understanding the nature and chemical composition of SPL. We also assisted the parties with getting permits and necessary approvals for setting up a facility for detoxification as per the requirement of law. Our Environment team then audited these facilities, and the audit report was shared with the parties for needful action. We also advised the transporting agencies to design their vehicles as per the SOP for vehicles carrying hazardous waste. We have also audited vehicles of the parties for environmental compliance as per vehicle driving and safety standards of Vedanta.

After detoxification of SPL, we supply the resultant finished product, termed as Carbon Mineral Fuel, for utilization in various industries.

### OUTCOME:

- Our smelters at Jharsuguda and BALCO were able to dispose more than 15,000 metric tonnes of SPL stored in the plant premises to these authorized recyclers.

### CASE STUDY



# Material Efficiency

## EFFECTIVE MATERIAL HANDLING

The effective and responsible handling of materials is integral to our approach to circular economy. This calls for directing our efforts towards process redesigning and incorporation of modern technological solutions that facilitate reducing the wastage across our supply chain operations. The cumulative effect of these initiatives lowers our demand for valuable natural resources.

At our Alumina Refinery in Lanjigarh, we realised the opportunity for recovering alumina dust that used to get spilled during material transportation from calciner unit to alumina handling unit. We observed that after discharging alumina into the hopper of main distribution box, some alumina dust used to stick to the conveyor. Even after installing a rotating scrapper brush to remove dust from conveyor, alumina dust used to remain on the conveyor. Later, this dust would settle down below rollers and conveyor, and if not removed regularly, the dust would accumulate and hamper the smooth functioning of the conveying system.

During heavy wind, the alumina dust had the potential to disperse in the ambient air, resulting in ambient air pollution. After serious deliberation on the challenge, we decided to install a portable industrial vacuum machine. This machine has a storage bin and flexible hose to clean the area below the conveyor and walkways of the conveyor gallery. Once the storage bin is filled, the operator unloads it into the hopper and repeats the process until all spilled alumina is completely recovered. Along with improving our alumina handling efficiency, this innovative solution also helped reduce chances of fugitive emission from the plant.

We identified another such opportunity at our Aluminium Smelter in

Jharsuguda. The smelting process of consumes aluminium fluoride (AlF<sub>3</sub>) and releases Hydrogen Fluoride (HF) gas, as a part of stack and fugitive emission. To control such HF emissions, we modified the tap doors of the electrolytic pots in such a way that they would use the magnetic field of the potlines for tight seal and suction of fluoride containing fumes. Additionally, we also modified the AlF<sub>3</sub> charging hopper for improved effective mixing of Low Bulk Density (LBD) and High Bulk Density (HBD) AlF<sub>3</sub>. As a result, we saw a reduction of HF in the fugitive emission from 0.39 mg/Nm<sup>3</sup> to 0.15 mg/Nm<sup>3</sup>. It also helped improve alumina enrichment from 1.72% to 1.85%, consequentially resulting in reduction of specific AlF<sub>3</sub> consumption of the smelter.

At Vedanta Limited, Lanjigarh, we use crushed lime as a raw material. Crushed lime arrives in different sizes ranging from 10 mm to 80 mm and is crushed in the hammer mills to reduce its size to less than 5 mm. During this process, powder less than 1 mm size is also generated which, being micro fine, is prone to causing fugitive dust, since the system of lifting the material is manual in nature. To avoid this, we have recently revamped and commissioned a vacuum cleaning system at the unit. The industrial vacuum cleaning machine is self-contained in all aspects and is suitable for suctioning free flowing material either directly into the machine

container or through a centralized pipeline system. When vacuum is developed in the Centralized Pipeline System, the operator connects the suction hoses along with the cleaning tool to the suction outlet valve one at a time, and sucks dust to the cyclone, where a majority of the material is separated and discharged into storage hopper. Air with little dust is filtered through the filter hopper, and clean air is exhausted to the atmosphere after passing through the machine filter system and vacuum pump. This system, operated under closed condition with centralized piping system connected to different floors of the area, gives a two-fold result. Firstly, it minimizes loss of lime powder in the process, and secondly, it eliminates manual cleaning and lowers the possibility of dusting.







Employees assessing Rolled Product inventory

## ENERGY STEWARDSHIP

As part of our commitment towards reducing our environmental impact, we take the responsibility of improving energy productivity of our metal processing operations very seriously. We are committed in our endeavours towards continuous strengthening of the modus operandi of these operations with the objective of reducing their energy requirements.

After observing high Specific Steam Consumption in one of the turbines of our Captive Power Plant at Lanjigarh, we decided to overhaul the turbine. It resulted in estimated annual energy savings of 1.66 million units, and annual

reduction in coal demand by around 22.8 kilo metric tonnes.

As part of another ambitious campaign, we have undertaken mass adoption of eco-efficient lighting systems at our Lanjigarh plant. During the reporting period, around 522 conventional lighting systems at the refinery and power plant were replaced with LED lights. This amounted to electrical energy saving of approx. 31,800 kWh. Additionally, we also undertook the upgradation of our energy-intensive pump systems. The specifics of this upgradation are presented below.



Machine	Operating hours at all our operations	Energy Savings
Drinking Water Pump	12-16	12 kWh/hour
Lime Transfer Pump	24	12 kWh/hour

# Water Management

Water is a precious natural resource. The availability of clean and sufficient water is a prerequisite for the survival of our host communities and ecological integrity of the surrounding areas. Since our smelting and mining operations demand unconstrained supply of water, we recognize the necessity of a robust water management system that secures our business as well as the requirements of our stakeholders.

## MANAGEMENT APPROACH

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.

Our approach towards this material issue involves considering water

requirements as part of our business decision-making process. Water footprint is a key determinant that will influence the investment-friendliness of our future projects. Each one of our business units has undertaken water-screening assessment to identify sensitive aquatic habitats, water availability and our dependence on shared water sources.

These assessments assist us in anticipating and evaluating the degree of potential environmental and social risks related to water. Consequently, we develop and implement customised water risk management plans for each of our locations. We have used World

Resource Institute (WRI) Aqueduct Tool for the purpose of our assessment.

With the outcomes of this assessment, we learnt that our Lanjigarh operations are located in a high water-stressed area as per WRI's Water Risk Atlas. In response, we have undertaken several mitigation measures at the plant, mainly focused towards improving water efficiency of our operations, and recycling and reutilising as much water as possible, with strict adherence to the policy of zero discharge. We have improved access to intake well for improved water availability throughout the year with the help of Department of Water Resources, Government of



Water reservoir near power plant

Odisha. Moreover, we have constructed large storage/recirculating water reservoirs to collect effluent as well as accommodate points of unexpected inflows into the process cycle, particularly during monsoons. We have

ensured that nil or limited water inflow, only for make-up, is allowed to enter into the process.

Further, over the last few years, our facilities have been increasingly

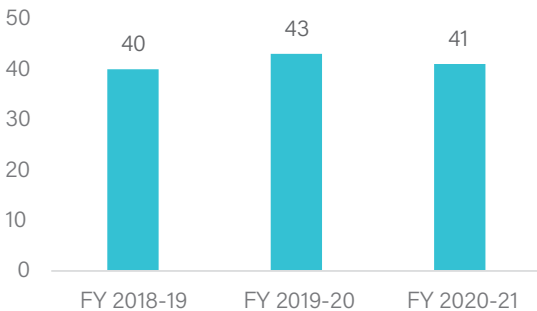
exposed to heavy rainfall and cyclones. Our BALCO and Jharsuguda sites have conducted comprehensive flood studies and have developed mitigation and emergency response plans to counter future extreme rainfall events.

## WATER PERFORMANCE

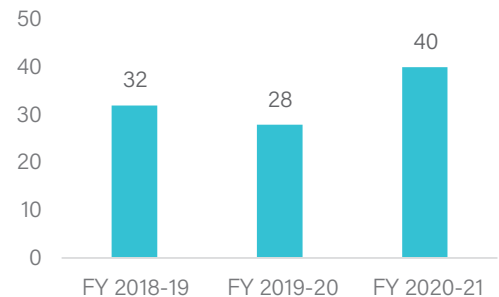
The following pictograms depict the fresh-water consumption and share of recycled/reutilised water of the operating portfolio of our Aluminium Business and two Independent Thermal Power Plants (IPP).

### Fresh Water Consumption

Fresh Water Consumption at Aluminium Business (Million m<sup>3</sup>)



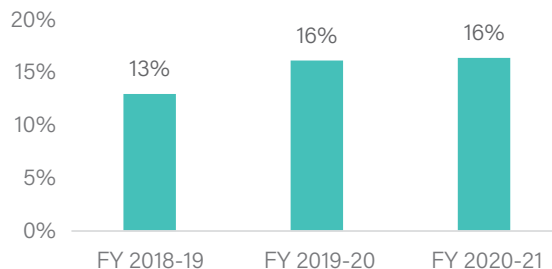
Fresh Water Consumption at IPPs (Million m<sup>3</sup>)



### Total Water Recycled at Aluminium Sector



Water Recycled



We are committed to zero effluent discharge. Like previous year, there have not been any water-related incidents at our sites. There was no incident of operational disruption caused by water unavailability either.

## MANAGING OUR WATER FOOTPRINT

We strive towards adoption of affordable solutions that manifest our vision of water stewardship. Our water conservation initiatives are directed towards optimising water consumption across our operations and increasing our share of recycled and reused water. Our Water Management Standard, that imbibes the spirit of ICMM's statement on Water Stewardship, commands structured tracking and monitoring of local water availability, along with estimation of future changes. We continue to monitor existing and future regulatory changes at both national and local levels.



### The key focus areas of our water saving campaigns are mentioned below:

- Improving fresh-water consumption through maximizing the consumption of recycled water from Effluent Treatment Plant (ETP)
- Revamping water treatment softeners to improve the output water harness
- Online monitoring of water parameters
- Monitoring and control of main process water pipe valves through SCADA system.

- Frequent water leak audits and their corrections

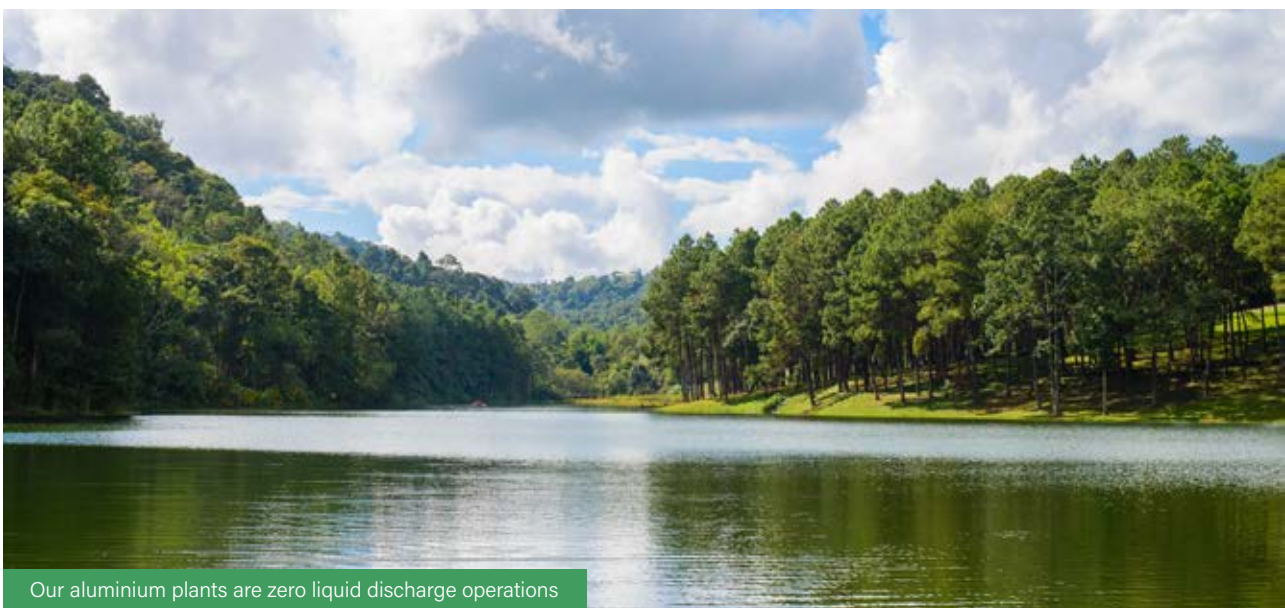
Water being a shared resource, we collaborate closely with our stakeholders, mainly local communities, and regulatory bodies to ascertain their expectations and anticipate future water-related issues, if any, and associated business implications. We involve their participation in company-sponsored integrated water management initiatives. Working in this direction, we have designed our community development (CSR) initiatives in line with our shared vision towards sustainable development. We have been actively supporting local administrations in providing safe

drinking water and sanitation to the villages around our Jharsuguda and Lanjigarh plants. We also promote and provide the necessary support towards adoption of sustainable agricultural practises in the neighbouring communities of all our plants. These programs come with the two-fold benefit of helping local communities develop technical knowledge of water management, while nurturing our relationship with our stakeholders.

- Zero water-related incidents
- 16% water recycled

## TOP 10 WATER SAVING PROJECTS

Serial No.	Business Unit	Asset	Initiative	Savings
1	Jharsuguda	Thermal Power Plant	Utilisation of recycled water in Ash Handling Plant	2,73,225
2	BALCO	Thermal Power Plant	Clarified blowdown water recycling	2,27,500
3	Jharsuguda	Smelter	Operation efficiency improvement of utility cooling tower	46,302
4	Jharsuguda	Thermal Power Plant	Arrest of the leakage in fibre filter inlet line of Water Treatment Plant	23,000
5	BALCO	Thermal Power Plant	Arrest of water pipe leakage	22,920
6	BALCO	Thermal Power Plant	Utilization of Cooling Tower blowdown in Fire Water	18,870
7	BALCO	Thermal Power Plant	Minimization of blowdown by maintaining water chemistry	17,420
8	Jharsuguda	Smelter	Installation of float valves in water tank	13,713
9	Jharsuguda	Thermal Power Plant	Commissioning and operation of new 500 m3/hr Zero Effluent Discharge in Water Treatment Plant	13,059
10	Lanjigarh	Refinery	Modification of sprinkler header to utilise the rainwater	12,240
11	Other water saving projects/initiatives			43,027
Total Water Savings due to our Water Stewardship Campaigns				7,11,276 m3



Our aluminium plants are zero liquid discharge operations

# Air Quality and Emissions Control

Access to quality air is fundamental to healthy life. We recognize that our business operations have the potential to impact air quality through emissions in various forms, and it is our responsibility to install adequate control systems to manage these emissions, as part of our sustainability commitment.

## MANAGEMENT APPROACH

We administer a variety of initiatives to manage and minimise the emissions resulting from our business activities. These initiatives are directed at making our processes more efficient through innovation and/or deployment of cleaner technologies. The stacks of our thermal power plants are fitted with Hybrid Electrostatic Precipitators (ESP) and bag filters to minimize particulate matter emissions. Our aluminium smelters are fitted with high-capacity Fume Treatment Plants (FTP) to mitigate fluoride emissions. In order to mitigate other fugitive

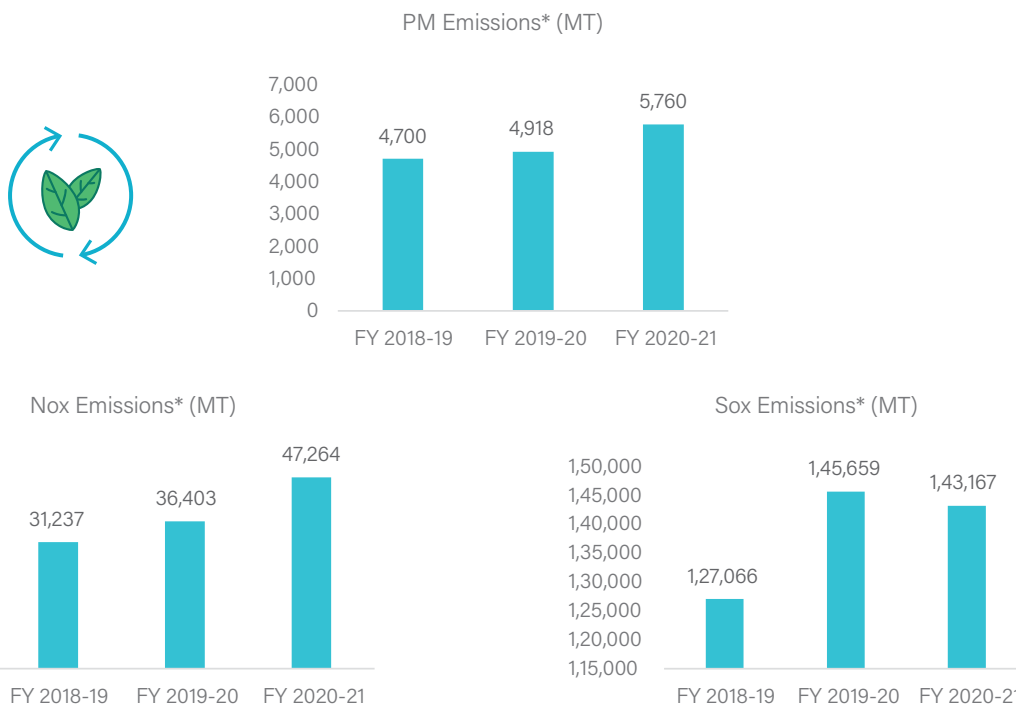
emissions, we have undertaken several interventions at the sources of origin.

Our air quality control programs ensure abidance with the pollutant dispersion standards and norms laid down by both local and national regulatory agencies. As per the Government of India's latest emission control guidelines, our coal-fired thermal power plants are required to install Flue-Gas Desulphurization (FGD) systems to curb the SO<sub>2</sub> emissions in coming years, and we are evaluating

ways and means for compliance with regulatory requirements.

As part of our ambient air quality surveillance process, we monitor Suspended Particulate Matter (SPM), SO<sub>2</sub> and NO<sub>x</sub> at all of our business units. Fluoride emissions and Polyaromatic Hydrocarbons (PAHs) emissions are monitored for our aluminium processing operations, while Particulate Matter (PM), Sulphur Dioxide (SO<sub>2</sub>) and Oxides of Nitrogen (NO<sub>x</sub>) emissions are examined for our thermal power plants.

The air emissions for this reporting period are depicted below:



\*Emissions from BALCO not included



# Biodiversity Management

We understand that the conservation of biodiversity is a material area for the Metal and Mining industry. Improper management at the operations may pose a potential risk to the environment and in turn result in the loss of biodiversity. As a part of our vision of Zero Harm, we are committed to protecting the biodiversity of the areas in which we operate.



The greenery around our power plants

## MANAGEMENT APPROACH

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.

In addition to this, we follow the globally recognized approach to help mitigate the impacts on biodiversity as far as possible. We have conducted the environment and social impact assessments at all sites for any new project or expansion of existing operations, which help us understand

the critical areas of biodiversity near our operations and any associated risk. All our operations have developed Biodiversity Management Plans (BMP) pertaining to the requirements of their respective sites. We continuously work towards achieving 'No Net Loss' of biodiversity at all places in which we operate.



## LAND REHABILITATION AND RECLAMATION

We take various initiatives to rehabilitate and reclaim the land within and around our operations. At all three of our operating sites (Korba, Jharsuguda and Lanjigarh), we are working on conserving biodiversity. We carry out reclamation of the low-lying areas, both inside and in our surroundings, as well as of abandoned quarries with ash generated from our operations. This process helps us in responding to two of our material concerns – biodiversity management and waste management.

Along with this, we have three operating mines in the Sector - Bodai Daldali bauxite mines, Mainpat bauxite mines and Chotia coal mines. To rehabilitate the mined-out area of our Chotia coal mine, we are back-filling it with ash generated at our operations. We use concurrent back-filling techniques to reclaim the mined-out areas of our bauxite mines, which not only helps us in conserving the topsoil of the land, but also utilizing the high-volume low toxicity waste generated at our operations. Post this, we plant saplings of local species as a part of the progressive rehabilitation.

We have also developed various water recharging structures for protection and conservation of the biodiversity at the mined-out areas. For recharging ground water, we have constructed eight water reservoirs at our bauxite mines which are helping nurture fauna. Migratory birds have been seen near the water reservoirs at Mainpat bauxite mines. To avoid the risk of surface run-off especially during monsoons, we have built garland drains and check-dams along the periphery of the mines, as well as diversion drains ahead of the mine face. For conservation of natural habitat and biodiversity of the area, we have planted more than 2.5 million saplings of local species over a period of time. As a result of these initiatives, several bird species, mammals, reptiles, amphibians and even butterflies have been seen at our mining area. Our approach towards biodiversity conservation is not only helping in retaining, but also improving the biodiversity of the area.

Furthermore, we have engaged our local stakeholders in each of the activities related to biodiversity

conservation, be it carrying out plantation drives, construction and maintenance of water ponds/reservoirs and check-dams. Our mining activity has no significant impact on the landform, and we conduct the process of rehabilitation in alignment with our mine closure plan. At our mines, out of the total 1108 Ha of land disturbed as part of the mining activity, 1027 Ha has been rehabilitated with a total green belt of 855 Ha.

Living near our mining operations, are tribal populations who are mainly dependent on agriculture and forests for their livelihood. Due to our community development initiatives, their livelihood and education levels have enhanced significantly. There is a visible increase in the literacy rate in the core zone of mining area. All of these have resulted in improved quality of life of these people, which can be seen in the quality of their settlements, infrastructure facilities, demography, and other socio-economic aspects.



**We have rehabilitated 93% of the total land disturbed due to our mining operations and will rehabilitate 100% of the disturbed land at the end of our operations.**





# Our People



# Safety and Occupational Health

## SAFETY

Towards our vision of becoming a Zero Harm operation, ensuring the safety of our people is most important to us. We believe in fostering a 'Culture of Care' and recognize that dedicated efforts are required to ensure that every employee and business partner working at our operations returns home safely.

## MANAGEMENT APPROACH

We understand that management of Safety and Occupational Health of our employees and contractors is a material issue across our operations. We regularly work towards identifying and responding to any safety-related risk that our operations face, guided by VSF in achieving the vision of Zero Harm.

We are aware of the importance of building a strong safety culture throughout our business, to prevent any safety related work incidents. Working towards the same, we strive to drive greater cognizance of behavioural safety at our operations through regular training of our workforce in safe working practices, on-ground engagement of the senior leadership with employees and business partners under our Visible Felt Leadership programme, and a zero-tolerance policy towards any lapse in adherence to the cardinal rules of safety. We encourage our workforce to proactively identify any unsafe condition or unsafe activities at our operations and report these to our HSE leadership, who then work towards addressing the issue. This year, we initiated a campaign to 'Review Safety Practices Through Fresh Eyes', in which we invited our new recruits and young employees to observe all activities through a fresh perspective and report any area(s) of concern according to them. All of their inputs/

insights/findings were reported to the HSE leadership, who then investigated them and undertook appropriate actions to address them.

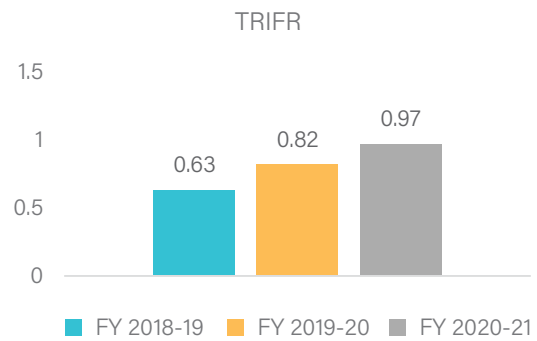
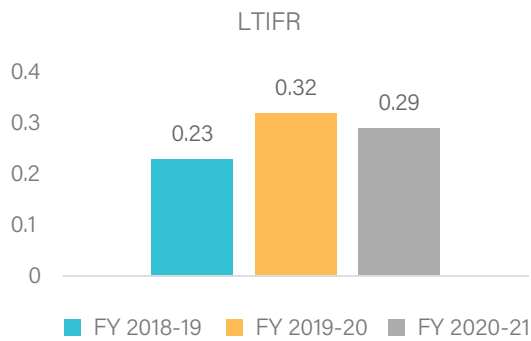
We have a proactive approach towards identifying high potential incidents i.e., anything that may cause workplace health and safety incident. We thoroughly investigate these high potential incidents by cross-functional teams. Our senior management reviews all corrective and preventive actions of all incidents and ensures that all action items are implemented on ground. Together with our ongoing efforts to heighten each person's safety awareness, this approach helps us in minimizing the chances of safety related risks materializing into actual incidents.

## OUR SAFETY PERFORMANCE

This year, we lost two precious lives at our operations. The first was at our Alumina Refinery operations, during unloading of bauxite, and the second was at our Power Plant in BALCO. We investigated the incidents thoroughly, conducted root cause analysis, identified gaps in the system, and based on the findings, defined corrective actions along with mapping of responsibilities, which were reviewed by our senior management. We have

also shared the learnings and corrective actions from the incidents with our sister companies.

During FY 2020-21, we have reported 103 high potential incidents, 19 Lost Time Injuries (LTI) and 63 total recordable injuries. Our Lost Time Injury Frequency Rate (LTIFR) was 0.29 and Total Recordable Injury Frequency Rate (TRIFR) was 0.97. The increase in our TRIFR number follows an improvement in reporting across our operations. While the onus of ensuring safety is on every person working at our operations, safety leadership is an important pillar in driving our zero-harm vision. Our leadership frequently engages with employees and business partners through various platforms such as Townhalls, Safety Stand Down meetings, Toolbox Talks, etc. to reinforce awareness and sense of responsibility of each person towards building a culture of safety. We conduct regular trainings and workshops for our people in order to enhance their safety competencies. We have also conducted various programmes for identifying and managing high hazard areas to prevent potential safety incidents. One of the programmes was a pilot on our Critical Control Management.



### CRITICAL CONTROL MANAGEMENT PILOT

For a robust safety culture to prevail, it is imperative that the right engineering controls are in place. Ensuring the on-ground effectiveness of these engineering controls is as important as implementing them. Keeping this in mind, we conducted a pilot at our operations to help us manage the Critical Safety Risks in a better manner in-line with ICMM's guide on Health and Safety Critical Control Management.

Under this programme, we revisited the Material Unwanted Events at our operations over the past ten years. After multiple workshops with our internal

stakeholders and thorough analyses, we chose the top seven risks which were found to be most prevalent at our operations for the pilot. Nearly 80% of the incidents which occurred in the past ten years at our operations were pertaining to these top seven risks.

For each critical risk, several controls were in place. To select the critical controls out of these, we followed the ICMM methodology of critical control decision tree. We listed the critical controls against each risk and prepared audit check-sheets based on the identified and on-ground controls.

Our leadership is engaged in verifying the on-ground effectiveness of the critical controls that have been implemented to prevent these risks. We ensure that we attend to any gaps or observations within the timeline to restore the effectiveness of the critical controls on ground. Seeing the success of the pilot, we plan to expand this project or implement critical control to all of our high-risk areas going forward.

**All our sites are ISO 45001 certified**



Safety talks at shop floor



## SAFETY BOOSTER: VEDANTA LIMITED, JHARSUGUDA

### JHARSUGUDA

**CHALLENGE:** The safety culture of an organization cannot be created or changed overnight; it develops over time as a result of dedicated efforts towards making safety systems and practices, individual and organizational behaviour, and management practices more robust. With this thought, we rolled out the Safety Booster program at Vedanta Limited, Jharsuguda, to change the shop floor safety culture from reactive to generative.

**ACTION:** Under the program, respective Area Heads, SBU Heads and Plant Heads nominated employees from their teams who have historically displayed inconsistent safety behaviour. The training module of the Safety Booster programme was developed included basic safety knowledge for refreshing knowledge of safety overview, acceptance of deviation in various fields and tools used to correct such behaviour like Make Better Risk Decisions (MBRD), Behaviour Based Safety (BBS), Risk Assessment, Culture of Care, etc. Accordingly, trainings were imparted to the nominated employees.

The effectiveness of the training was analysed and monitored through a 9-step framework including: Pre-assessment, Psychometric Questioner, Employee Counselling Sheet, Self-Declaration, Peer to Peer Engagement, Post Assessment, Training Feedback, Manager Feedback on change in behaviour, and Safety Prescription Report.

**OUTCOME:** In FY 2020-21, 15 batches of safety booster programme were conducted, and more than 250 employees were covered under the program. Post-training, according to the feedback from their managers, the behavioural safety quotient of the employees who underwent the training had significantly improved.

### CASE STUDY





## DRIVER MANAGEMENT CENTER: VEDANTA LIMITED, JHARSUGUDA

### JHARSUGUDA

**CHALLENGE:** The risks related with vehicle and driving are one of the top critical risks at our operations. To control and minimize these risks, Vedanta Limited, Jharsuguda has developed a Driver Management Centre (DMC). It is a special training/coaching module which has been prepared keeping in mind and driving the need for an accident-free operation.

**ACTION:** The key objective of DMC is to improve the performance of the individual by inculcating right behaviour and improving their skills and safety competencies to ensure compliance to vehicle and driving standards. It focuses on aligning our business partners and their employees (contractors, transporters, drivers etc.) to our safety expectations, and collaboratively working on a continuous basis to raise their performance levels through measurement and monitoring their performance before and after every trip. We have also put in place a Help Desk, as a part of the DMC, for proper Road Safety Assistance. This Centre provides the following services:

- Defensive driving, fatigue management, and journey risk management training
- Quarterly vehicle inspection of technological vehicle and fleet
- Mystery follow-up
- Accident investigation
- Road signage and blind spot survey
- Behavior based counselling
- Parking area assessment
- Heavy Vehicle/Light Motor Vehicle (LMV) checks
- Road safety awareness campaign
- Behind the wheel assessment

**OUTCOME:** Post introduction of DMC, we have observed improved fleet safety, better fleet efficiency and driver accountability, real-time response, good drivers' retention, reduced incidents/accidents, with awards and recognition of fleet truckers who have displayed appropriate safety behaviour.

### CASE STUDY



## Health & Well-being

We are aware of the fact that our operations have the potential to pose health hazards. We continuously strive to eliminate our people's exposure to any of these health hazards.

### MANAGEMENT APPROACH

To minimize Occupational Health related risks posed to our people, we have implemented health management systems at all our operations. We have adopted the hierarchy of control in mitigating these risks. We invest in technology, systems and advanced processes and carry out regular monitoring and maintenance of the systems to ensure their effectiveness. Along with this, we provide Personal Protective Equipment (PPE) to each employee

and contract worker as per the nature of their job, and ensure their compliance to the same. We also conduct various programmes, workshops, trainings, and site visits regularly to reinforce awareness and sensitization towards Occupational Health related issues and importance of managing the same, across our workforce.



Medical facility for employees & families at our township





## COVID-19 MANAGEMENT: VEDANTA LIMITED, JHARSUGUDA

### JHARSUGUDA

**CHALLENGE:** To ensure the health and well-being of employees, business partners and their family members, while maintaining business continuity, our HSE team at Jharsuguda adopted a proactive approach to fight the COVID-19 pandemic.

**ACTION:** Since the outbreak of COVID-19, we have deployed various measures to ensure business continuity while safeguarding our workforce and their families. Our site HSE teams were continuously involved in ensuring that all areas of the plant were frequently sanitized, social distancing was maintained and all personal safety measures were undertaken by everyone at the shop floors. We made avenues to work from the safety of their homes, and deployed virtual collaboration tools to ensure seamless connectivity between teams.

Numerous initiatives were undertaken to prevent the spread of COVID-19 at our workplace, such as:

- Thermal screening of all employees and partners at the entry gates, and random thermal screening within different departments.
- Dedicated medical staff at entry gates for screening of symptomatic cases of associate partners and logistics partners.
- 24x7 COVID Help Desk, e-consultation and telemedicine services were available 24 X 7, for employees and family members.
- Frequent sanitization of plant areas, common areas, offices, transport vehicles, etc.
- Thousands of masks were procured and distributed among the workforce
- Deployment of CCTV cameras and security patrols to ensure 6 feet of social distancing at the plant and unfailing adhere to PPE compliance
- Web applications for vehicles and personnel to book entry slots at the plant gates to eliminate over-crowding and long waiting periods.
- Extensive awareness on COVID Appropriate Behaviour through all available communication channels
- No-touch handwashing stations, such as motion-senor wash basins and foot-operated portable washing stations for usage by the workforce.
- Packed meals were served to the workforce, and seating space in the canteens and mess halls were reduced to ensure distancing
- A 100 bedded COVID Care Centre with dedicated medical staff and quarantine facilities were developed inside the plant to provide proper care and treatment to those affected
- Corporate tie-ups with multi-specialty and COVID hospitals for referring critical cases
- Sufficient medicines, PPEs and consumables were procured for our hospital and first-aid centres at Jharsuguda

**OUTCOME:** We were able to successfully manage the disease with zero post-COVID complication cases, 14% positive rate and 99.5% recovery rate. More than 400 people were treated and recovered at our COVID Care Centre, with the referral rate being 0.3% of the total treated cases displayed appropriate safety behaviour.

### CASE STUDY



# Human Rights

Every human being is equally entitled to the basic rights for a respectable and fulfilling livelihood. Upholding our core values of integrity and respect, we recognize our responsibility towards ensuring human rights of the stakeholders across our value chain.

## MANAGEMENT APPROACH

We are committed to the protection of human rights of our host communities, employees and business partner employees and other people in our circle of influence. In this direction, our Human Rights Policy completely supports and fulfils the requirements of United Nations' guiding principles on Business and Human Rights, along with the statutory requirements. The spirit and guidelines of our Human Rights Policy are duly upheld in our business undertakings. Administration of our human rights commitments across our value chain continues to be a subject of importance for our stakeholders. We strive towards ensuring strict adherence to these commitments at our facilities as well as those of our business partners.



Young employees being groomed by seasoned professionals

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.

Child and forced labour, sexual and other forms of harassment, and discrimination on the grounds of gender, race, ethnicity, or other factors, are strictly prohibited. We encourage the reporting of such incidents through established channels. Post

thorough internal investigation of these complaints, we take appropriate disciplinary actions.

Our sites undertake HSE and social risk assessment to evaluate the exposure to human rights related risks. Over the years, we have developed and implemented numerous initiatives in this direction, for true realization of our vision of zero harm.



Employees at Potline operations, Jharsuguda plant

## LABOUR RELATIONS

At Vedanta, we pay equal respect towards the human rights of our regular employees and our indirect workforce. We have implemented dedicated controls such as grievance redressal mechanism and labour management cells at all of our facilities for the redressal of any complaint/issue raised by the workforce. Moreover, we uphold the right to freedom of association enforced by collective bargaining agreements. These contracts comprise mutually agreed upon terms between management and union representatives on remuneration, allowance, and incentives, working conditions, health and safety, and other matters of material significance to the workforce. In the financial year 2020-21, 17 percent of our regular employees and 33 percent of business partners were covered under collective bargaining agreements.

## SUPPLIER DILIGENCE

As a global leader in the aluminium industry, we are cognizant of the potential existence of human rights impacts across our supply chain. We insist our suppliers and vendors to

adopt adequate controls to safeguard their operations against identified human rights related vulnerabilities. Our Supplier Code of Conduct is an integral component of our supplier contracts. In addition, our Supplier and Contractor Sustainability Management Policy sets the conventions for human rights conduct across the supply chain. The Supplier and Contractor Technical Standard, further, includes a Supplier Screening Checklist to evaluate contractor compliance relating to key HSE, legal and human rights issues. We endeavour to improve adherence to these internal and external obligations through rigorous inductions, screenings, inspections, and audits.

## LOCAL COMMUNITIES

Given the nature of our industry, our operations are set up in geographically and culturally diverse locations. Our core values guide our approach towards the management of our operations in a manner that secures our social license to operate in these regions.

Our approach to community consultation starts with identification of local communities and their residents who might be impacted by

our projects. Post that, we develop a broad stakeholder engagement plan. As per the plan, we undertake various interactions with these stakeholders, with the objective of disclosure of project-related information and identification of their areas of interest. We encourage them to express their concerns related to environmental, social, cultural, and economic risks of our activities. After scientific evaluation of the project risks and determination of mitigation measures, we establish agreements based on mutually accorded terms. Finally, we undertake the project with due consideration of the concerns of the local public regarding project management. In case we receive any project-related complaints, we strive to resolve them timely via established channels. As required by the agreements, we disclose the status of these grievances and other key information to the affected communities.

- **Land Acquisition and Resettlement**

Our screening process for the risks related to our environment and social impact assessment, thoroughly undertakes scientific evaluation of

the impacts of land acquisition and rehabilitation on the affected people. At Vedanta Aluminium, Rehabilitation and Resettlement (R&R) comprises three stages i.e., land acquisition, R&R housing (colony) construction, and R&R entitlements and implementation. However, we recognize that there remains substantial challenge to ensure proper resettlement and rehabilitation for each one of the displaced families.

Vedanta's Land Acquisition and Resettlement Standard stresses minimal acquisition of accommodated land, and building and providing resettlement facility that is better than the existing one. It requires public consultations for estimation of the ramifications on the affected people, and determination of fair reward for the acquisition of property and loss of livelihood, if any. We formulate these rewards in complete adherence to regulatory requirements, and publicly disseminate them along with the eligibility criteria. Besides, the standard mandates development and regular monitoring of Resettlement and Livelihood Restoration Plans. It also requires redressal of complaints raised by the displaced people through dedicated grievance mechanisms and providing them essential support in rebuilding their lives.

- **Rights of Indigenous Peoples and Vulnerable Tribal**

At Vedanta, we are always conscious of the fact that the remote locations where we operate, are often inhabited by Indigenous People (IPs) and Vulnerable Tribal Groups (VTGs). These groups have close ethnic and economic affinity with their local environment. It is our moral obligation to appreciate and preserve the cultural heritage of IPs and VTGs.

Vedanta has developed Cultural Heritage, Land & Resettlement Management, and Indigenous People & Vulnerable Tribal Groups Standards, based on various international conventions, including ICMM 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.

**The Company level IPs / VTGS Standard requires us to:**

- Adopt legitimate mechanism to identify IPs/VTGs and their special rights under the law
- Understand the socio-cultural practises, political structures, and other factors of special interest to these vulnerable sections
- Provide special training to employees involved in dealing with matters concerning IP/VTGs
- Engage and consult with IPs/VTGs in a culturally appropriate manner. These engagements should take place at locations of public gathering so as to secure maximum participation. The community should have access to relevant information on environmental and social impacts and proposed mitigation plans without any manipulation of facts. The project team should ensure necessary legal and technical support to IPs/VTGs to inform them of their civil rights.
- Seek free prior and informed consent as part of Good Faith Negotiations (GFNs). GFNs seek permission from the vulnerable groups for undertaking activities

that impact them, along with the mitigation and development programs to address those impacts

- Avoid adverse impacts of the project on the IPs/VTGs and when avoidance is unfeasible, to minimize those impacts.
- Provide them access to functional grievance redressal mechanisms to raise their concerns and seek remedy or clarifications.
- Administer livelihood enhancement projects that have sustainable welfare agenda as part of impact mitigation obligations.
- Periodic internal and external reporting of the impact management activities.
- Periodic audits of project impacts, resettlement and impact management activities, and compliance with the terms of agreement with the communities.

**29% of total workforce covered under collective bargaining agreements**

## SNAPSHOT OF HUMAN RIGHTS TRAINING

Business Unit	Number of new hires who have received training	Number of employees who have received refresher training	Total number of hours of training imparted	Share of regular employees trained
BALCO	20	935	1910	49%
Jharsuguda	66	3006	6144	100%
Lanjigarh	53	0	212	17%
Sector	139	3941	8266	73%

Security personnel trained in human rights policies or procedures	
Business Unit	Percentage
BALCO	92%
Jharsuguda	100%
Lanjigarh	99%
Sector	97%



Employees at Cast House, Jharsuguda plant

# A Journey Towards People Excellence

Our employees are our most important asset. At Vedanta, we proudly acknowledge the fact that it has been the endeavours of our people that has brought consistently strong business growth for us, along with nurturing decades-long legacy of positively contributing to the development of society and the country.

## OUR APPROACH

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.



## OUR PRIORITIES AND PERFORMANCE

### Right Management in Place (RMIP)

Being the largest aluminium producer of one of the world's fastest growing economies, we aspire to consistently increase the market

share and profitability of our business undertakings. Our employees are thoroughly acquainted, aligned, and committed to our ambition of becoming the aluminium industry leader. This vision demands collective efforts towards efficient utilisation

of our capital resources by over 5650 professionals working across different business functions. This, in turn, makes a strong case for having the Right Management in Place (RMIP) at all of our business units, incorporating best-in-industry practises

## 22% of senior management personnel are employed locally.

to deliver excellent performance. Our leadership encourages regular review of Business and SBU structures and MIP to corroborate the policy of right placement of competent personnel for every job orientation. The RMIP process also ensures that we fill all the critical roles within our structures and carefully examine the identified gaps, keeping in consideration the evolving business needs, before selecting the suitable candidates for filling the vacancies.

### HIRING AND RETENTION OF TALENT

At Vedanta, we strongly believe in hiring, grooming, and retaining the right talent. Retaining trained and talented manpower in the remote areas where we operate has been a material business challenge. Over the years, we have devised several customised programmes for securing the right talent. We periodically monitor the success of these programmes and upgrade them as per the changing business requirements. Moreover, we emphasise inter-business engagements to share and adopt innovative solutions towards employee retention.

**39% of open positions filled by internal candidates**

- **Vedanta Leadership Development Program (VLDP)**

VLDP is our flagship human capital development programme, which aims to build organisational capability by recruiting and grooming talent from premier management and technology institutions of India. It is a highly customised programme, which focuses on grooming some of the country's brightest talent with the objective of transforming them into catalysts for propelling our business to greater heights. The program includes induction sessions, cross-functional projects, significant roles, job rotation, development opportunities and the right mentoring to ensure that these individuals get in-depth knowledge of our operations and recognise their areas of interest for a meaningful and impactful role.

- **Local Employment**

The recruitment policy of Vedanta Aluminium emphasises enlisting the services of local population to the extent possible. We strive to find and train potential candidates from our host communities to drive our business growth. Our community development projects are tailored for training local populace in various trades making them employable at our facilities. Approximately, 60% of our full-time employees and 90% of our business partner employees are locals.

- **Developmental Initiatives for Middle Management**

We have several programmes for securing professional development of our middle management personnel and nurturing them for taking senior management roles in the organization. These initiatives include the management development trainings, coaching and mentoring with leadership, opportunities of participation in leadership meetings, to name a few. Some of our key initiatives in this direction are:

**MDP (Management Development Programs)/Trainings:** This program provides our middle managers the opportunity to be trained by top management institutes in the country such as IIMs.

**ExCo Coaching and Mentoring:** Under this initiative, each ExCo member is given the opportunity of one-to-one training under an internal coach. This interaction takes place at least once in a quarter and the record of these valuable interactions is maintained to track the progress of individual trainees and the overall success of the program.

**V-Connect Program for middle management:** Mentoring Program is one of our highly acclaimed initiatives. As part of this programme, every senior leader is assigned a group of 10 mentees. Monthly interactions are conducted to ensure mentoring of High Potential (Hi-Po) employees as well as reverse mentoring of the mentor.

## EMPLOYEE ENGAGEMENT

Our employees play a pivotal role in ensuring operational and functional excellence of our mining and metal processes. We conduct formal engagement sessions with our employees and business partners regularly for discussions on matters material to them. The agendas of these interactions include annual performance target setting, regular performance evaluation and feedback, career progression discussions, women employee engagement, among others.



- **Communication and Feedback**

We believe effective communication and regular feedback are the prerequisites for professional growth of employees and robustness of organisational productivity. The various channels of internal communication include Chairman's Workshops, town hall meetings, daily leadership update forums, HSE Leadership and Sustainability Steering Committee meetings, site-level risk sub-committees, employee engagement surveys, and the various engagement forums at site.

We have engaged the services of a third-party and launched 360-degree feedback for our ExCo leaders. We are optimistic that this campaign will help to fast-track the development and assessment of our leaders and we aim to extend the coverage of this initiative so as to include all professionals in a gradual manner.

- **V-Perform: One performance system for 'One Vedanta'**

We are aggressively increasing the scope of digitalisation across our operational portfolio. V-Perform is a pan-Vedanta initiative to digitalise the Performance Management System (PMS) and associated processes across all business verticals of Vedanta by incorporating world-class technological solutions. This enables our functions, teams, and individuals to track the progress on periodic intervals, evaluate their efficiency through advanced analytics, and implement proactive decisions towards the achievement of Vedanta's objectives.

- **Surveys and Employee feedback**

In order to monitor the performance of our human capital management processes and gauge the perception of our employees towards the organization's work

culture and code of business conduct, we conduct internal and external surveys.

**78% score in employee engagement**

These assessments allow us to evaluate the degree of success of Human Resource policies and systems, along with the degree of professional satisfaction and trust of the majority of the workforce. We participate in the globally acclaimed Great Place to Work (GPTW) survey that evaluates us on 5 parameters - Credibility, Respect, Fairness, Pride, Camaraderie among our employees - as per their trademark model. According to the results of our annual employee engagement survey for FY 2020-21, we received a score of 78% in employee engagement through active engagement of our permanent employees.



## DIVERSITY AND EQUAL OPPORTUNITY

A diverse workforce holds the capacity of generating and accommodating diverse opinions for well-rounded corporate decision-making and is well-equipped to aid in the development of innovative solutions to complex business problems.

Workplace justice is about providing equal opportunity to everybody in the sector without any discrimination on the grounds of gender, ethnicity, nationality, or any other factor. Diversity is about recognising the existence of these stereotypes, and ensuring workplace practices that discourage such discriminations and provide necessary support for corporate inclusion of employees from these traditionally disadvantaged groups.

## HEALTHY GENDER DIVERSITY RATIO

Traditionally, mining and metal industry has been a male-dominated sector. We recognise women as our minority group. Vedanta is among the few global natural resource companies with a healthy gender diversity ratio across all organisational levels. As an equal opportunity employer and a strong advocate of gender egalitarianism, Vedanta Aluminium aims at employing 30 percent women professionals in different capacities. Currently, we employ 12 percent women professionals, with gender diversity at unit levels being 9 percent at BALCO, 16 percent at Lanjigarh and 13 percent at Jharsuguda.



## INITIATIVES

- Veeras of Vedanta** -This is the Women’s Council at our Lanjigarh facility. It champions diversity and aids management’s decision making towards providing opportunities for individual and professional empowerment of women employees. The council meets once in a quarter to review and address workplace related concerns of women employees, and discuss their opportunities for capability enhancement and taking up new challenges and leadership roles, etc.
- Agnivahini**- At Vedanta Limited, Jharsuguda, our Fire Service has developed an all-women squad of fire fighters called ‘Agnivahini’ to create awareness on and develop capabilities for fire related risk management. Besides working with the Fire Service team on

enhancing the knowledge and skills of employees to mitigate the fire risk on the shop floor, Agnivahini has also been instrumental in nurturing a fire-safety culture in the Jharsuguda community. Members of Agnivahini have conducted fire safety sessions across many villages, and for the students and staff at various schools in the plant’s proximity.

Apart from these two programmes, we conduct several workshops throughout the year to nurture internal talent and their capability development, for the exclusive benefit of our women employees, thereby preparing them to take up higher responsibilities in both lead and support roles.

Gender Diversity in Vedanta Aluminium	
Attribute	Value
Share of women in workforce	12%
Share of women in management positions	14%
Share of women in top management positions i.e., up to 2 levels away from CEO	2%
Share of women in junior management positions	19%
Share of women in revenue-generating management positions	16%
Share of women in STEM-related roles (STEM: Science, Technology, Engineering, Mathematics)	12%

## TALENT MANAGEMENT AND SUCCESSION PLANNING

One of the fundamental responsibilities of our Human Resource function is to maintain a strong talent and succession pipeline within the Sector. This requires extensive training of our employees through deliberate exposure to newer challenges with the ultimate objective of preparing them for taking up higher roles.

We conduct performance assessment at various predefined intervals. As per the SOP, performance appraisal of employees takes into account the progress towards achievement of targets that are defined by reporting managers/functional leaders in consultation with individual employees. There is a portfolio of initiatives which we

use to evaluate the performance of our workforce, such as leadership training, assessment centres, Accelerated Competency Tracking Upgradation Programme (ACT UP), etc. We thoroughly examine the findings of these assessments and create Individual Development Plans, prepared after discussions with the employee, his/her manager, and concerned HR personnel, to give elevated opportunities to high potential employees and assist employees with low ratings.

### Snapshot of key employee development programmes across each of our business units:

EMPLOYEE DEVELOPMENT PROGRAMMES OF VEDANTA ALUMINIUM SECTOR: SITE LEVEL				
Business Unit	Program	Description of Business Benefit	Degree of Business Benefit	Percentage of Full Time Employees that participated in program
BALCO	Quality Circle/ Kaizen	QC and Kaizen trainings help employees deliver projects with significant cost savings	Total cost savings of more than USD 42,000 achieved with 6544 projects	48%
	Train the Trainer	Subject matter experts are coached to impart training to other employees	The training skills of each subject matter expert are enhanced, and they are groomed to become inhouse instructors for training the workforce. This contributes towards cost savings as well as empowering our own employees in their field of expertise.	2.7%
Jharsuguda	Basic/Advanced Pot Operations and Maintenance	Improvement in current efficiency of pots (electrolytic cells)	In Plant 1, current efficiency improved by 1.8% basis in one year	19.3%
	Effective Communication and Presentation Skills	Impactful communication with internal and external stakeholders	Faster and smoother workflows, improved stakeholder management and cross functional deliberations	12.8%
Lanjigarh	Business Process Parameters	Business consumptions and impact of parameters	Process improvement and optimization of specific consumption	15.4%
	Goal Setting and Feedback Workshop	Workshop for Quantitative and Objective Goal Setting and Effective Feedback Conversation	Objective and efficient goal setting and feedback conversation; interpersonal and soft skills development	20.6%

## • Human Capital Analytics

We employ business analytics to track the performance of our talent management systems. This not only assists scientific evaluation of our employee development programmes, but also identifies the scope of improvement in our HR policies and work culture. Currently, we are using HR analytics for monitoring the performance of employees working in

different capacities and assisting them in improving their professional competencies. Besides, we are leveraging advanced analytics to enable accurate and informed decision making in our recruitment processes. Since its adoption, we have observed gradual year-on-year improvement in the retention rate of our new employees.

## • Workforce Snapshot (FY 2020-21)

Business Unit	Full-Time Employees		Contract Employees		Retainers		Total
	Male	Female	Male	Female	Male	Female	
Jharsuguda	2,680	392	7,753	323	1	0	11,149
Lanjigarh	538	103	2,489	147	4	0	3,281
BALCO	1,773	173	5,200	161	1	0	7,308
Total	4,991	668	15,442	631	6	0	21,738

## • Training Inputs (FY 2020-21)

TRAINING HOURS OF VEDANTA ALUMINIUM: SITE LEVEL					
Business Unit	Full-Time Employees		Contract Employees		Total
	Male	Female	Male	Female	
Jharsuguda	92,565	24,303	2,09,442	8,494	3,34,804
Lanjigarh	15,890	3,891	47,060	882	67,723
BALCO	58,080	6,264	28,344		92,688
Total	1,66,535	34,458	2,94,222		4,95,215 Hours

## • Turnover and Attrition Rates

Given the remote locations of our plants, retention of employees has been a significant challenge for us. In FY 2020-21, while our turnover rate was 14.35 percent, the attrition rate was 7.19 percent, against 8.43 percent attrition rate in FY 2019-20. Unit level attrition was 8 percent at Jharsuguda, 6 percent at BALCO and 9 percent at Lanjigarh.

To control attrition among Graduate Engineer Trainees (GETs), retention bonus is awarded after 18 months of engagement with the company. A rigorous induction process is undertaken for GETs before final allocation of departments to control attrition.





Security Team at Jharsuguda plant

## ● Security Training

Robust security mechanisms ensure a trust-driven environment in which employees can freely operate in their respective functions without bothering about workplace safety threats such as violence, theft, arson, vandalism etc. At Vedanta Aluminium, we have built resilient security frameworks at the unit and business level. Our security operating model integrates layered security with the principles of deter, detect, delay, deny and respond to security breaches. This model lays greater emphasis on the adoption of proactive approach to security management that aims to predict such safety threats and take precaution to prevent them rather than waiting for these events to emerge before we manage them. Our security team undergoes security and human rights training to be mindful of the human rights related issues while dealing with security related challenges at the operations.

### Following are the key elements in our strategy of workplace security management:

- Regular security related risk assessment for timely identification, evaluation, and management of the risks.
- Securing all critical assets with multiple layers of controls, along with implementation of access controls that restrict access to core areas/assets on need basis.

- Empowering Quick Reaction Teams and other security personnel with modern technologies like drones and surveillance cameras.
- Induction and refresher training programmes for security professionals acquainting them with potential threats and requirements of strict adherence with our code of conduct while handling those issues.

## ● Grievance Management

We are committed to strict adherence to Vedanta's code of conduct as part of our employee relationship management. We are equally committed towards securing a positive and fulfilling work culture that contributes to the aspirations of our human assets. However, there remains the possibility of concerns among our employees that need to be adequately and timely addressed. In that direction, we have a dedicated online Strategic Business Unit (SBU) HR Helpdesk that can be used for raising grievances related to HR, Admin, Finance, and IT functions. The portal is managed by the HR function of the respective SBU. Our teams address the complaints smoothly and professionally within stipulated time. In case any matter remains unresolved, we escalate it immediately and present this to the Grievance Committee to undertake appropriate action.

**No strike or lockout exceeding 1 week in duration**

## REWARDS AND RECOGNITION

We believe in rewarding our employees for excellence in their respective functions as our people are our 'partners for growth'. Our leadership team is actively involved in appreciating team and individual efforts at all levels in the Sector. Various external and internal awards received by our Business Units and employees are presented below:

BU	EXTERNAL RECOGNITION
Jharsuguda (9 Awards)	    
BALCO (6 Awards)	   
Alumina (9 Awards)	   

Internal Awards	Jharsuguda	BALCO	Alumina	Total
Chairman Award	11	8	13	32
Sector CEO Award	20	14	6	40
BU CEO Award	36	23	11	70

### Employee Stock Option Scheme (ESOS)

Employee Stock Option Scheme is the main component of our long-term incentive plan. It is a conditional reward scheme for our executives at management level, the award for which is associated with performance as per pre-defined standards. Although the scheme remains directly linked

with Relative-Total Shareholder Return, it also considers the internal parameters of volume, cost, EBITDA, and important ESG criteria like Safety Performance, VSAP score etc. in order to encourage the workforce for greater contribution to respective Business Unit's performance.

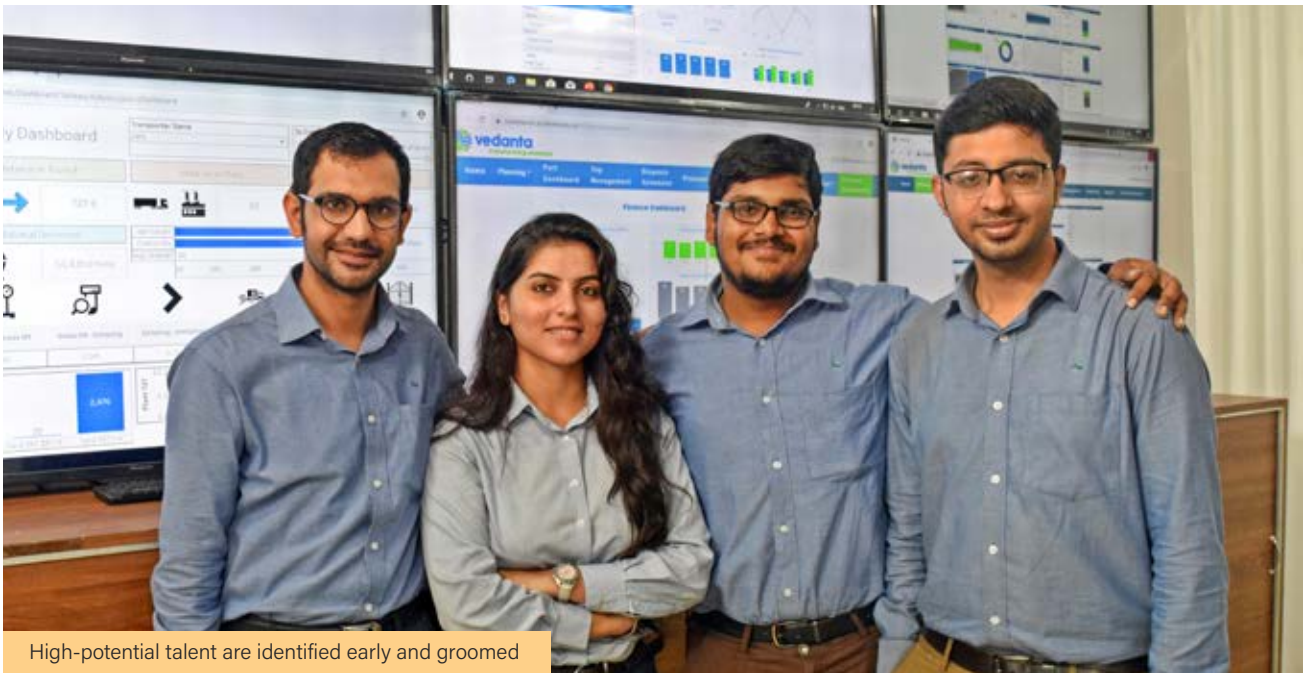
## PROMOTING LEADERS FROM WITHIN:

- **Project Horizon for Young/Deputy Leaders**

At Vedanta we believe in creating a strong succession pipeline from within the business and grooming them to become the next generation CXOs.

Growth workshops are one such process for identification of emerging leaders. These platforms provide avenues to young professionals to demonstrate their passion, competency, and aptitude to take up additional responsibilities/new roles and provide them with them the opportunity for recognition, growth and accelerated career development.

This year we conducted workshops at all of our Business Units and identified 19 employees who have been elevated to Deputy Heads role in their respective departments in Operation/Technical functions. A robust orientation program was held for all the identified deputy leaders with Dy. Sector CEO, Unit CEOs and CHROs. Individual Development Plan is in place for each of the identified leaders and they are being mentored for overall development.



High-potential talent are identified early and groomed

- **V-Reach Graduate Development Program**

In line with our philosophy of identifying and elevating internal leaders, V-Reach is a pan-Vedanta initiative anchored by our Vice Chairman to identify, recognize, and elevate top talent to significantly higher roles.

High potential employees from among those who had joined the company at graduate level are identified

through a comprehensive structured process that includes desktop analysis and online assessment. In our Aluminium Business, we have identified a total of 261 such leaders who have exhibited a consistent performance track record and have elevated them to higher roles.

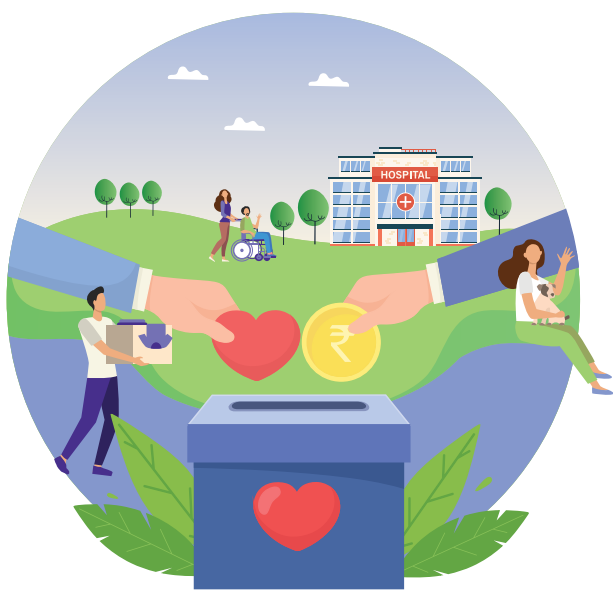








# Social



## Community Welfare

Fostering cordial relations with our neighbouring communities is central to our agenda of sustainable economic growth. We acknowledge the fact that the cooperation of these communities is a prerequisite for our business continuity. It is our fundamental duty to secure and promote the socio-economic interests of these remotely located sections of the society.

### MANAGEMENT APPROACH

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. 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.





Committed to socio-economic development of communities around us

## COMMUNITY DEVELOPMENT PROJECTS

The portfolio of our community development initiatives primarily focuses on empowering the intended beneficiaries with essential resources to become self-reliant and making provision for essential services that are unavailable in remote areas where we operate. These programmes are in complete alignment with UN Sustainable Development Goals (SDGs) and appreciate the spirit of Principle 9 of ICMM, which

dictates that member should commit to pursue continual improvement in social performance and contribute to the social, economic, and institutional development of host countries and communities. In FY 2020-21, we have spent around USD 3.6 million in our community development projects benefiting 500,000 people across 93 core villages and 163 peripheral villages amounting to total of 256 villages.

- **USD 3.6 million spent in community welfare projects**
- **93 core villages covered through community development projects**
- **More than 500,000 lives improved**
- **25 CSR employees and 10 field workers for community development**
- **2,111 hours spent by employees in volunteering for community development activities**



No Poverty

Zero Hunger

Gender Equality



Decent Work and Economic Growth

Reduced Inequality

## SUBHALAXMI COOPERATIVE

Vedanta Limited,  
Jharsuguda

**STATEMENT OF PURPOSE:** The need assessment study at Jharsuguda highlighted the necessity of a sustainable livelihood program for the community residing in our plant periphery. We realised the opportunity for establishment of a community institution to provide livelihood support to local women and their families. With the active support of 10 rural women from the plant periphery, Subhalaxmi Bahumukhee Mahila Samabaya Samiti Ltd., commonly known as Subhalaxmi Co-operative was created and registered in 2008, under the Odisha Cooperative Society Act 1962.

**ABOUT THE PROJECT:** Subhalaxmi Co-op is our flagship sustainable livelihood and women empowerment programme which promotes women leadership and women entrepreneurship. This project enables socio-economic upliftment of rural women through doorstep financial and livelihood promotion services. At its core, Subhalaxmi Co-op's services have four basic components: capacity building & livelihood promotion, financial services (saving & credit), social development, and collaboration & partnership.

To create livelihood opportunities for the women, we undertook various Training Need Identification exercises. Following the findings of these exercises, we rolled out various training and capacity building programmes in tailoring, floriculture, vegetable cultivation, financial literacy, etc. In FY 21, we conducted nearly 30 specialised training programmes for more than 890 members, staff, and Board of Directors (BODs) of the co-op.

In FY21, under its micro- finance services, the co-op has disbursed 871 loans amounting to USD 0.33 million to its members for undertaking micro enterprise development. The members have availed loans for agriculture and allied services, and running their small businesses in beauty and grooming, groceries, fabrication unit, xerox shop, puffed rice making unit, etc. As of date, the co-op has developed and supported 1361 women micro-entrepreneurs in farm and non-farm trades.

Every year Subhalaxmi Co-op conducts their Annual General Body Meeting, where around 100-150 representatives from the general body sit together and undertake policy decisions, pass the resolutions, and make amendments. Every month board meetings are conducted to review the progress of welfare initiatives of the co-op. The BODs also visit the enterprises of the women members to assess progress, and actively take part in mobilization of the programmes by interacting with Self-Help Groups (SHGs), facilitating awareness campaigns about social issues, and overseeing the conduct of training programs and events. Moreover, they ensure peaceful redressal of grievances of the co-op members.

### IMPACT OF THE PROJECT:

- One of the largest women's co-operatives in India with more than 4000 members associated with 339 SHGs.

- Initial contribution of USD 13 in 2008, has now become a fund base of USD 0.48 million.
- Cumulative savings generated by co-op members is USD 0.23 million.
- Increase of 50% in average household income of beneficiaries.
- Around 94.7% of the members have been positively impacted by Subhalaxmi Co-op's empowerment initiatives.
- Micro financial services have generated business worth USD 4.15 million so far.
- The co-op's 'Mahila Kalyan Panthi' welfare scheme has aided 1034 beneficiaries with more than USD 30,000 in the form of one-time cash grant for meritorious performance of their children in matriculation examination, financial assistance to expecting mothers, funeral arrangement, and loan waivers in case of death in the family, etc.
- By the end of FY 2020-21, nearly 83.3% of Subhalaxmi's members had availed loan services, against 33% loan coverage in the previous reporting period.

#### Case Study

### SUCCESS STORY:

Mrs Jasobanti Rohidas is a 25-year-old educated woman from Brundamal village who aspired to have her own business so she could become self-reliant. Encouraged by her husband, she became a member of the Subhalaxmi Co-op through Kaveri SHG in 2018. With the guidance and support of Vedanta and Subhalaxmi Co-op, she availed her first loan to start a mobile accessories and stationary shop.



Today, Jasobanti earns more than USD 2,000 per annum. While fighting stereotypes and charting her own path to success, Jasobanti was silently motivating many of the neighbouring women who, after watching her evolve into a successful entrepreneur, have started chasing their own entrepreneurial visions. For her superlative efforts, she was also awarded and recognized as 'Best Entrepreneur' by Vedanta and Subhalaxmi Co-op on the International Women's Day 2021.

7



12



13



Affordable and Clean Energy

Responsible consumption and production

Climate Action

## CLEAN ENERGY

Vedanta Limited,  
Lanjigarh

**ABOUT THE PROJECT:** We launched the clean energy initiative in FY21 to promote clean lighting and clean cooking among the villages of Lanjigarh. The project aims to drive down the use of kerosene lamps and burning of cow dung, which causes serious health issues and environmental pollution, in favour of clean fuels. Under this project, we have also distributed solar-powered lights to households, with 20% contribution from the beneficiaries themselves to develop a sense of ownership.



**IMPACT OF THE PROJECT:** Until now, 850 families have been covered under this project. Apart from promoting usage of solar-powered lights and fuel-efficient ovens or chulhas, we aim to drive awareness on the impacts of traditional methods on carbon emission and deforestation, starting April'21.

### Case Study



1 	2 	3 	No Poverty	Zero Hunger	Good Health and Well-being
4 	5 	10 	Quality Education	Gender Equality	Reduced Inequality

## NAND GHAR

Vedanta Limited,  
Lanjigarh

**ABOUT THE PROJECT:** Nand Ghars, Vedanta's flagship community development project, are set up in collaboration with the Ministry of Women & Child Development (MoWCD), Government of India, to modernise anganwadis in rural India. Through this initiative, we are doing significant work towards improving child health and nutrition, providing education to children below the age of six, and socio-economic empowerment of women.

The Nand Ghar Project creates state-of-art infrastructures equipped with televisions for e-learning, solar panels for reliable power, safe drinking water and hygienic toilets in an ultra-modern structure, in remote locations of India.

Fresh and nutritious food is provided to children, pregnant and lactating mothers. Primary healthcare services are rendered through mobile health vans and women are enabled through skill development, credit linkage, and enterprise development. The prime agendas of this programme are eradication of child malnutrition, and ensuring provisions of primary education, healthcare, and skill development programmes for women.

In Lanjigarh, the first Nand Ghar was established in November 2018 and by the end of this reporting period, we are running 50 Nand Ghars.

**IMPACT OF THE PROJECT:** Nand Ghar project in Lanjigarh had achieved numerous feats during FY21, such as setting up of 50 Nand Ghars, securing ISO 9001:2015 certifications for 3 Nand Ghars and 2 Anganwadis for the first time in Odisha, creating Interactive Voice Response System (IVRS) avenues for e-learning of children during COVID times, conducting fire safety awareness trainings for Front Line Workers, etc.

We secured ISO certification for offering quality facilities in nutrition, immunisation, health check-ups, pre-school education and skilling for women at our facilities, after a comprehensive evaluation by the UK accredited Forum Limited.



### Case Study





## LAND AND WATER MANAGEMENT

BALCO

### SUCCESS STORY:

**Komal Bhagat** is a young farmer hailing from Bela village near our BALCO operations. He had four acres of land that was lying unused for several years as he lacked the technical knowledge and resources for agriculture. Later, he got to know about the BALCO's 'Land & Water' community development project and got in touch with the CSR team. He was chosen by our team for the Young Farmers Training initiative. Through our training, he got significant understanding in modern agricultural-techniques and his keen interest in vegetable cultivation was substantiated with technical knowledge and support in the form of input materials such as seeds, fertilizers and fencing materials, etc. Komal also attended trainings in organic farming at Vedanta Agricultural Resource Centre (VARC), following which he started applying the acquired knowledge and skills for bountiful harvests from the same land. Today, he is an active member of the local Farmers Producer Organization (FPO).



With continuous technical support from our project team and his own hard work, Komal produced 5 tonnes of vegetables in the first round of farming in one acre of his land. Additionally, under BALCO's Unnati Fresh project, our team also assisted him with market linkages that helped him in fetch good rates for his produce, which earned him USD 1,084. This year he cultivated various crops like watermelon, long beans, French beans, bitter gourd, and cucumber in 2.5 acres of his agricultural land, earning USD 3,431 from sales of the vegetables. With his earnings he has also constructed a storage unit at the farm, upgraded the drip irrigation system, and repaid a personal loan of USD 971 that he had borrowed from his relatives.

### Case Study







## LAND AND WATER MANAGEMENT

BALCO

### SUCCESS STORY:

Another proud beneficiary of Project Land & Water is **Ashok Chandra**, a farmer from Dondro village. Ashok was initially doing paddy cultivation in 3 acres of his land with traditional techniques, and was unable to reap a good harvest. As he was only doing paddy cropping once in a year, his income generation was also low, in the range of USD 521 per year. It was during this time that our CSR team reached out to him. As per the assessment by field team we provided essential support to him in the form of soil testing, System of Rice Intensification (SRI), wheat farming and organic farming, as well as inputs for farming like seeds for black rice, fencing materials, etc.



This year, he started cultivation of organic black rice, and organic wheat. With continued technical guidance provided under Project Land & Water, he was able to reduce the cost of production by 50% in paddy cultivation. He produced 1 tonnes of black rice and 2.5 tonnes of organic rice from his agricultural land. Given the high value of black rice and its medicinal properties, his harvest of black rice was exported to Tamil Nadu with the support of FPO. He generated a total earning of USD 714 from organic paddy cultivation. After paddy, he cultivated organic wheat in 2.5 acres of his agricultural land, producing 2.1 tonnes of wheat that brought him an additional revenue of USD 384. As such, his cumulative earning increased to USD 1,098 this year, almost twice of what he earned the previous year. Besides, he was able to cultivate three crops in the same field, thus opening new avenues in multiple cropping.

Case Study



## PROJECT AROGYA

BALCO

### SUCCESS STORY:

**Moti Ram Yadav** of village Gadtarah suffered an injury to his right leg. Since it was a minor wound, he ignored it initially. After a while he felt difficulty in walking and realised that the condition of wound was worsening with each passing day. Moti Ram spent a significant amount in the initial treatment of the wound but there was little progress in his condition. He was then advised by someone to avail free of cost quality medical services at Vedanta Rural Health Post in Chuiya village.



By the time he reported at our rural health post, the wound had spread more than its initial size and gotten affected with gangrene. Our medical specialists immediately jumped into action, and cleaned the wound delicately. Tests revealed that Moti Ram was also suffering from diabetes, which was keeping his wound from healing. So, our medical team started his medication to control diabetes as well. After that, the doctors attended to his wound for two weeks on a priority basis and advised him to follow a strict diet to control diabetes.

Impact of the project: Moti Ram's situation improved gradually and after three weeks the wound was completely healed. While being discharged, he expressed profuse thanks to the entire staff of the Vedanta Rural Health Post for their help and care which pulled him out of a serious situation.

Case Study



No Poverty

Gender Equality

Decent Work and Economic Growth

Reduced Inequality

## PROJECT UNNATI

BALCO

### SUCCESS STORY:

**Rekha Rathiya** is a 35-year-old resident of village Sonpuri near our BALCO plant. She is married and has two kids, and her husband is a daily wage worker. To improve her household condition, Rekha, formed the Ram-Seeta SHG in 2018 along with other women from the community, and was appointed its president..



During her engagements at cluster level meetings under BALCO's Project Unnati, she got informed about the various skill development initiatives being offered under the project. Rekha had a keen interest in stitching. Our well experienced trainers assisted her in refining her stitching skills. Under Unnati, our CSR team helped her with market linkage, and today she earns around USD 16.2 per month through stitching alone. Parallely, she also underwent mushroom cultivation training and has started doing it at her own house. These days she earns an additional USD 47.2 per month from mushroom cultivation as well.

**Impact of the project:** With a stable source of income, Rekha has become an equal partner to her husband, and both of them are working to improve the overall economic situation of their family.

Case Study



No Poverty

Quality Education

Decent Work and Economic Growth

Reduced Inequality

# VEDANTA SKILL SCHOOL

BALCO

## SUCCESS STORY:

Being the residents of a tribal area, the youth of Korba did not have many opportunities to acquire professional skills. Addressing this issue, BALCO designed a community development program to tackle underemployment of rural youth. With the two-fold objective of equipping rural youth with vocational skills and providing them gainful entry-level employment opportunities, BALCO established the Vedanta Skill School in 2011 at Korba. The success of the first skill school led to creation of two more centres at Mainpat and Kawardha regions. The training process at the school has been designed as per the National Skill Development Corporation (NSDC) guidelines. Post training, the youths are also provided placement linkages.

The story of **Rifat Parveen** is one of the many success stories of Vedanta Skill School project. Having spent her life in a remote region and completing basic education in a backward area, it was difficult for Rifat to find a job. Her family was not able to finance higher education for her either. Rifat got to know about the Vedanta Skill School through the leaflets distributed by the CSR team during block level mobilization. She enquired about the program, got herself enrolled and chose the Small and Medium Organization (SMO) trade, after counselling and orientation. Upon successful completion of her training in 2016, she got placed with BS Apparel Private Limited, where she started earning Rs 9,000 per month and extending financial help to her family.



Rifat Parveen

Post the outbreak of COVID, she lost her job. But Vedanta Skill School came to the aid of their alumni once again. With their robust tracking mechanism, the school management found out that she had lost her job, and immediately set about helping her get another job. She got placed with Trident where she is now getting a salary of around USD 243 per month, even in the pandemic situation. Now, Rifat is not only supporting her family financially, but also supporting the education of her siblings.

### Case Study





## Community Welfare During COVID-19 Pandemic

While COVID-19 pandemic has impacted all sections of the society, it has created bottlenecks for marginalised sections to sustain their livelihoods. Prolonged lockdowns have posed unprecedented challenges for them to fulfil their basic needs. So, all throughout these uncertain times, Vedanta Aluminium has been extending needful support to the vulnerable people. All of our BUs have been supporting local communities through provisions of dry food and cooked meals, medicines and e-consultation through telemedicine facility, masks and sanitisation kits, and other additional relief materials.



COVID Care Centre at Lanjigarh, Odisha



Paediatric COVID ward at our field hospital



Relief distribution to the needy



Women's SHGs stitching masks

**We have lent needful support to our respective state governments, and local communities, which include:**

- Set up 400 bed state of the art critical care facility with oxygen supply at Korba in Chhattisgarh, and Bhawanipatna (Kalahandi) and Deogarh in Odisha, under the Vedanta Cares Field Hospital project. All required medical items, specialized equipment and PPEs have been provided to the hospitals along with a dedicated team of doctors and paramedic staff.
- Given 2000 oxygen cylinders and 92,000 units of Personal Protective Equipment (PPE) to the Government of Odisha last year.
- Distributed 2,95,000 masks stitched by women members of various SHGs, and 3,570 sanitisation kits to residents of nearby villages.
- Conducted sessions on COVID safeguards, handwashing techniques, proper usage of masks, vaccination, etc. in villages of Korba, Lanjigarh and Jharsuguda.
- Undertaken sanitization drives in 22 villages and 11 urban communities.

- BALCO has provided 1000 specialized PPE kits to AIIMS Hospital, Raipur.
- Vedanta Limited, Lanjigarh has provided 10,000 RTPCR testing kits to the District Government Hospital at Bhawanipatna, in Kalahandi district of Odisha.
- Vedanta Limited, Jharsuguda, continues to support the District COVID Hospital at Jharsuguda with ICU beds, ventilators, specialized medical equipment, ambulance, and so on.
- We have supported thousands of daily wage workers and underserved families with dry ration and cooked meals, at each location.
- At Lanjigarh, we have also initiated telemedicine service for the region through the Vedanta Hospital. During lockdown, patients, especially senior citizens who require regular medical consultation, were able to effortlessly connect with our doctors over the phone for free consultation. Specialists in paediatrics, orthopaedics, general medicine, and an Ayurveda,

Yoga, Naturopathy, Unani, Siddha, Sowa-Rigpa and Homoeopathy (AYUSH) doctor attended to the patients over call every day from 9 am to 7 pm. Patients were able to collect medicines from the Vedanta Hospital pharmacy free of cost by showing digital prescriptions sent to them by the doctor over phone.

Despite challenges of logistics as well as those posed by an unprecedented situation, our teams strived their best to support local communities during the pandemic, from coaching on COVID appropriate behaviour to providing relief support. Their relentless efforts stand testimony to Vedanta's mission of working for the greater good of all, as we harness natural resources and turns them into tools of prosperity that transform millions of lives and livelihoods across the country.

**USD 0.78 million spent in COVID relief campaigns**



Disinfection at plant premises



Handwashing awareness sessions



Mask distribution through Mobile Health Unit



Community vaccination







# Annexures



## Assurance Statement



### INDEPENDENT ASSURANCE STATEMENT OF VEDANTA LIMITED, ALUMINIUM SECTOR FOR SUSTAINABILITY REPORT FY 2020-21

To  
**The Management of**  
**Vedanta Limited, Aluminium Sector**  
**Village Bhurkamunda, P.O. Kalimandir, District Jharsuguda,**  
**Odisha - 768202**

#### Introduction and objective of engagement

Vedanta Limited, Aluminium Sector ('VAL' or the 'Company') has developed its Sustainability Report 2020-21 (the 'Report') in accordance with GRI Standards: Core Option. Thinkthrough Consulting Private Limited (TTC) was engaged by VAL to provide an independent assurance to its Sustainability Report (the 'Report') for the Financial Year 2020-21 covering the Company's sustainability performance during the period 1st April 2020 to 31st March 2021.

#### Intended Users of this Assurance Statement

This Assurance Statement is intended to be part of VAL's Sustainability Report for the Financial Year 2020-21.

#### Respective responsibilities

The Report content and its presentation are the sole responsibilities of the management of the Company. The Company management is also responsible for the design, implementation, and maintenance of internal controls relevant to the preparation of the Report, so that it is free from material misstatement, whether due to fraud or error.

TTC's responsibility, as agreed with the management of the Company, is to provide assurance on the Report content as described in the 'Assurance Scope' and 'Methodology' sections below. We do not accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance a third party may place on the Report is entirely at its own risk.

#### Assurance Scope

The Assurance has been provided for sustainability performance disclosures presented by VAL in its Report. We conducted audit trails, reviews, discussions with officials of the Company, and gathered evidence on sample basis, at the following sites of the Company:

- Lanjigarh Alumina Refinery (Odisha);
- BALCO Aluminium Smelter, Korba (Chhattisgarh);
- Jharsuguda Aluminium Smelter (Odisha).

#### Assurance Criteria

The assurance process was conducted in line with the requirements of the AA1000 Assurance Standard v3 (2020). We applied Type 2<sup>1</sup> moderate<sup>2</sup> level of assurance.

#### Methodology

Our assurance processes involved performing procedures to obtain evidence about the reliability of sustainability performance information. The nature, timing and extent of procedures selected were based on our professional judgement, including the assessment of the risks of material misstatement of the performance indicators. The steps we followed are outlined below:

- Assessment of VAL's reporting procedures for sustainability regarding their consistency with the reporting criteria;
- Verification of systems and procedures used for gathering, collation, and analysis of sustainability performance data those are included in the Report;
- Understanding the appropriateness of various assumptions and methodologies for estimations used by VAL for data analysis;
- Discussions with the key personnel responsible for data management at Company's head office and at select sites.

Appropriate documentary evidence were obtained to support our conclusions on the information and data verified. Where such documentary evidence were shown to us but could not be retained by us on account of confidentiality or other reason, we recorded our observations appropriately after review of such evidence.

<sup>1</sup> Type 2 assurance is an engagement in which the assurance provider gives findings and conclusions on the principles of Inclusivity, Materiality, Impact and Responsiveness, and verifies the reliability of specified sustainability performance information.

<sup>2</sup> A moderate level of assurance comprise of limited depth of evidence gathering including inquiry and analytical procedures and limited sampling as per professional judgement of assurance provider.

#### Limitations

We conducted our review to express a moderate assurance conclusion. A moderate level assurance engagement relies on a risk-based chosen sample of the selected information and the associated limitations that this entails. Our review was limited to the sample sites mentioned above.

Due to the outbreak of the COVID-19 pandemic, and the resultant travel and meeting restrictions, data assurance, including audit trails on sample basis, and discussions with Company's officials were done remotely using appropriate web enabled tools. We did not conduct any physical verification at locations or offices of the Company.

Following are specifically excluded from our assurance scope:

- VAL's disclosures on financial performance;
- The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention;
- Data and information outside the defined reporting period, i.e., 1<sup>st</sup> April 2020 to 31<sup>st</sup> March 2021.

#### Our observations and opportunities for improvement

While the sustainability disclosures of the Company, other than specifically excluded, are fairly reliable, the Company has an opportunity to augment the robustness of its data management system, including internal review mechanism, to further enhance the accuracy of reporting. Specifically, the Company may improve the auditability of data trail up to the first level of data entry into the system for all indicators, and also improve on efficiency of retrieval of documentary evidence in a timely manner.

#### Our conclusion

Based on our review, our conclusions are outlined below:

- **Inclusivity:**  
We are not aware of any matter that would lead us to conclude that the Company has not applied the principle of inclusivity in engaging with key stakeholder groups. The Company transparently disclosed its stakeholder engagement approach and activities in the Report.
- **Materiality:**  
We noted that the Company has listed the material topics in the Report. Nothing has come to our attention that causes us to believe that any material topic has been excluded from the Report of the Company.
- **Responsiveness:**  
We are not aware of any matter that would lead us to believe that the Company has not applied the responsiveness principle for dealing with key stakeholders on material topics covering its sustainability performance.
- **Impact:**  
We are not aware of any matter that would lead us to believe that the Company does not monitor and measures and is not accountable for how their actions affect their broader ecosystem.

#### Our assurance and independence

TTC is a professional services firm that specialises in accountability on sustainability issues. The assurance was performed by our multi-disciplinary competent team of experts in non-financial assurance, specifically AA1000AS v3, who have extensive experience in conducting independent assurances of environmental, GHG, health, safety, social, economic, and ethical data, systems, and processes. We have implemented measures to ensure that we follow the applicable independence procedures.

For Thinkthrough Consulting Pvt. Ltd.



Dipankar Ghosh, Partner  
New Delhi  
7<sup>th</sup> September 2021



**AA1000**  
Licensed Report  
000-223/V3-QX1EY

## From GRI Standards Index

GRI STANDARD	DISCLOSURE	RESPONSE
<b>GRI 101: Foundation 2016 [GRI 101 does not include any disclosures]</b>		
<b>General Disclosures</b>		
<b>ORGANIZATIONAL PROFILE</b>		
GRI 102- General Disclosures 2016	102-1: Name of the Organization	<b>Aluminium, Vedanta Resources Limited</b>
	102-2: Activities, brands, products, and services	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Page 6 (Overview)</b>
	102-3: Location of headquarters.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Back Cover</b>
		Floor 3, Scope Complex, Core 6, Lodhi Road, New Delhi, Delhi 110003
	102-4: Location of operations	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 14-15 (Our Operations and Assets)</b>
	102-5: Ownership and legal form.	<b>Vedanta Annual Report 2020-21: Pages 249-250 (Shareholding distribution)</b>
	102-6: Markets served.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 18-19 (Markets and Products)</b>
	102-7: Scale of the organization	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 6 (Overview), Page 18-19 (Markets and Products), Page 20 (Our Economic Performance)</b>
	102-8: Information on employees and other workers.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 76-95 (Our People)</b>
	102-9: Supply chain.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 14-15 (Our Business), Pages 40-41 (Supply Chain management)</b>
	102-10: Significant changes to the organization and its supply chain.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 14-15 (Our operations and Assets)</b>
		Vedanta has acquired Jamkhani coal block in Sundargarh district, Odisha. It has an approved mining capacity of 2.6 million tonnes with the total extractable reserves of 114 million tonnes.
	102-11: 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.
102- 12: External initiatives.	Vedanta, Aluminium aligns itself with the following external charters & principles:UN Global Compact, UN Sustainable Development Goals, ICMM, IFC Performance Standards, GHG Greenhouse Gas Protocol	
102- 13: Memberships of 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>STRATEGY</b>		
GRI 102- General Disclosures 2016	102-14: Statement from senior decision-maker	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 10-11 (From the Chairman's Desk), Page 12-13 (Dy. CEO's Corner)</b>

ETHICS & INTEGRITY		
GRI 102- General Disclosures 2016	102-16: Values, principles, standards, and norms of behaviour	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 30 (Vedanta Sustainability framework)
	102-17: Mechanisms for advice and concerns about 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 2020-21:</b> Page 175;257 Vigil mechanism/Whistle-Blower Policy
GOVERNANCE		
GRI 102- General Disclosures 2016	102-18: Governance Structure	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 32-33 (Sustainability Governance)
	Delegating authority	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.
	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; Mr. Dindayal Jalan, Mr. Akhilesh Joshi and Mr. Sunil Duggal as the Members.
	Consulting stakeholders on economic, environmental, and social topics	
	Composition of the highest governance body and its committees	
	Chair of the highest governance body	The Chairperson of the Board of Directors is a Non-Executive Director. <b>Vedanta Annual Report 2020-21,</b> Page: 219 (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
	Nominating and selecting the highest governance body	<b>Vedanta Annual Report 2020-21,</b> Page: 227 (Process for Board and Senior Management Appointments) <b>Vedanta Annual Report 2020-21,</b> Page: 179 (Policy on Directors' Appointment & Remuneration)
	Conflicts of interest	<b>Vedanta Annual Report 2020-21,</b> Page: 228 (Directors' / KMPs/ SMPs conflicts of interest) <b>Vedanta Annual Report 2020-21,</b> Page: 238 (Nomination & Remuneration Committee) 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.

Role of highest governance body in setting purpose, values, and strategy	<p><b>Vedanta Annual Report 2020-21</b>, Page: 177 (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>
Collective knowledge of highest governance body	<p><b>Vedanta Annual Report 2020-21</b>, Page: 217 (Corporate Governance Framework of which ESG forms an integral part) Vedanta Annual report, Page: 221, 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.</p>
Evaluating the highest governance body's performance	<p><b>Vedanta Annual report</b>, Page: 229 (Performance Evaluation)</p>
Identifying and managing economic, environmental, and social 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.</p> <p><a href="https://vedantalimited.com/InvestorReports/VEDLOutcomeofBoardMeeting26July2021.pdf">https://vedantalimited.com/InvestorReports/VEDLOutcomeofBoardMeeting26July2021.pdf</a></p>
Effectiveness of risk management processes	<p><b>Vedanta Annual report</b>, Pages: 50-59 (Risk Management Framework)</p> <p>The Board, with the assistance of the management, conducts periodic and robust assessments of principal risks and uncertainties of the Group, and tests the financial plans for each risk and uncertainty</p>
Review of economic, environmental, and social topics	<p>As per updated Terms of Reference of the Board level ESG Committee, the Committee shall meet twice every year for discussions and deliberations.</p>
Highest governance body's role in sustainability reporting	<p>There is an internal approval system in the Company for appointment of external assurance provider for the sustainability report.</p>
Communicating critical concerns	<p><b>Vedanta Annual Report</b>, Pages: 76 (VSAP)</p> <p>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 &amp; Sustainability aspects of the business. Vedanta Annual report, Pages: 242 (Sustainability committee)</p>
Nature and total number of critical concerns	

	Remuneration policies	<b>Vedanta Annual report</b> , Pages: 172 Compensation Governance Practices at Vedanta <b>Vedanta Annual report</b> , Pages: 172 Managerial Remuneration, Employee Information and Related Disclosures. <b>Vedanta Annual report</b> , Pages: 179 Policy on Directors' Appointment & Remuneration <b>Vedanta Annual report</b> , Pages: 232 Board & Executive Leadership Remuneration Policy
	Process for determining remuneration	<b>Vedanta Annual report</b> , Pages: 172 Compensation Governance Practices at Vedanta <b>Vedanta Annual report</b> , Pages: 172 Managerial Remuneration, Employee Information and Related Disclosures.
	Stakeholders' involvement in remuneration	
	Annual total compensation ratio	
	Percentage increase in annual total compensation ratio	
<b>STAKEHOLDER ENGAGEMENT</b>		
GRI 102- General Disclosures 2016	102-40: List of stakeholder groups	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 36-38 (Stakeholder Engagement)
	102-41: Collective bargaining agreements	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 82-83 (Human Rights)
	102-42: Identifying and selecting stakeholders	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 36-38 (Stakeholder Engagement)
	102-43: Approach to stakeholder engagement	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 36-38 (Stakeholder Engagement)
	102-44: Key topics & concerns raised	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 35 (Material Issues for Aluminium and Power)
<b>REPORTING PRACTICE</b>		
GRI 102- General Disclosures 2016	102-45: Entities included in the consolidated financial statements	<b>Vedanta Resources Limited Annual Report 2020-21: Page 373 (Consolidated Financials)</b> <a href="https://www.vedantalimited.com/vedanta/vedanta_ir_2020-21.pdf">https://www.vedantalimited.com/vedanta/vedanta_ir_2020-21.pdf</a>
	102-46: Defining report content and topic boundaries.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Page 2 (About this report)
	102-47: List of material topics.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 34-35 (Materiality assessment)
	102-48: Restatements of information	Long term vision of zero harm, zero waste and zero discharge continues to form the basis of our ESG practices.
	102-49: Changes in reporting	This year we are not considering TSPL in our Aluminium sustainability report as it is now under Power Vertical.
	102-50: Reporting period	The reporting period for this report is FY2020-21.
	102-51: Date of most recent report	Vedanta's previous sustainability report was released in FY 2019-20
	102-52: Reporting cycle	Annual
	102-53: Contact point for questions regarding the report.	Questions can be directed to: aluminium.sustainability@vedanta.co.in
	102-54: Claims of reporting in accordance with the GRI Standards.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Page 2 (About this report)
	102-55: GRI Content Index	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 116-135 (GRI Content Index)
	102-56: External Assurance	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 114-115 (Assurance Statement)

Category: Economic

GRI STANDARD	DISCLOSURE	RESPONSE																											
<b>ECONOMIC PERFORMANCE</b>																													
GRI 103: Management Approach 2016		Boundary: Aluminium Sector, Vedanta  <b>Aluminium, Vedanta Sustainability Report 2019-20:</b> Pages 20 (Our Economic Performance)																											
GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed.	<b>Aluminium, Vedanta Sustainable Development Report 2019-20:</b> Pages 20 (Our Economic Performance)																											
		<table border="1"> <thead> <tr> <th>Economic Value Generated and Distributed (in INR million)</th> <th>FY 2020-21</th> <th>FY2019-20*</th> </tr> </thead> <tbody> <tr> <td><b>Economic value generated</b></td> <td>3,10,926</td> <td>2,86,815</td> </tr> <tr> <td><b>Economic value distributed</b></td> <td>2,63,113</td> <td>2,80,195</td> </tr> <tr> <td>a) Operating Costs</td> <td>2,03,388</td> <td>2,35,079</td> </tr> <tr> <td>b) Employee wages and benefits</td> <td>9,846</td> <td>8,300</td> </tr> <tr> <td>c) Payment to providers of capital</td> <td>49,140</td> <td>35,597</td> </tr> <tr> <td>d) Payment to government</td> <td>82</td> <td>276</td> </tr> <tr> <td>e) Community investments (including donation)</td> <td>657</td> <td>944</td> </tr> <tr> <td><b>Economic value retained</b> (Calculated as Economic value generated less economic value distributed)</td> <td>47,813</td> <td>6,621</td> </tr> </tbody> </table>	Economic Value Generated and Distributed (in INR million)	FY 2020-21	FY2019-20*	<b>Economic value generated</b>	3,10,926	2,86,815	<b>Economic value distributed</b>	2,63,113	2,80,195	a) Operating Costs	2,03,388	2,35,079	b) Employee wages and benefits	9,846	8,300	c) Payment to providers of capital	49,140	35,597	d) Payment to government	82	276	e) Community investments (including donation)	657	944	<b>Economic value retained</b> (Calculated as Economic value generated less economic value distributed)	47,813	6,621
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* Values for FY 2019-20 are revised since the methodology for calculation has been aligned with that of Vedanta Limited																													
<b>MARKET PRESENCE</b>																													
GRI 103: Management Approach 2016		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 Sustainable Development Report 2020-21:</b> Pages 86-87 (A Journey Towards People Excellence)																											
<b>INDIRECT ECONOMIC IMPACTS</b>																													
GRI 103: Management Approach 2016		Vedanta directly contributes 0.40% to India's GDP through its operations. The indirect impact of company through its supply chain network, contribution to GDP, and ability to generate employment across the value chain is as large as one percent of India's GDP. The company also impacts the economy through the remuneration of its employees, a part of which is spent on consumption of goods and services, which further creates jobs and increases the country's GDP. This impact, known as the induced impact, is as large as 2.20% of India's GDP for which Vedanta Aluminium's contribution is around than 0.9%. (Vedanta Aluminium - Jharsuguda (0.64), BALCO (0.26))																											
GRI 203: Indirect Economic Impacts 2016	203-1: Infrastructure investments and services supported.	<b>Vedanta Aluminium and Power Sustainability Report 2019-2020:</b> Pages 40-41 (Our Economic Performance)																											
	203-2: Significant indirect economic impacts	<b>Vedanta Aluminium and Power Sustainability Report 2019-2020:</b> Pages 40-41 (Our Economic Performance)																											
<b>PROCUREMENT PRACTICES</b>																													
	204-1: Proportion of spending on local suppliers																												



ANTI-CORRUPTION			
GRI 103: Management Approach 2016		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. <b>Aluminium, Vedanta Sustainable Development report 2020-21 : Page 25 (Code of Conduct)</b>	
	205-2: Communication and training about anti-corruption policies and procedures	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Page 25 (Code of business conduct and Ethics)</b>	
	205-3: Confirmed incidents of corruption and action taken	<b>FY 2020-21</b>	
		Number of Open Complaints on April 1st 2020	2
		Number of Whistle Blower Cases opened in FY 2020-21	39
		Number of Whistle Blower Cases upheld and found correct in FY 2020-21	13
		Number of incidents in which employees were dismissed or disciplined for corruption	10
		Number of incidents where contracts with business partners were terminated or not renewed due to violation related to corruption	7
		Number of Public legal Whistle Blower cases brought against company, or employees	0
		Number of Whistle Blower Cases closed in FY 2020-21	38
	Open complaints on 31st March, 2021	3	
ANTI-COMPETITIVE BEHAVIOUR			
GRI 103: Management Approach 2016		<b>From Code of Business Conduct and Ethics:</b> 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. <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 206: Anti-Competitive Behaviour 2016	206-1: Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices.	No legal action.	

TAX		
GRI 207:	207-1: Approach to tax	We have a long-standing commitment to transparency.
	207-2 Tax governance, control, and risk management	Substance, Transparency and Arm Length Principle, Tax Risk Management Framework, Controls  <b>Vedanta Resources Limited TAX TRANSPARENCY REPORT 2019-20</b>
	207-3 Stakeholder engagement and management of concerns related to tax	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.  Vedanta has also formed an internal 'Tax Council' which acts as an overarching governing body to the tax function as a whole.  <b>Vedanta Resources Limited TAX TRANSPARENCY REPORT 2019-20</b>

Category: Environment

GRI STANDARD	DISCLOSURE	RESPONSE																																			
<b>ENERGY</b>																																					
GRI 103: Management Approach 2016		We are committed towards reducing the environmental impact of our operating portfolio through a structured approach that emphasises the adoption of best-in-industry practises. This includes consistent improvements in efficiency of resource-intensive processes, adopting state-of-the-art technological solutions, exploring circular initiatives, and incorporating 'Design for Sustainability' principles. Our Sustainable Development Framework encompasses policies and standards that direct our efforts towards managing our environmental footprint. The coverage of our environmental reporting extends to 100% of our business operations.  <b>Aluminium, Vedanta Sustainable Development Report 2020-21 Page 48</b>																																			
GRI 302: Energy 2016	302-1: Energy consumption within the organization	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 50-57 (Climate Change and Energy Management)</b>  Unit wise breakup of total energy consumption (GJ) within organisation is as below: <table border="1"> <thead> <tr> <th rowspan="2">Business</th> <th rowspan="2"></th> <th colspan="3">Total Energy (GJ)</th> </tr> <tr> <th>FY 2020-21</th> <th>FY2019-20</th> <th>FY2018-19</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Aluminium Business</td> <td>BALCO</td> <td>9,03,78,188</td> <td>9,19,88,245</td> <td>9,14,92,473</td> </tr> <tr> <td>Lanjigarh</td> <td>1,99,48,377</td> <td>1,96,45,071</td> <td>1,60,37,816</td> </tr> <tr> <td>Jharsuguda</td> <td>22,04,50,018</td> <td>20,63,42,221</td> <td>19,24,82,924</td> </tr> <tr> <td rowspan="2">Power Business</td> <td>BALCO IPP</td> <td>3,24,86,150</td> <td>3,12,93,487</td> <td>2,82,87,757</td> </tr> <tr> <td>Jharsuguda IPP</td> <td>2,83,92,936</td> <td>78,28,452</td> <td>1,04,64,646</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>39,16,55,668</b></td> <td><b>35,70,97,478</b></td> <td><b>33,87,65,615</b></td> </tr> </tbody> </table>	Business		Total Energy (GJ)			FY 2020-21	FY2019-20	FY2018-19	Aluminium Business	BALCO	9,03,78,188	9,19,88,245	9,14,92,473	Lanjigarh	1,99,48,377	1,96,45,071	1,60,37,816	Jharsuguda	22,04,50,018	20,63,42,221	19,24,82,924	Power Business	BALCO IPP	3,24,86,150	3,12,93,487	2,82,87,757	Jharsuguda IPP	2,83,92,936	78,28,452	1,04,64,646	<b>Total</b>		<b>39,16,55,668</b>	<b>35,70,97,478</b>	<b>33,87,65,615</b>
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	302-2: Energy consumption outside of the organization																																				

	302-3: Energy Intensity	Specific Energy Consumption (GJ/Unit of Production Output)						
		<b>Business</b>		<b>FY 2020-21</b>	<b>FY2019-20</b>	<b>FY2018-19</b>		
		Aluminium Business	BALCO	52.16	53.02	52.45		
			Lanjigarh	7.22	7.22	7.53		
			Jharsuguda	53.04	53.29	53.09		
		Power Business	BALCO IPP	10.30	9.56	10.22		
		Jharsuguda IPP	9.99	9.98	8.14			
	302-4: Reduction of energy consumption.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 50-57 (Climate Change and Energy Management)						
	302-5: Reductions in energy requirements of products and services	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 64-65 (Material Efficiency)						
<b>WATER</b>								
GRI 103: Management Approach 2016		<p>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.</p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 66-69 (Water Management)</p>						
GRI 303: Water 2016	303-1: Water withdrawal by source		<b>FY 2020-21</b>		<b>FY 2019-20</b>		<b>FY2018-19</b>	
		<b>Unit</b>	<b>Ground Water (m3)</b>	<b>Surface Water (m3)</b>	<b>Ground Water (m3)</b>	<b>Surface Water (m3)</b>	<b>Ground Water (m3)</b>	<b>Surface Water (m3)</b>
		BALCO	0	2,91,85,025	0	2,85,89,920	59,940	2,85,81,100
		Lanjigarh	0	48,15,951	0	42,38,925	0	45,05,208
		Jharsuguda	0	5,03,83,922	0	4,33,96,753	0	4,37,79,803
		Total	0	8,43,84,898	0	7,62,25,598	59,940	7,68,66,111
	*BALCO IPP and Jharsuguda IPP water consumption is included in the above matrix.							
	303-2: Water sources significantly affected by withdrawal of water.	At all of our locations, we carefully monitor our water withdrawals and usage and where feasible, make efforts to recharge the water sources.						
	303-3: Water recycled and reused.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 66-69 (Water Management) Aluminium, Vedanta has recycled 16.38% of water in FY 2020-21.						
<b>BIODIVERSITY</b>								
GRI 103: Management Approach 2016		<p>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.</p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 72-73 (Biodiversity Management)</p>						

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	The following sites are located adjacent to areas of high biodiversity value or protected areas:			
		<b>Business Unit</b>	<b>Site</b>	<b>Location</b>	<b>Area of Biodiversity Value</b>
		Aluminium	Vedanta Lanjigarh	Lanjigarh, India	Niyamgiri, Khambesi and nine other reserve forest areas
	304-2: Significant impacts of activities, products, and services on biodiversity				
	304-3: Habitats protected or restored	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 72-73 (Biodiversity Management)			
	304-4: IUCN Red List species and national conservation list species with habitats in areas affected by operations.	<b>IUCN Classification</b>			<b>India</b>
		Critically Endangered			0
Endangered			3		
Vulnerable			9		
Near Threatened			9		
	Least Concern			99	
MM1: Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 72-73 (Biodiversity Management)				
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.				
<b>EMISSIONS</b>					
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 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.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Page 55 (GHG Emissions Performance) Our business-wise Scope I emissions are:			
	<b>Business</b>		<b>Scope I Emission (tCO2e)</b>		
			<b>FY 2020-21</b>	<b>FY 2019-20</b>	<b>FY2018-19</b>
	Aluminium	BALCO	98,00,513	99,88,944	99,24,011
		Jharsuguda	2,39,26,260	2,28,89,717	2,18,01,821
		Lanjigarh	17,87,966	17,86,097	14,40,950
	Power Business	BALCO IPP	31,21,348	30,06,835	27,17,357
		Jharsuguda IPP	27,28,097	7,52,210	10,05,508
	<b>Total</b>		<b>4,13,64,184</b>	<b>3,84,23,803</b>	<b>3,68,89,647</b>
	305-2: Energy indirect (Scope 2) GHG emissions	<b>Vedanta Sustainability Report 2018-19:</b> Page 29 (GHG Emissions Performance) Our business-wise Scope II emissions are:			
<b>Business</b>		<b>Scope I   Emission (tCO2e)</b>			
		<b>FY 2020-21</b>	<b>FY 2019-20</b>	<b>FY2018-19</b>	
Aluminium	BALCO	2,143	0	27,308	
	Jharsuguda	5,10,837	8,02,664	26,24,891	
	Lanjigarh	6,595	1,593	2,929	
Power Business	BALCO IPP	0	0	0	
	Jharsuguda IPP	0	0	0	
<b>Total</b>		<b>5,19,576</b>	<b>8,04,257</b>	<b>26,55,128</b>	
305-4: GHG emissions intensity	<b>FY2020-21</b>				
<b>Business</b>		Scope 1 + Scope 2 GHG Emissions (tCO2e)	Revenue (US\$ mn)	GHG Intensity (tCO2e/US\$ mn)	
<b>Total</b>		4,18,83,760	4,196	9,982	
	<b>FY2019-20</b>				
<b>Business</b>		Scope 1 + Scope 2 GHG Emissions (tCO2e)	Revenue (US\$ mn)	GHG Intensity (tCO2e/US\$ mn)	
<b>Total</b>		3,92,28,060	4,048	9,691	
	<b>FY2018-19</b>				
<b>Business</b>		Scope 1 + Scope 2 GHG Emissions (tCO2e)	Revenue (US\$ mn)	GHG Intensity (tCO2e/US\$ mn)	
<b>Total</b>		3,95,44,775	4,627	8,547	
305-5: Reduction of GHG emissions	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 50-57 (Climate Change and Energy management)				
305-6: Emissions of ozone-depleting substances (ODS)					

	305-7: NOX, SOX, and other significant air emissions.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 70-71 (Air Quality and Emissions Control)</b>			
		<b>FY2020-21 (in MT)</b>			
		<b>Business</b>	<b>PM Emissions</b>	<b>SOx Emissions</b>	<b>NOx Emissions</b>
		BALCO*	0	0	0
		Jharsuguda	5,578	1,29,957	43,318
		Lanjigarh	182	13,210	3,946
		<b>Total</b>	<b>5,760</b>	<b>1,43,167</b>	<b>47,264</b>
		<b>FY2019-20 (in MT)</b>			
		<b>Business</b>	<b>PM Emissions</b>	<b>SOx Emissions</b>	<b>NOx Emissions</b>
		BALCO*	0	0	0
		Jharsuguda	4,581	1,35,908	33,241
		Lanjigarh	337	9,751	3,163
		<b>Total</b>	<b>4,918</b>	<b>1,45,659</b>	<b>36,403</b>
<b>FY2018-19 (in MT)</b>					
<b>Business</b>	<b>PM Emissions</b>	<b>SOx Emissions</b>	<b>NOx Emissions</b>		
BALCO*	0	0	0		
Jharsuguda	4,270	1,20,293	28,408		
Lanjigarh	431	6,773	2,829		
<b>Total</b>	<b>4,700</b>	<b>1,27,066</b>	<b>31,237</b>		
* Emission from BALCO are not reported					

#### EFFLUENTS AND WASTE

GRI 103: Management Approach 2016		<p>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 ICMM'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.</p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21: Pages 58-63 (Waste Management)</b></p>																				
GRI 306: Effluents and Waste 2016	306-1: Water discharge by quality and destination.	<p><b>Aluminium, Vedanta Sustainable Development Report 2020-21</b></p> <p>Our operating philosophy is of 'zero discharge', where the generated wastewater is treated and completely recycled back into process areas.</p> <p>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.</p> <p>Wastewater Discharged:</p> <table border="1"> <thead> <tr> <th>Business</th> <th>FY 2020-21</th> <th>FY2019-20 (m3)</th> <th>FY2018-19 (m3)</th> </tr> </thead> <tbody> <tr> <td>BALCO</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Jharsuguda</td> <td>1,20,037</td> <td>1,05,304</td> <td>1,17,142</td> </tr> <tr> <td>Lanjigarh</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td><b>Total</b></td> <td><b>1,20,037</b></td> <td><b>1,05,304</b></td> <td><b>1,17,142</b></td> </tr> </tbody> </table>	Business	FY 2020-21	FY2019-20 (m3)	FY2018-19 (m3)	BALCO	0	0	0	Jharsuguda	1,20,037	1,05,304	1,17,142	Lanjigarh	0	0	0	<b>Total</b>	<b>1,20,037</b>	<b>1,05,304</b>	<b>1,17,142</b>
Business	FY 2020-21	FY2019-20 (m3)	FY2018-19 (m3)																			
BALCO	0	0	0																			
Jharsuguda	1,20,037	1,05,304	1,17,142																			
Lanjigarh	0	0	0																			
<b>Total</b>	<b>1,20,037</b>	<b>1,05,304</b>	<b>1,17,142</b>																			

	306-2: Waste by type and disposal method.	<b>Aluminium, Vedanta Sustainable Development Report 2019-20:</b> Pages 58-63 (Waste Management)				
	<b>FY2020-21</b>					
	<b>Business</b>	<b>Hazardous Waste (MT)</b>		<b>Non-Hazardous Waste (MT)</b>		
		<b>Generated</b>	<b>Recycled</b>	<b>Generated</b>	<b>Recycled</b>	
	BALCO*	2,022	4,258	5,63,236	7,46,882	
	Jharsuguda	2,64,903	2,32,641	81,23,554	1,00,10,736	
	Lanjigarh	6	66	4,83,135	1,17,659	
	<b>Total</b>	<b>2,66,931</b>	<b>2,36,966</b>	<b>91,69,925</b>	<b>1,08,75,276</b>	
	<b>FY2019-20</b>					
	<b>Business</b>	<b>Hazardous Waste (MT)</b>		<b>Non-Hazardous Waste (MT)</b>		
		<b>Generated</b>	<b>Recycled</b>	<b>Generated</b>	<b>Recycled</b>	
	BALCO*	11,777	9,731	28,70,128	28,93,120	
	Jharsuguda	2,74,639	1,79,511	58,28,529	62,28,232	
	Lanjigarh	76	429	25,46,014	4,61,662	
	<b>Total</b>	<b>2,86,492</b>	<b>1,89,671</b>	<b>1,12,44,671</b>	<b>95,83,014</b>	
	<b>FY2018-19</b>					
	<b>Business</b>	<b>Hazardous Waste (MT)</b>		<b>Non-Hazardous Waste (MT)</b>		
		<b>Generated</b>	<b>Recycled</b>	<b>Generated</b>	<b>Recycled</b>	
BALCO*	7,004	2,628	27,98,031	28,45,440		
Jharsuguda	2,81,327	1,74,749	55,51,421	64,91,023		
Lanjigarh	362	20	20,54,507	3,76,334		
<b>Total</b>	<b>2,88,693</b>	<b>1,77,397</b>	<b>1,04,03,959</b>	<b>97,12,797</b>		
	<p>*4 significant hazardous wastes are reported for BALCO namely Spent pot lining, Aluminium dross, Biomedical waste and used lead acid batteries</p> <p>*Recycled waste is more than generated waste due to recycling of legacy waste</p>					
306-3: Significant spills						
MM3: Total amounts of overburden, rock, tailings, and sludge's and their associated risks.	<b>Unit</b>	<b>FY 2020-21</b>	<b>FY2019-20</b>	<b>FY2018-19</b>		
	<b>Overburden</b>	MT	2,00,583	1,44,22,341	35,85,046	
	<b>Tailings</b>	MT	90,01,835	1,31,05,801	1,26,89,301	
	<p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 58-60 (Waste Management, Bauxite Residue and Ash Management)</p> <p>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></p>					
<b>ENVIRONMENTAL COMPLIANCE</b>						
	307-1: Non-compliance with environmental laws and regulations	We continuously monitor non compliance with environmental laws and regulations and take proactive steps to be 100% compliant.				
<b>SUPPLIER ENVIRONMENTAL ASSESSMENT</b>						
GRI 103: Management Approach 2016		<p>At each of our businesses, the vendor on-boarding process requires vendor disclosure of their HSE &amp; Sustainability systems. In addition, project specific requirement may require additional screening of vendors for the environmental management systems.</p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Page 40-41 (Supply Chain Management)</p>				
GRI 308: Supplier Environmental Assessment 2016	308-1: New suppliers that were screen using environmental criteria	<p>All new suppliers undergo Sustainability screening checklist and scoring system before getting registered with us.</p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Page 40-41 (Supply Chain Management)</p>				
	308-2: Negative environmental impacts in the supply chain and actions taken	<p>In case a supplier is categorized as sustainability high risk, appropriate measures are taken to remediate the same.</p>				

GRI STANDARD	DISCLOSURE	RESPONSE							
<b>EMPLOYMENT</b>									
GRI 103: Management Approach 2016		<p>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.</p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21: Page 86</b></p>							
401-1: New employee hires and employee turnover			<b>% of Total full-time employees</b>						
			<b>2020-21</b>						
			<b>2019-20</b>						
			<b>2018-19</b>						
	Employee turnover including retirements and including VRS		14.35%						
			10.16%						
			10.14%						
	Total Attrition (Refers to Employee initiated separation)		719%						
			8.26%						
			6.48%						
		<b>Employee Turnover &amp; Attrition by Region (FY2020-21)</b>							
		<b>BALCO</b>							
		<b>Jharsuguda</b>							
		<b>Lanjigarh</b>							
		<b>Total</b>							
Employee turnover including retirements and including VRS		Number	487						
		Rate	25.03%						
		8.56%	9.67%						
		14.35%							
Total Attrition (Refers to Employee initiated separation)		Male	86						
		Female	26						
		183	34						
		21	104						
		<b>Gender</b>	<b>Region</b>	<b>Age</b>	<b>BALCO</b>	<b>VL Lanj</b>	<b>VL Jhar</b>	<b>Total</b>	
		<b>India</b>							
		Male	Local	Below 30 Yrs	11	5	2	18	
				31-50 Yrs	0	0	6	6	
				Above 50	1	0	0	1	
			Non Local	Below 30 Yrs	0	28	15	43	
				31-50 Yrs	0	2	24	26	
				Above 50	0	0	1	1	
		Female	Local	Below 30 Yrs	11	3	2	16	
				31-50 Yrs	0	0	2	2	
				Above 50	0	0	0	0	
			Non Local	Below 30 Yrs	0	15	11	26	
				31-50 Yrs	0	0	3	3	
				Above 50	0	0	0	0	
		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.					



LABOR/MANAGEMENT RELATIONS		
GRI 103: Management Approach 2016		<p>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.</p> <p>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</p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 82-85 (Human Rights)</p>
GRI 402: Labor/ Management Changes 2016	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.	All incidents pertaining to social aspects are categorized - negligible (category 1), minor (category 2), moderate (category 3), serious (category 4) and disastrous (category 5) and captured on a monthly basis.
OCCUPATIONAL HEALTH AND SAFETY		
GRI 103: Management Approach 2016		<p>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</p> <p><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></p> <p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 76-79 (Safety and Occupational Health)</p>
GRI 403: Occupational Health & Safety	403-1: Workers representation in formal joint management-worker health and safety committees.	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.
	403-2: Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work related fatalities.	<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 76-79 (Safety and Occupational Health)
		All definitions as per ICMM guidelines

		JHARSUGUDA		
		FY 20-21	FY 19-20	FY2018-19
<b>Employees</b>	Manjourns worked	78,01,152	84,14,752	86,94,968
	Lost Time Injuries	1	1	1
	Injury Rates (Lost Time Injury FR)	0.13	0.12	0.12
	Total Injuries	4	2	5
	Injury Rates (Total Recordable Injury FR)	0.51	0.24	0.58
	Lost Day Rate	3.72	30.19	33.12
	Work-Related Fatalities	0	0	0
<b>Contract Workers + Third Party</b>	Manjourns worked	2,60,38,040	2,56,27,723	2,45,85,005
	Lost Time Injuries	10	3	6
	Injury Rates (Lost Time Injury FR)	0.38	0.12	0.24
	Total Injuries	33	17	11
	Injury Rates (Total Recordable Injury FR)	1.27	0.66	0.45
	Lost Day Rate	27.58	3.63	26.60
	Work-Related Fatalities	0	1	0
		LANJIGARH		
		FY 20-21	FY 19-20	FY2018-19
<b>Employees</b>	Manjourns worked	12,87,896	13,39,688	17,89,400
	Lost Time Injuries	0	0	0
	Injury Rates (Lost Time Injury FR)	0.00	0.00	0.00
	Total Injuries	0	0	0
	Injury Rates (Total Recordable Injury FR)	0.00	0.00	0.00
	Lost Day Rate	0.00	0.00	0.00
	Work-Related Fatalities	0	0	0
<b>Contract Workers + Third Party</b>	Manjourns worked	86,13,794	89,44,530	99,55,160
	Lost Time Injuries	2	2	0
	Injury Rates (Lost Time Injury FR)	0.23	0.22	0.00
	Total Injuries	6	10	10
	Injury Rates (Total Recordable Injury FR)	0.70	1.12	1.00
	Lost Day Rate	2.90	12.63	0.00
	Work-Related Fatalities	1	0	0
		BALCO		
		FY 20-21	FY 19-20	FY2018-19
<b>Employees</b>	Manjourns worked	54,75,648	63,78,092	66,67,632
	Lost Time Injuries	2	2	2
	Injury Rates (Lost Time Injury FR)	0.37	0.31	0.30
	Total Injuries	3	5	5

			Injury Rates (Total Recordable Injury FR)	0.55	0.78	0.75
			Lost Day Rate	12.60	3.76	44.84
			Work-Related Fatalities	0	0	0
		<b>Contract Workers + Third Party</b>	Manjours worked	1,56,44,185	1,42,75,443	1,49,50,480
			Lost Time Injuries	4	13	6
			Injury Rates (Lost Time Injury FR)	0.26	0.91	0.40
			Total Injuries	17	19	11
			Injury Rates (Total Recordable Injury FR)	1.09	1.33	0.74
			Lost Day Rate	410.63	81.54	21.87
			Work-Related Fatalities	1	1	1
				<b>SECTOR</b>		
				<b>FY 20-21</b>	<b>FY 19-20</b>	<b>FY2018-19</b>
		<b>Employees</b>	Manjours worked	1,45,64,696	1,61,32,532	1,71,52,000
			Lost Time Injuries	3	3	3
			Injury Rates (Lost Time Injury FR)	0.21	0.19	0.17
			Total Injuries	7	7	10
			Injury Rates (Total Recordable Injury FR)	0.48	0.43	0.58
			Lost Day Rate	98.00	278.00	587.00
			Work-Related Fatalities	0	0	0
		<b>Contract Workers + Third Party</b>	Manjours worked	5,02,96,019	4,88,47,697	4,94,90,645
			Lost Time Injuries	16	18	12
			Injury Rates (Lost Time Injury FR)	0.32	0.37	0.24
			Total Injuries	56	46	32
			Injury Rates (Total Recordable Injury FR)	1.11	0.94	0.65
			Lost Day Rate	7167.00	1277.00	981.00
			Work-Related Fatalities	2	2	1
	403-3: Health and safety topics covered in formal agreements with trade unions	<p>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 &amp; safety.</p> <p>Beside this, certified Standing Orders of units also cover these topics.</p>				
<b>TRAINING AND EDUCATION</b>						
GRI 103: Management Approach 2016		<p>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.</p> <p><b>Aluminium, Vedanta Sustainability Report 2020-21:</b> Pages 90-91 (Talent management and succession planning)</p>				
GRI 404: Training and Education 2016	404-1: Average hours of training per year per employee.	<p><b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 93 (Keeping Safety Through Capacity Development)</p>				

	404-2: Programs for upgrading employee skills and transition assistance programs.	In line with our philosophy, continuous learning & capability building is imperative for an organization to grow. To cater to this need, our business entities provide training on technical skill building. We also conduct structured programs to assist employees for smooth transitioning from work to retirement. Some of the programs are on Computer Literacy programs, wealth management, tradesman skill building programs, certificates and diploma courses, retirement workshops & employee assistance programs.					
	404-3: Percentage of employees receiving regular performance and career development reviews.	100% of our employees receive regular performance reviews.					
<b>DIVERSITY AND EQUAL OPPORTUNITY</b>							
GRI 103: Management Approach 2016		Vedanta is an equal opportunity employer and promotes diversity. Diversity in Vedanta is gender based.  <b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 89 (Diversity and Equal Opportunity)					
GRI 405: Diversity and Equal Opportunity 2016	405-1: Diversity of governance bodies and employees.	<b>List different type of Board</b>	<b>Age group</b>			<b>Gender</b>	
			<b>less than 30 years</b>	<b>Between 30-50 years</b>	<b>Above 50 Years</b>	<b>Male</b>	<b>Female</b>
		Board of Directors	0	3	5	6	2
	Employees	2508	2923	228	4,991	668	
	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.					
<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. <b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Page 83 (Human Rights)					
GRI 406: Non-discrimination	406-1: Incidents of discrimination and corrective actions taken	Vedanta is an equal opportunity employer and does not discriminate based on race, religion, caste, gender, age, disability, HIV/AIDS status, and any other characteristic.  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.					
		<b>Sexual Harassment cases FY2020-21</b>					
		Number of sexual harassment cases opened					2
		Number of sexual harassment cases upheld and found correct					2
Number of sexual harassment cases closed					2		
<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.	<b>"Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 82-85 (Human Rights)  Similarly, our significant suppliers are generally the big & well reputed industry organizations like Coal India, SAIL and L&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."					
<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 Sustainable Development Report 2020-21:</b> Pages 82-85 (Human Rights)
<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 Sustainable Development Report 2020-21:</b> Pages 82-85 (Human Rights)
<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 Sustainable Development Report 2020-21:</b> Pages 92 (Security Training)
<b>RIGHTS OF INDIGENOUS PEOPLES</b>		
GRI 103: Management Approach 2016		Vedanta has developed Cultural Heritage, Land & Resettlement Management, and Indigenous People & Vulnerable Tribal Groups Standards, based on various international conventions, including ICMM 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.  <b>Aluminium, Vedanta Sustainable Development Report 2020-21: Page 84</b>
GRI 411: Rights of Indigenous Peoples	411-1: Incidents of violations involving rights of indigenous peoples	There were no violations involving the rights of indigenous peoples during the reporting year.
	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.	None of our operating mines are operating in or adjacent to indigenous people territory.
	G4-MM6: Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	No significant disputes relating to land use, customary rights of local communities and indigenous peoples were brought to our notice during the reporting year.

	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.
<b>HUMAN RIGHTS ASSESSMENT</b>		
GRI 103: Management Approach 2016		<b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 82-85 (Human Rights) Vedanta's Human Rights policy is the guiding document for our human rights practices.
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 Sustainable Development Report 2020-21:</b> Pages 82-85
	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 ESIA's 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. "
<b>LOCAL COMMUNITIES</b>		
GRI 103: Management Approach 2016		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.  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.  <b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Page 98 (Community Welfare)
GRI 413: Local Communities 2016	413-1: Operations with local community engagement, impact assessments, and development programs	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. 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.  Public disclosure is a mandated part of the EIAs and SIAs.  <b>Aluminium, Vedanta Sustainable Development Report 2020-21:</b> Pages 98 (Community Welfare)

SUPPLIER SOCIAL ASSESSMENT		
GRI 103: Management Approach 2016		Vedanta's Supplier Code of Conduct (SCOC) serves at 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	
PUBLIC POLICY		
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.
CUSTOMER HEALTH AND SAFETY		
GRI 416: Customer health and safety	416-1: Assessment of the health and safety impacts of product and service categories	
ARTISANAL AND SMALL-SCALE MINING		
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
RESETTLEMENT		
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 ICMM 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 Sustainable Development Report 2020-21:</b> Pages 83-84 (Land Acquisition and Resettlement)
MATERIAL ASPECT : CLOSURE PLANNING		
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.



### ALUMINIUM, VEDANTA LIMITED

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