



Building Lasting
Impacts
Sustaining Growth
Restoring Balance

Theme of the Report

Building Lasting Impacts: Sustaining Growth, Restoring Balance

At Vedanta, we believe that the legacy we leave behind is the truest measure of our success—not only in the prosperity we generate but, in the ecosystems, which we help restore and preserve for future generations. This year’s TNFD report theme, “Building Lasting Impacts: Sustaining Growth, Restoring Balance,” captures the essence of our commitment to responsible business—one that protects and regenerates nature while continuing to power economic and social progress.

The theme stands on three interlinked pillars:



Building Lasting Impacts: symbolising our aspiration to create enduring, measurable contributions to the planet and people through long-term ecological restoration, community development and nature stewardship.



Sustaining Growth reflects our resolve to build a nature-positive business model that thrives by decoupling economic growth from environmental degradation, creating resilience and value across the enterprise..



Restoring Balance represents our commitment to reversing ecosystem degradation, preserving biodiversity and ensuring that our operations co-exist in harmony with natural systems.

We recognise the intrinsic relationship between nature and our business. Our operations depend on healthy ecosystems, and we are committed to managing our nature-related dependencies and impacts with scientific rigour and care. We are embedding environmental accountability into the core of our business processes by:

- Implementation of site-specific Biodiversity Management Plans (BMPs)
- Following the (International Council on Mining and Metals) ICMM mitigation hierarchy
- Pursuing No Net Loss of biodiversity

Our strategy is aligned with India’s National Biodiversity Strategy and Action Plan and contribute to the global goals set under the Kunming-Montreal Global Biodiversity Framework (KMGBF). Our restoration activities, afforestation programmes, sustainable water management practices and protection of critical habitats reflect our alignment with the national vision.

The foundational principles of our organisation ensure biodiversity considerations are not peripheral but central to business decision-making and aligned with evolving global standards including the Science-Based Targets Network (SBTN), Global Reporting Initiative (GRI) and the ICMM, reflecting our commitment to progressive, nature-positive transformation by being anchored in our Biodiversity Policy, Sustainability Framework, Supplier Code of Conduct and compliant to the International Finance Corporation (IFC) Performance Standard 6.

The essence of “Building Lasting Impacts: Sustaining Growth, Restoring Balance” lies in our belief that environmental restoration and economic development are not opposing forces—they are twin engines of true sustainability. This theme is more than a headline—it is a guiding philosophy that defines our journey to a nature-positive future.

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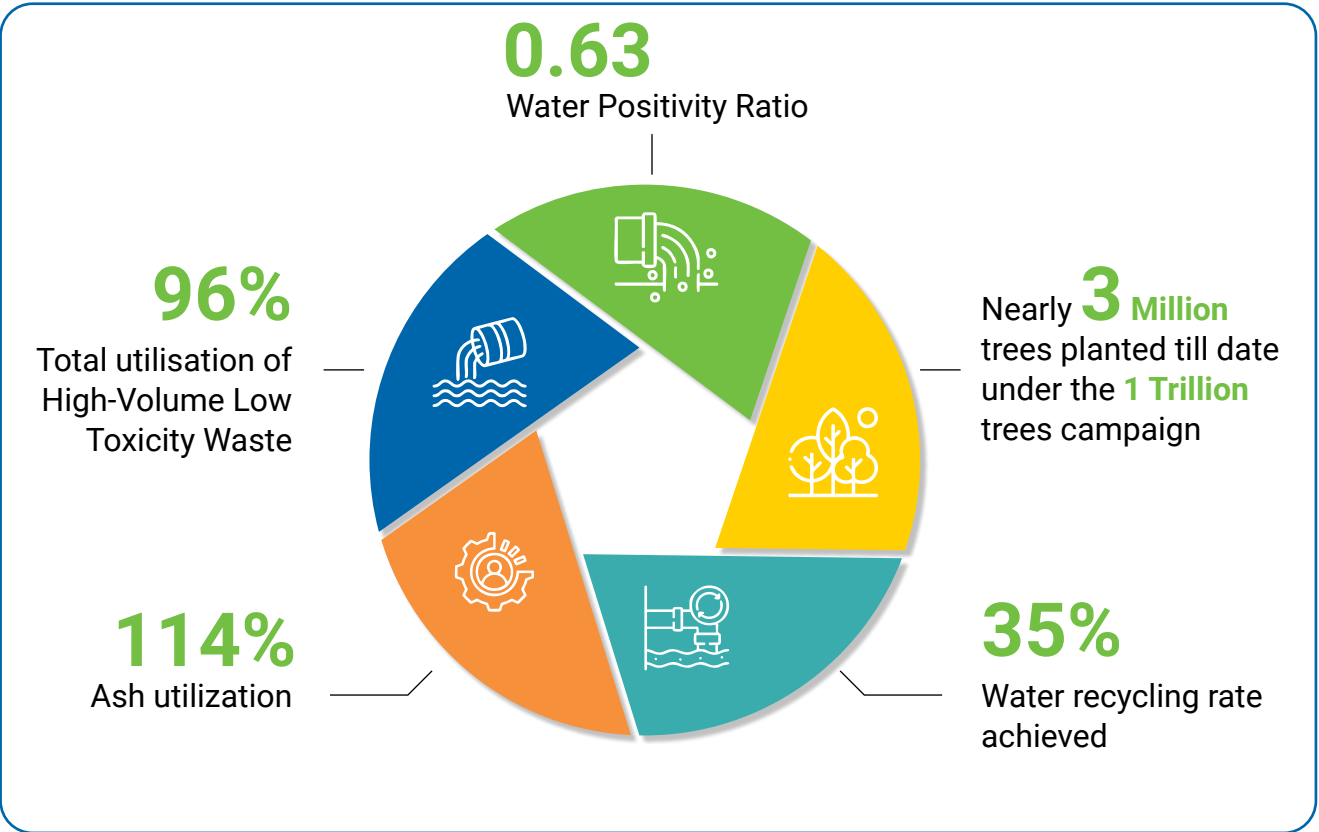
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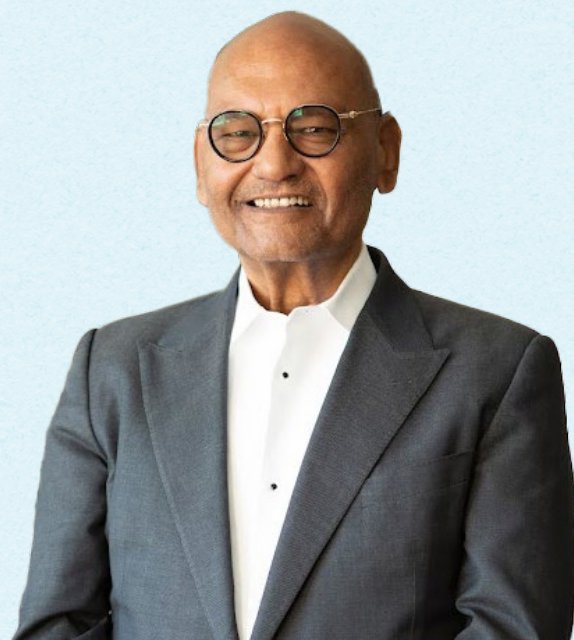
Acronyms Table

Acronym	Full Form
BSF	Border Security Force
BMPs	Biodiversity Management Plans
BRSR	Business Responsibility and Sustainability Report
CBAM	Carbon Border Adjustment Mechanism
CCTS	Carbon Credit Trading Scheme
CCUS	Carbon Capture, Utilization, and Storage
CII	Confederation of Indian Industry
CoPs	Communities of Practice
CPCB	Central Pollution Control Board
CPP	Captive Power Plant
CRM	Critical Risk Management
CR	Critically Endangered
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
EHS	Environmental, Health, and Safety
EHIA	Environmental and Social Impact Assessment
EN	Endangered
ENCORE	Exploring Natural Capital Opportunities, Risks and Exposure
ESG	Environmental, Social, and Governance
ESL	Electrosteel Steels Limited
ETS	Emissions Trading Schemes
FICCI	Federation of Indian Chambers of Commerce and Industry
FIMI	Federation of Indian Mineral Industries
FPIC	Free, Prior and Informed Consent
FY	Fiscal Year
GEI	Greenhouse Gas Emission Intensity
GHG	Greenhouse Gas
GISTM	Global Industry Standard on Tailings Management
GRI	Global Reporting Initiative
HSE	Health, Safety, Environment
HZL	Hindustan Zinc Limited
IBA	Important Bird Area
IBBI	India Business & Biodiversity Initiative
IBAT	Integrated Biodiversity Assessment Tool
ICMM	International Council on Mining and Metals
IDRO	Impacts, Dependencies, Risks, and Opportunities
IFC	International Finance Corporation
KBA	Key Biodiversity Areas
KMGBF	Kunming-Montreal Global Biodiversity Framework

Acronym	Full Form
KPIs	Key Performance Indicators
LCA	Lifecycle Assessment
LEAP	Locate, Evaluate, Assess, Prepare
LNG	Liquefied Natural Gas
NBSAP	National Biodiversity Strategy and Action Plan
NBT	National Biodiversity Targets
NGFS	Network for Greening the Financial System
NPA	National Protected Areas
NTFPs	Non-Timber Forest Products
OECD	Organisation for Economic Co-operation and Development
PCCF	Principal Chief Conservator of Forests
PPC	Pollution Prevention and Control
R&D	Research and Development
RCP	Representative Concentration Pathways
RF	Reserve Forest
RSPCB	Rajasthan State Pollution Control Board
SBTN	Science-Based Targets Network
SASB	Sustainability Accounting Standards Board
SC	Sterlite Copper
SDGs	Sustainable Development Goals
STAR-R	Species Threat Abatement and Restoration - Restoration
STAR-T	Species Threat Abatement and Restoration - Threat
TCFD	Taskforce on Climate-related Financial Disclosures
TNFD	Taskforce on Nature-related Financial Disclosures
TPP	Thermal Power Plant
TSFs	Tailings Storage Facilities
TSPL	Talwandi Sabo Power Limited
UNGC	United Nations Global Compact
VAB	Vedanta Value Added Business
VAL	Vedanta Aluminium Limited
VSAP	Vedanta Sustainability Assurance Process
VSF	Vedanta Sustainability Framework
VTGs	Vulnerable Tribal Groups
VZI	Vedanta Zinc International
WLCP	Wildlife Conservation Plan
WLS	Wildlife Sanctuary
WRI	World Resources Institute
WWF	World Wide Fund for Nature
ZLD	Zero Liquid Discharge

Key Highlights FY 2025





Message from our Chairman

Dear Stakeholders,

As India's largest and most diversified natural resources company, Vedanta is committed to advancing sustainable growth while fulfilling our responsibility to care for the environment. As we embark on our second year of TNFD reporting, we continue to integrate nature-related considerations deeply within our corporate strategy. This commitment is underscored by our comprehensive efforts to assess, manage, and transparently disclose the risks and opportunities related to biodiversity, water resources, and land integrity inherent in our operations.

Our portfolio of metals—copper, aluminium, zinc, and steel—forms the backbone of India's economic development and plays a critical role in the global transition to a low-carbon future. While we are deeply committed to accelerating this transition, we acknowledge the environmental challenges associated with the extraction and processing of these essential materials. We fully recognize the potential impacts on fragile ecosystems, including biodiversity loss and the depletion of vital water resources. As such, we have adopted a science-driven approach to mitigate these effects, ensuring that our operations contribute positively to the long-term health of the ecosystems upon which we depend.

Through robust biodiversity screenings at all key sites, we are prioritizing environmental risk management, focusing on habitat restoration and the conservation of vital species. We are partnering with local and regional stakeholders to implement large-scale reforestation projects, develop buffer zones, and restore degraded ecosystems, including wetlands and mangroves. These actions are critical as

we work towards our aspirational goal of no net loss of biodiversity and critical habitats. As we continue to scale our operations to meet the growing demand for critical metals, we remain committed to achieving our sustainable development goals. Our targets for FY 2025 include reviewing biodiversity risks at all locations, assessing the feasibility of No Net Loss or Net Positive Impact commitments, and contributing to the global 1 Trillion Trees campaign. To date, we have successfully planted 2.9 million trees as part of our commitment, with a target of 7 million trees by 2030.

Biodiversity and natural capital are the bedrock of all economic activity and life itself. At Vedanta, we understand that economic development and ecological regeneration must progress in parallel. We believe that our continued growth must contribute to the regeneration of the world's ecosystems, not just sustain them. This responsibility is central to Vedanta's vision as a responsible corporate citizen, and it is one we embrace with the utmost dedication.

We sincerely thank you for your continued trust and partnership as we work towards a more resilient, nature-positive future.

Warm regards,

Anil Agarwal
Chairman
Vedanta Limited



Leadership Message

Dear Stakeholders,

At Vedanta, we recognise that sustainable growth must be underpinned with a deep sense of responsibility. As stewards of the environment, we are acutely aware that the decisions we take today will define the ecological legacy we leave behind. Our pursuit of a nature-positive future is not merely a commitment - it is a responsibility we uphold with the highest level of integrity and purpose.

It gives me great pride to share our second Taskforce on Nature-Related Financial Disclosures (TNFD) report, which reflects our focus on biodiversity, water stewardship, and circularity. This year, we have expanded our biodiversity and water-risk assessments to include all critical sites across our portfolio. Our approach is informed by science and guided by the principles of the mitigation hierarchy—first avoiding and minimizing environmental impacts, then restoring affected areas, and offsetting residual effects. These steps are crucial as we work toward our goal of no net loss of biodiversity and critical habitats.

Our commitment to circularity is the cornerstone of our sustainability initiatives. We are rethinking the way we use

resources, reduce waste, and design operations that are in harmony with nature. These steps are part of a larger vision, which is to ensure that our business contributes to the well-being of our ecosystems, communities, and future generations.

As you read through this report, I encourage each one of you to see it as a reflection of our values, a call to action and a reminder that real progress is only possible when we protect Mother Earth. This report symbolizes the dedication, innovation, and resilience with which we undertake our ambitious goals that will lead us to our Net Zero target by 2050 or sooner.

Let us stay united in our mission to protect, restore, and regenerate - for a better tomorrow.

Regards,

Priya Agarwal Hebbbar
Non-Executive Director



Note from Executive Director

Dear Stakeholders,

At Vedanta, sustainability is at the heart of our strategy, and we are committed to integrating nature-related risks and opportunities into our operations. As we advance our second year of TNFD reporting, we have continued to enhance our risk management framework to address the environmental challenges associated with our business. We recognize that the extraction and processing of essential metals, such as copper and zinc, can have significant impacts on biodiversity, water resources, and land use. Therefore, our approach is grounded in science, ensuring that our operations are aligned with the principles of responsible stewardship.

This year, we have completed biodiversity screenings across our priority sites, identifying key areas where we can mitigate potential risks. Our efforts include habitat restoration initiatives, large-scale afforestation programs, and conservation projects targeting endangered species and ecosystems such as wetlands and mangroves. These actions are critical to achieving our ambitious goal of no net loss of biodiversity.

Water stewardship remains a key focus of our sustainability efforts. We have made significant strides in increasing our water recycling capabilities, with 55.70% of our total water consumption being recycled. In line with this, our water positivity ratio has risen to 0.63, demonstrating our

commitment to restoring more water than we withdraw. Additionally, our focus on rainwater harvesting, coupled with the efficient reuse of water, continues to reduce our operational water footprint.

Our commitment to circularity also reflects in our waste management practices. This year, we have recycled and reused a total of 437,616 metric tonnes of waste, underscoring our dedication to minimizing waste and optimizing resource usage. Furthermore, our initiatives, such as the full utilization of fly ash in our power plants, are a testament to how we are reducing environmental impact and promoting sustainability across our operations. As we continue to scale our operations to meet the rising global demand for critical metals, we remain resolute in ensuring that our operations not only meet business objectives but also contribute positively to the environment. The integration of nature-related goals into our business strategy demonstrates our commitment to a resilient, nature-positive future.

Warm regards,

Arun Mishra
Executive Director

About the Report



Our Approach to Reporting

We are pleased to present our second TNFD report, reinforcing our sustained commitment to understanding, mitigating, and managing nature-related risks and opportunities. We use the TNFD framework as a vital tool to systematically assess, disclose, and integrate nature-related Impacts, Dependencies, Risks, and Opportunities (IDRO) into our decision-making processes. It provides a structured approach across four fundamental areas: Governance, Strategy, Risk Management, and Metrics & Targets. We establish governance mechanisms, incorporate nature-related considerations into our strategic planning, develop robust risk assessment methodologies, and disclose quantitative and qualitative performance indicators. Furthermore, the TNFD framework underscores the necessity of leveraging geospatial data, scenario analysis, and financial assessments to evaluate the dependencies and impacts of nature on business operations. It also aligns closely with established frameworks such as International Financial Reporting Standards, Standard S2: Climate-related Disclosures (IFRS S2), ensuring consistency in sustainability reporting and risk management.



Reporting Scope and Boundary

Vedanta Limited, alongside its 10 key subsidiaries and 42 operational sites spanning India, South Africa, and the UAE, is encompassed within the scope of this report. The disclosures presented are consolidated to represent the collective performance of the Vedanta Group, which includes Vedanta Limited, its subsidiaries, associates, and joint ventures. You can find further details on these entities in point no. 23 of Section A of our Business Responsibility and Sustainability Report (BRSR) and on page 323 of our Integrated Report and Annual Accounts for FY 2024-25.

In this reporting cycle, we have conducted an initial assessment of our value chain in accordance with TNFD guidelines. Simultaneously, we are carrying out an extensive evaluation of our supply chain. The insights gained from this analysis will be integrated into our forthcoming reporting cycle to further enhance the comprehensiveness and transparency of our disclosures.



Reporting Guidelines and Standards

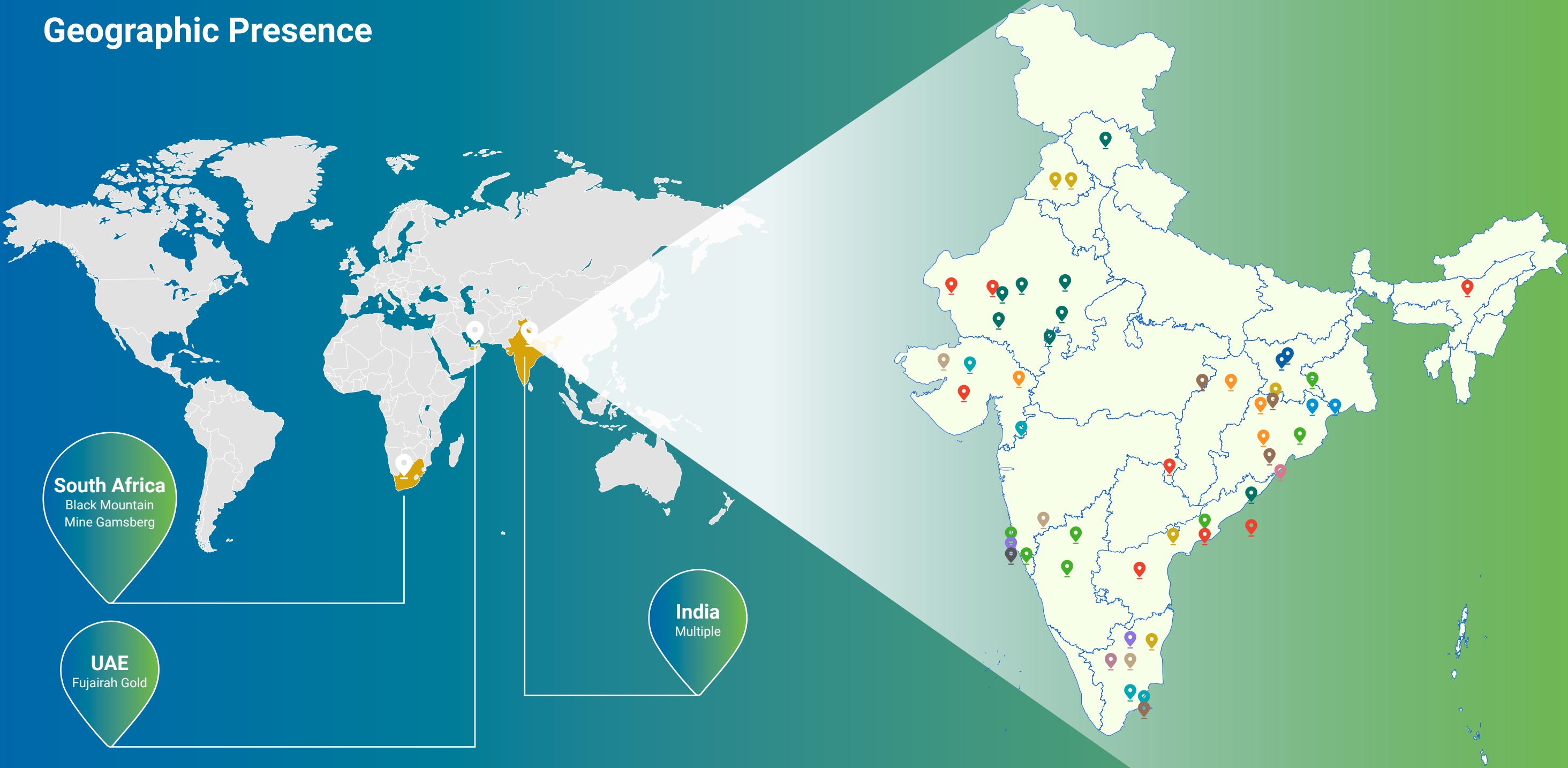
The report aligns with global sustainability disclosure frameworks and regulatory expectations, reinforcing our dedication to transparency and accountability in environmental stewardship. Our TNFD disclosures on GHG footprint, water footprint and the details on waste management for FY 2025 align with our Climate Action Report for FY 2025.

The analyses incorporate data reported in alignment with GRI, SASB, IFRS S2 and ICMM frameworks for FY 2025. This

includes site-level data on water, biodiversity, emissions, pollutants, waste and conservation efforts. Secondary data from public databases and TNFD-recommended tools are used to further support the assessment. These include ENCORE, the Biodiversity Risk Filter, WRI Aqueduct 3.0, STAR-T and STAR-R.

For inquiries, please contact esg@vedanta.co.in.

Geographic Presence



	Copper	
	Aluminium	
	Power	
	Iron Ore	

	Zinc	
	Oil & Gas	
	Captive Power Plant	
	Multiple	

	Steel	
	MetCoke	
	Ferro Alloys	
	Cement	

	Nickel	
	Port	

01 Introduction

Introduction

About Vedanta

We, Vedanta Limited, a subsidiary of Vedanta Resources Limited, are one of the world’s largest natural resources companies, with operations across India, South Africa and Namibia. Our portfolio spans zinc-lead-silver, iron ore, steel, aluminium, copper, nickel, power and oil & gas, securing a leading position in key industrial sectors. With a focus on growth and diversification, we have expanded into semiconductors, ferrochrome, display glass and renewables, strengthening our role in India’s industrial landscape and global markets.

Our fully integrated value chain covers exploration, asset development, extraction, processing, and value addition, ensuring efficiency and cost leadership across our operations. We refine metals and generate captive power at our world-class facilities, supporting seamless production and supply. Through brownfield expansions and greenfield investments, we enhance our resource base, extend the lifespan of our assets and optimise production. Our strong financial discipline, operational excellence and track record of executing large-scale projects on time and within budget reinforce our position as a market leader. As we continue to grow, we remain committed to driving resource security and economic progress, supporting industries that are vital to infrastructure development and manufacturing across the world.



Commitment to Nature and Biodiversity



At Vedanta, we recognise that economic stability depends on environmental stewardship. As a natural resource-driven organisation, we are committed to minimising our ecological footprint while contributing to biodiversity conservation. Sustainability is integral to our operations, ensuring our resource efficiency and environmental integrity.

In FY 2025, we refined our approach to nature-related risk and impact management, by adopting and aligning our practices with evolving global standard and frameworks. Our commitment is reflected in corporate policies, governance frameworks, materiality assessments, and biodiversity management practices – ensuring biodiversity risks and opportunities are systematically addressed.

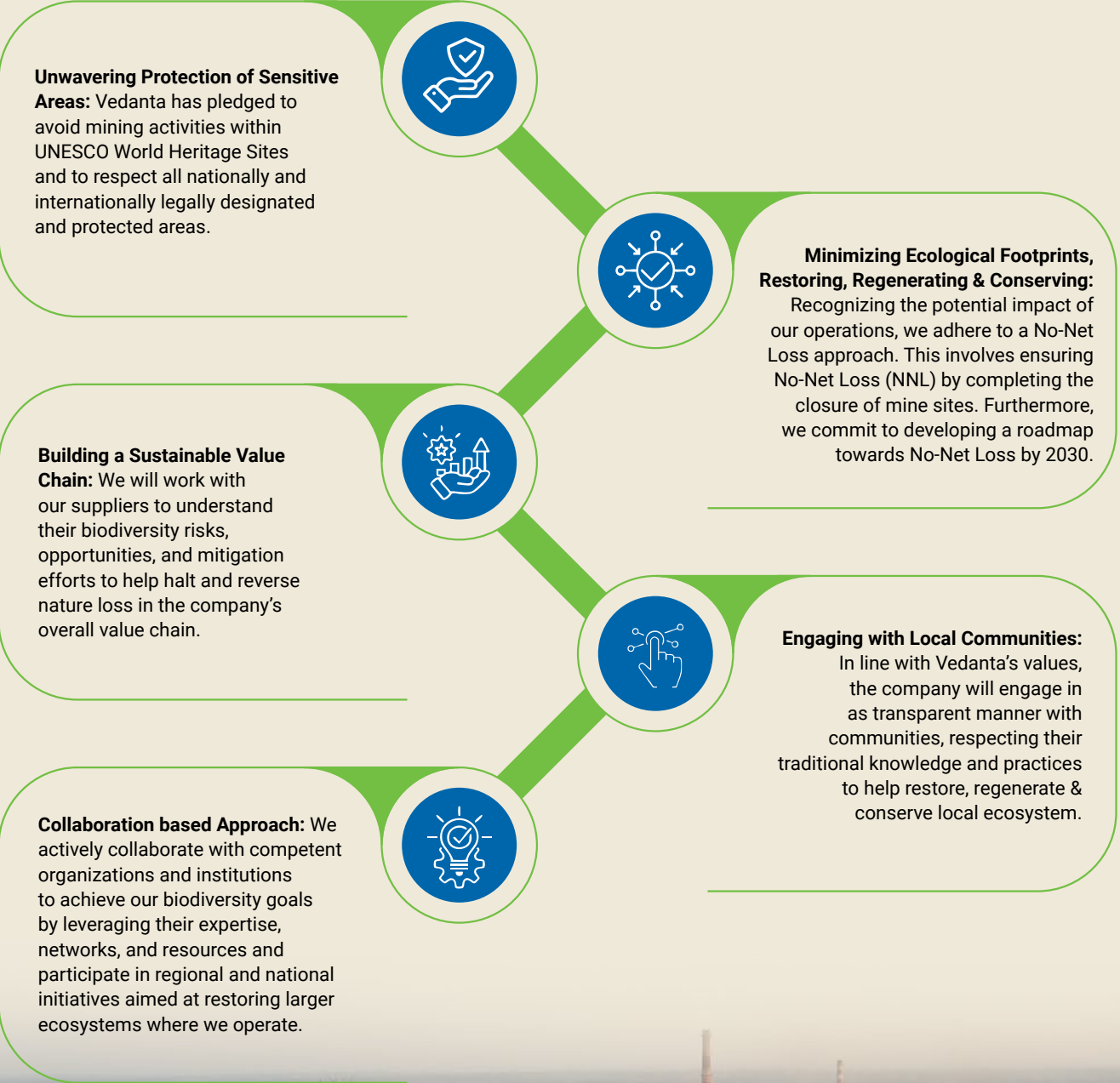
We prioritise reducing our resource dependency, adopting low-impact technologies, and integrating conservation efforts into our business strategies. Our biodiversity policy follows the mitigation hierarchy to prevent, minimise, and offset risks, aiming for No Net Loss at project sites through Biodiversity Management Plans (BMPs) aligned with international best practices, including ICMM guidelines.

Aligned with global frameworks such as TNFD, GRI, CDP, and the Kunming-Montreal Protocol—and in line with India’s National Biodiversity Strategy and Action Plan (NBSAP), particularly Target 15—we actively engage with communities, leveraging their knowledge for conservation efforts. Collaboration with scientific institutions and environmental organisations strengthens our biodiversity

initiatives and contributes to regional and national restoration projects.

Committed to transparency, we disclose nature-related risks and aim to track progress towards achieving No Net Loss. Through these actions, we drive meaningful environmental impact, securing ecosystem resilience, community well-being, and sustainable business growth.

Our Commitments



Material Issues

In FY 2025, we conducted a Double Materiality Assessment (DMA) to understand how Environmental, Social and Governance (ESG) issues affect our financial performance and how our operations impact the economy, environment and society. Through this dual-lens approach of financial materiality (outside-in view) and impact materiality (inside-out view), we were able to conduct a well-rounded evaluation of sustainability topics. Our methodology involved an extensive engagement with nearly 1,600 internal and external stakeholders to gather insights on perceived positive and negative impacts, as well as financial risks and opportunities linked to each material issue.

The output was a double materiality matrix that mapped ESG topics based on their priority level—**high, medium** or **low**—

and categorised them into three potential financial impact bands: **less than INR 10 crore per year, between INR 10 crore and INR 100 crore per year, and greater than INR 100 crore per year**. This approach enabled us to link stakeholder concerns with quantifiable business implications. Compared to our 2022 assessment, topics such as **Tailings Management and Biodiversity and Ecosystems** have moved into the higher priority zones, reflecting a sharper focus on nature-related risks in our evolving risk landscape.

Detailed definitions of these material topics and their impact can be found in the Materiality Assessment section of the Vedanta Sustainability Report FY 2025.

Priority Zone	Topic	TNFD Driver of Nature Change
High	Air Emissions and Quality	Pollution/pollution removal
	Climate Change and Energy Transition	Climate Change
	Water and Wastewater Management	Pollution/pollution removal
	Community Engagement and Development	Resource Use and Replenishment
	Tailings Management	Pollution/Pollution removal
Medium	Biodiversity and Ecosystems	Land use change Invasive alien species introduction/removal
	Circularity and Waste Management	Pollution/pollution removal
	Indigenous People and Cultural Heritage	Resource Use and Replenishment
	Decommissioning, Closure and Rehabilitation	Land/ Freshwater/ Ocean use change Resource Use and Replenishment
Low	Artisanal and Small-Scale Mining	Resource use and Replenishment

02 Governance



Board Oversight of Nature-Related Dependencies, Impacts, Risks, and Opportunities

For a diverse and distributed organization like ours, effective ESG implementation requires a well-entrenched, performance-based execution mechanism. The Board ESG Committee is responsible for driving the Group's ESG agenda and monitoring the implementation of strategies at the Group level. The strategic directives of this committee are incorporated into the policies of the Vedanta Sustainability Framework (VSF), ensuring a structured approach to sustainability. To evaluate ESG performance both at the Group level and across individual business units (BUs), we rely on the Vedanta Sustainability Assurance Process (VSAP).

Further details related to oversight on nature-related risks can be found in Chapter 4, under the Risk Framework and Monitoring Mechanisms section.

Nature-Related Risk Management Approach

We have adopted an approach in alignment with the TNFD LEAP (Locate, Evaluate, Assess, Prepare) framework. We utilize the Integrated Biodiversity Assessment Tool (IBAT) to locate sites near high-biodiversity areas, while the ENCORE tool is used to evaluate dependencies and impacts on ecosystem services such as water provision and flood control. The WWF Biodiversity and Water Risk Filters further support risk assessment, particularly in water-stressed areas. Based on these assessments, we prepare and implement risk management strategies focused on water efficiency, climate resilience, biodiversity conservation and low-carbon transition initiatives.



Board Consideration of Nature-Related Issues in Key Decision-Making

Strategy, Risk Management Policies and Business Plans

The Committee of Directors (COD), comprising Executive Directors and an Independent Director, supports the Board by reviewing proposals related to borrowing and investments. The Audit and Risk Management Committee, along with the Sustainability Committee, evaluates sustainability-related risks to ensure ESG considerations are embedded within strategic decision-making. We have also launched environmentally friendly aluminium and zinc products such as Restora, Restora Ultra and Eco Zen, which focus on reducing greenhouse gas emissions. To ensure strategic alignment, climate risks are integrated into the risk register, facilitating continuous monitoring and mitigation.

Major Capital Expenditures, Acquisitions and Divestitures

Biodiversity considerations are embedded within the governance mechanisms that oversee acquisitions, mergers, divestitures and major capital expenditures. This ensures that environmental factors are systematically integrated into our decision-making processes, helping to mitigate risks while upholding sustainability commitments.

Performance Monitoring and Target Oversight

The Board receives quarterly progress updates on climate change targets through comprehensive management reports. Oversight of performance tracking and implementation is led by the ESG Committee, with support from ESG ManCom, the Group ExCo and the Group HSE & Sustainability Function. Among the thirteen Communities of Practice (CoPs), three—Biodiversity, Water and Climate Change—play a pivotal role in embedding ESG objectives across various operational areas, fostering a cohesive and integrated approach. Additionally, the Board conducts regular reviews of significant risks and mitigation strategies, ensuring adherence to internal control systems and regulatory frameworks while driving continuous improvement in sustainability performance.

Board Oversight of Sustainability Reporting and Risk Management

The Board ensures effective sustainability reporting through multiple mechanisms. Regular quarterly updates provide insights into climate target progress, while external assurance engagements with S. R. Batliboi & Co. LLP offer independent third-party validation of key sustainability KPIs. The Audit and Risk Management Committee plays a central role in risk identification, assessment and the approval of necessary remedial actions. Additionally, internal audits, managed by the Management Assurance Services (MAS), focus on continuous improvements in internal control mechanisms.⁶

Key priorities include workforce safety, decarbonization, tailings facility management and environmental compliance. Environmental issues are systematically integrated into governance mechanisms, covering areas such as budgeting, strategy development, compliance monitoring and acquisitions. We also collaborate with external organizations such as IUCN, national universities and research institutions to enhance our biodiversity management initiatives.⁷

Incorporation of Nature-Related Metrics into Remuneration Policies

We have integrated sustainability-linked performance criteria into our executive remuneration structure to reinforce accountability for long-term environmental and safety outcomes. Under the Long-Term Incentive Plan (LTIP), one-third of the vesting is linked to the achievement of long-term strategic sustainability objectives. LTIP grants are determined based on 40% weightage to sustained business performance and 60% to individual performance, with performance against predetermined carbon reduction targets forming up to 15% of the business performance score. These targets include the reduction of GHG emissions intensity by 2025 and absolute emissions by 2030.

To further institutionalise safety, our LTIP includes a mechanism that positively rewards efforts towards achieving zero fatalities across the group. Conversely, any fatality within the group acts as a negative multiplier reducing the annual bonus of all employees including Executive Directors associated with the concerned entity. This dual mechanism ensures that both climate and safety considerations are embedded into long-term value creation and executive accountability.



Assignment of Nature-Related Responsibilities to Management-Level Positions and Committees

We have established a structured governance framework to ensure the effective execution and oversight of nature-related responsibilities. The Group CEO, Group Executive Committee (ExCo), and ESG Management Committee (ManCom) hold the highest level of responsibility and accountability for nature policies, commitments, and targets. These management positions and committees report directly to the Board ESG Committee, ensuring a clear line of accountability for assessing and managing nature-related dependencies, impacts, risks, and opportunities.

Role of the Board

- The Board ESG Committee is responsible for overseeing nature-related risks and commitments as mandated by the Vedanta Board.
- The Board receives regular updates from management-level committees on sustainability progress, risk exposure, and regulatory compliance.
- Ensures that nature-related issues are integrated into governance mechanisms, including investment decisions, risk management policies, and sustainability strategies.

Responsibilities of the Board ESG Committee

- Review and recommend improvements to governance structures for water, carbon, and biodiversity management.
- Advise the Board on sustainability policies and management systems.
- Oversee the company's sustainability performance based on the VSF, which includes nature-related policies and standards.
- Ensure effective implementation of governance, advocacy, and public relations mechanisms related to ESG, climate change, and biodiversity.
- Develop initiatives to embed a sustainability culture across all levels of the organization.
- Assess emerging sustainability, nature, and climate risks, guiding management on avoidance and mitigation strategies for long-term resilience.
- Advise the Board on legal and international compliance requirements regarding sustainability and nature-related governance.





Management-Level Assignment of Nature-Related Responsibilities



This tiered governance structure ensures that nature-related risks, dependencies, and opportunities are effectively assessed, managed and integrated into our broader sustainability

strategy. By embedding nature considerations into executive decision-making, we have strengthened our ESG governance, risk mitigation, and long-term sustainability commitments.



Monitoring Mechanisms for Nature-Related Dependencies, Impacts, Risks, and Opportunities

We have established a comprehensive monitoring framework to ensure that the management is continuously informed about nature-related dependencies, impacts, risks and opportunities. This framework integrates audits, performance indicators, advanced technology solutions, and real-time data collection methods to provide a clear and actionable view of our environmental performance.

Regular internal and external audits play a crucial role in assessing environmental performance and compliance. These audits include ISO 14001, Global Reporting Initiative (GRI) standards, and the Vedanta Sustainability Assurance Process (VSAP), ensuring that all business units (BUs) adhere to sustainability best practices. Specific areas, such as Tailings Storage Facilities (TSFs), undergo routine audits and inspections, with additional external assurance reviews of their operational and life-of-facility plans. These monitoring mechanisms enable us to proactively identify risks, address compliance gaps, and enhance nature-positive outcomes.

We track a range of Key Performance Indicators (KPIs) to measure biodiversity and water-related impacts. Biodiversity KPIs focus on metrics such as habitat restoration and the number of saplings planted, while water-related KPIs track key indicators including total freshwater consumption, water recycling rates, and the generation of water credits. These indicators are monitored across all BUs and are independently audited annually through the VSAP, ensuring that biodiversity and ESG-related performance metrics are systematically reviewed and improved.

To enhance tracking and compliance, we have deployed the Enablon software platform, a sophisticated environmental, health, and safety (EHS) management system. This platform allows for the seamless tracking of environmental incidents, sustainability performance, and compliance metrics across all BUs. By leveraging advanced monitoring capabilities, we have ensured, nature-related risks and

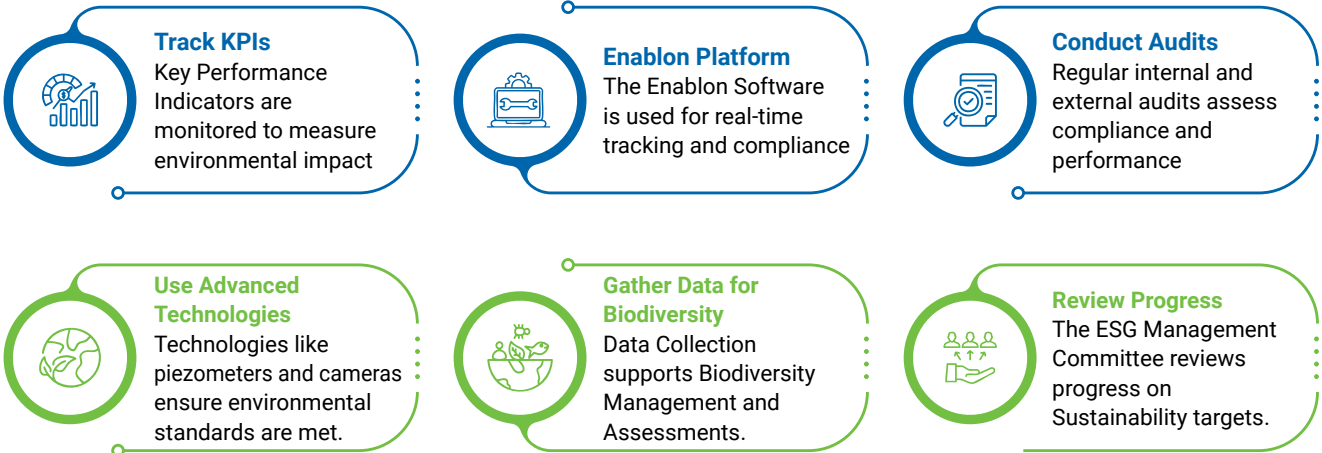
impacts are swiftly identified and addressed, fostering proactive risk management and regulatory adherence.

Our data collection methods vary across business units, utilizing advanced monitoring technologies to enhance environmental oversight. All sites—including HZL and Cairn—employ real-time monitoring systems, PTZ cameras, and piezometers; at non-ZLD locations, we rely on piezometer readings before any discharge to ensure full compliance with environmental standards. Additionally, live data from these monitoring activities is directly linked to the Central Pollution Control Board (CPCB) server, enabling external regulatory oversight and enhanced transparency.

The frequency of monitoring depends on the environmental parameter being tracked. Water withdrawals, for instance, are measured daily using flow meters, providing continuous oversight of water consumption. Biodiversity performance indicators undergo annual independent audits to ensure alignment with sustainability commitments, while climate-related updates are reported to the Board on a quarterly basis. The ESG Management Committee meets fortnightly, ensuring that progress on nature-related targets is reviewed regularly and corrective actions are taken as necessary.

Our monitoring system is further strengthened through data collection processes that support biodiversity and environmental impact assessments. We systematically gather data on the implementation of biodiversity management plans (BMPs), tracking both activities and their outcomes. These data-driven insights help evaluate the effectiveness of conservation efforts, the success of habitat restoration programs, and the overall impact of nature-related initiatives. By embedding robust monitoring and data collection mechanisms across our operations, we ensure that our sustainability strategy remains data-driven, transparent, and aligned with global environmental standards.

Vedanta’s Environmental Monitoring Framework



Vedanta's Environmental Monitoring Framework



Frequency of Communication of Performance and Progress in Priority Locations to Management

Implementation of a structured communication framework ensures that updates on performance and progress in priority locations are regularly conveyed to management. The Corporate Health, Safety, Environment (HSE) and Sustainability Department is responsible for overseeing and reporting on key indicators that assess the effectiveness of nature-related initiatives, particularly those aimed at achieving No Net Loss (NNL) at specific sites.

The frequency of monitoring varies, with assessments conducted either half-yearly or annually, ensuring that long-term environmental outcomes are effectively tracked.

Management is regularly updated on progress in priority locations through structured reporting cycles. These updates ensure that senior leadership remains informed about the effectiveness of biodiversity conservation efforts, habitat restoration projects, and other nature-positive interventions. By maintaining a consistent flow of performance data, we establish data-driven decision-making, proactive risk mitigation, and the continuous improvement of sustainability initiatives across our operations.



Policies, Standards and Sustainability Framework

Nature-related issues pose significant risks to our business, impacting supply chains, regulatory compliance, and our social license to operate. The interconnectedness of climate, water, and biodiversity underscores the need for integrated environmental strategies, as disruptions in one area often affect others, compromising ecosystem health and resilience.

To address these risks, we have embedded comprehensive environmental strategies into our business model, including site-specific Biodiversity Management Plans (BMPs) and Water Management Plans, aligned with international best practices such as those from the International Council on Mining and Metals (ICMM). As a member of the United Nations Global Compact (UNGC), we are committed to

adhering to the International Finance Corporation's (IFC) Performance Standard 6 on Biodiversity Conservation.

Our approach is guided by the Vedanta Sustainability Framework (VSF), which integrates sustainability across operations and decision-making. The VSF aligns with global frameworks like the OECD, UNGC, and the UN Sustainable Development Goals (SDGs). It encompasses 9 key sustainability policies, including those on Human Rights, Biodiversity, Water Management, and Energy and Carbon. We ensure consistent application across all sites through 92 Standards and Guidance Notes, supported by robust monitoring mechanisms, including the VSAP audits and Executive Committee (ExCo) oversight. Further details are available in the ESG Governance section of our Integrated Report.

Vedanta Sustainability Framework



Human Rights and Engagement with Local Communities

Human Rights Policy

At Vedanta Limited, we are committed to respecting and protecting the rights and dignity of all our stakeholders, with a particular focus on Indigenous Peoples, local communities and other affected groups. Our [Human Rights Policy](#) applies across the entire project lifecycle and value chain and guides how we assess and manage nature-related dependencies, risks, impacts and opportunities.

We promote fair labour practices, inclusive and safe workplaces and strictly prohibit any form of forced or child labour. We engage transparently with communities, ensure access to grievance mechanisms and work closely with our suppliers and business partners to uphold human rights standards across our operations.

Our policy is grounded in internationally recognised frameworks, including:

- UN Guiding Principles of Business and Human Rights (the "Ruggie Principles")
- Universal Declaration of Human Rights (UDHR)
- International Labour Organization Declaration on Fundamental Principles and Rights at Work
- United Nations Declaration on Human Rights



Our Approach to Nature Related Policy Advocacy and Lobbying

Vedanta engages in policy advocacy through a structured and transparent approach that aligns with its commitment to sustainable resource management and biodiversity conservation. As a member of the India Business & Biodiversity Initiative (IBBI)—a platform anchored by the Confederation of Indian Industry (CII) and supported by the Ministry of Environment, Forest and Climate Change—we actively contribute to mainstreaming biodiversity considerations in corporate decision-making. We are also part of the Climate Change Council of CII, through which we engage in dialogue on nature-related risks and low-carbon pathways. Our participation in these platforms helps influence progressive policies that support national biodiversity and climate goals.

Through sectoral and national industry bodies such as the Federation of Indian Mineral Industries (FIMI) and the Federation of Indian Chambers of Commerce and Industry (FICCI), we advocate for sustainable mining practices and science-based climate action. Hindustan Zinc Ltd., a Vedanta subsidiary, contributes to FIMI's Sustainable Mining Initiative, promoting techniques like paste backfill to minimise environmental degradation. We also engage in technical advocacy through geological conferences and public forums to highlight policy gaps and challenges in base metal exploration. Our policy engagement efforts are grounded in evidence-based representation and are aimed at aligning industrial growth with long-term ecological resilience and national biodiversity frameworks.





Human Right Due Diligence Process

We have embedded a robust human rights due diligence process within our broader strategy and governance framework to proactively identify, assess and mitigate potential risks across our operations and value chain. Our due diligence process is systematic and company-wide, involving periodic assessments to detect human rights risks and their potential consequences. These assessments are applied not only to our internal operations but also across our value chain and are integral when entering new business relationships, such as mergers, acquisitions and joint ventures. Human rights due diligence is a critical element of our risk management protocol and is directly aligned with our codes of conduct, policies and sustainability framework.

Our commitment to local communities is deeply integrated into our organisational approach. We work to avoid or minimise risks to community health and safety throughout the project lifecycle and respect local cultural lifestyles and heritage. We seek Free, Prior and Informed Consent (FPIC) from Indigenous Peoples and Vulnerable Tribal Groups (VTGs) wherever applicable. We actively engage with local communities to understand their priorities, communicate transparently and prevent physical and economic displacement. Our governance framework ensures clear accountability with the Executive Director overseeing policy implementation, and the Board ESG Committee conducting an annual review to drive continuous improvement and embed best practices.



Human Rights Due Diligence Process



Human Rights Assessment

We have established a structured processes to monitor, manage and remediate any adverse human rights impacts that may arise from our operations, supply chains or business relationships. In FY 2022, we conducted human rights self-assessments with the Global Compact Self-Assessment tool across 100% of our operational sites. These assessments are an integral part of our due diligence framework and help us proactively identify and address potential risks. Through this exercise, 30.7% of the sites part of the said assessments were identified as having potential human rights concerns, enabling us to initiate appropriate mitigation measures. During FY 2025, Vedanta has not caused nor contributed to any human rights violation or cases concerning nature-related impacts and dependencies. Therefore, no remediating actions were expected.



The Human Rights section on the Sustainability Report FY 2025 details the findings of the Human Rights Self-Assessment conducted by Vedanta and the corresponding mitigation measures undertaken.

We also maintain fair and accessible grievance mechanisms across our operations to ensure that all

stakeholders—including employees, contractors and community members—can raise concerns without fear of retaliation. Our [Technical Standard on Grievance Mechanisms](#) has been carefully curated to facilitate prompt resolution, support remediation and reinforce our commitment to upholding human rights throughout our business ecosystem.



Engagement with Local Communities

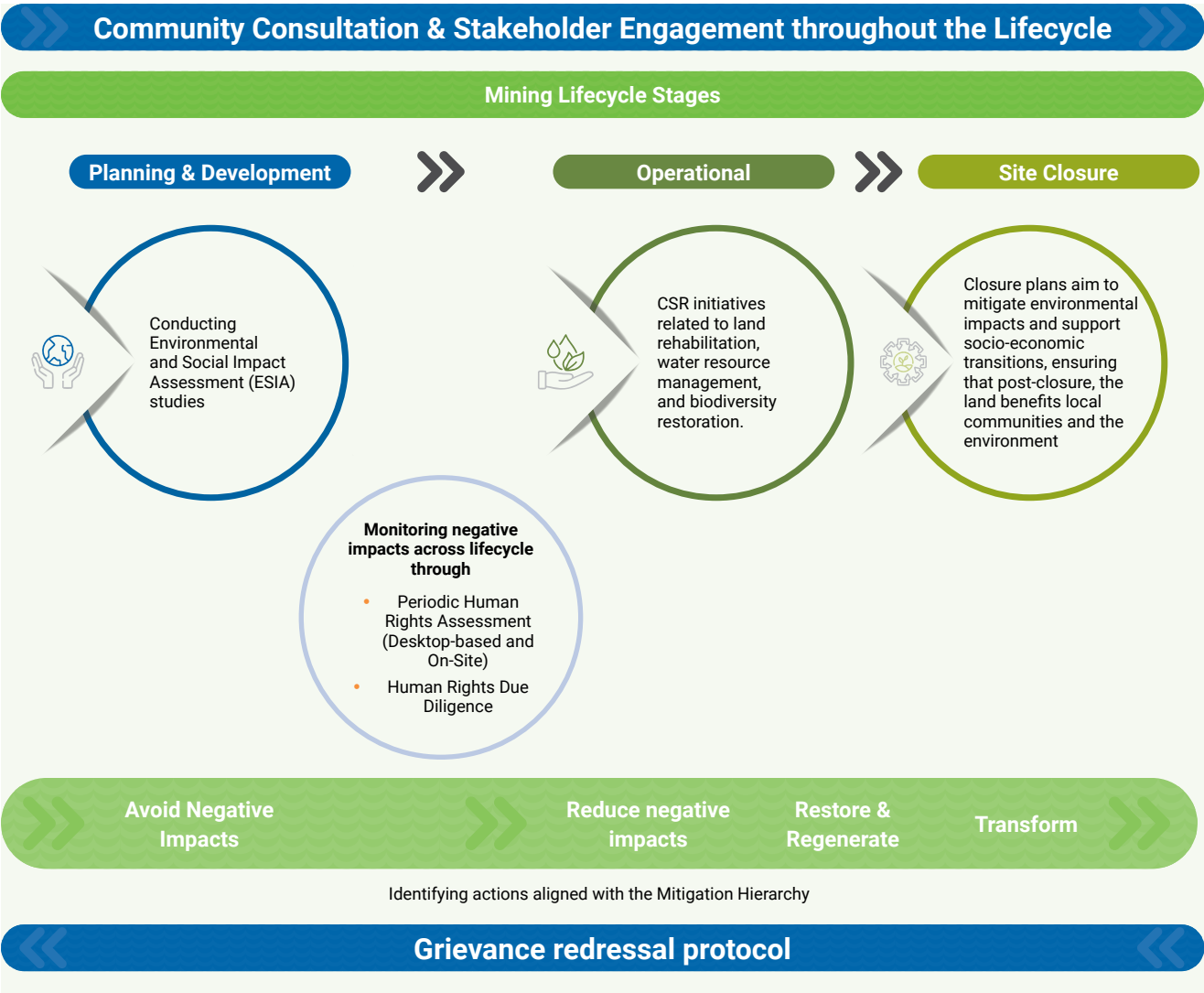
Our engagement with Indigenous Peoples, Vulnerable Tribal Groups (VTGs), local communities and other affected stakeholders is rooted in the principle of Free, Prior and Informed Consent (FPIC) and guided by a commitment to equitable access and benefit sharing. Equitable access and benefit sharing are achieved through community development programmes, local employment opportunities, local procurement practices and environmental stewardship initiatives. Our approach ensures that local communities—including Indigenous Peoples—derive socio-economic benefits from our operations while maintaining their rights and access to natural resources. Our “Transforming Communities” Pillar, CSR Policy and Supplier Code of Conduct serve as key instruments in shaping this engagement, ensuring it is respectful, participatory and aligned with broader sustainability goals.

We adopt the International Finance Corporation (IFC) definition of Indigenous Peoples, which recognises them as distinct social and cultural groups with collective attachment to ancestral territories, unique institutions and distinct languages or dialects. We also consider VTGs as those most marginalised and vulnerable to project impacts, often requiring special protection measures due to their socio-cultural dependence on natural ecosystems.*

We identify Indigenous Peoples, local communities and affected stakeholders through a structured stakeholder identification and analysis process undertaken across the project lifecycle. This involves mapping individuals or groups directly or indirectly impacted by operations, with a focus on vulnerable populations. The process is context-specific and includes consultations with community representatives, local leaders and institutions to ensure inclusive representation. Special attention is given to those with differential or disproportionate vulnerability due to social, cultural or economic factors. A detailed process of Stakeholder Identification and Analysis is available in our [Technical Standard on Stakeholder Engagement](#). Engagement with Indigenous Peoples, local communities and affected stakeholders is undertaken to support the assessment, solution-finding, monitoring and evaluation of nature-related dependencies, impacts, risks and opportunities. We foster long-term, inclusive relationships through both formal and informal structures, with engagement conducted through inclusive consultation and culturally appropriate dialogue, integrated across all stages of the project lifecycle rather than as one-off events. The Stakeholder Mapping and Engagement - Social & Indigenous Engagement section in the Sustainability Report FY 2025 details the various engagement activities undertaken by Vedanta in our sites.



*Source: Vedanta Technical Standard on Indigenous People/Vulnerable Tribal Groups



The Australian Government defines the Mitigation Hierarchy - The Mitigation Hierarchy is a tool that is used to limit the amount of damage an action, such as a development, will have on the environment.



03 Strategy



Commitment to Global Sustainability Goals

To translate these ambitions into action, we have invested substantial capital, resources, and policies to ensure measurable progress. Our aims align with the UN SDGs, reinforcing our commitment to global sustainability.

Through strategic investments and operational excellence, we strive to drive meaningful impact while maintaining a responsible and profitable business.



Nature-related Dependencies and Impacts

In this TNFD report, we have provided site-specific detailed insights on three priority locations, while also summarizing a sector-level analysis to better understand our broader nature-related interfaces across operational geographies.

As part of our second published TNFD disclosure, we have expanded our coverage to include detailed assessments

of three of its most ecologically sensitive sites, in addition to the three that were covered in the previous year's report. In the coming years, we aim to progressively incorporate all sites currently covered in the non-financial disclosure's reporting boundary that have a significant environmental footprint.





Vedanta's ESG Strategy

The natural and social fabric of the world is undergoing rapid change. With the looming threat of breaching the 2.0°C temperature rise threshold, the urgency for climate action has never been greater. Global decarbonization is no longer an option but an imperative, necessitating collaboration between public and private entities. As a responsible corporate leader, we here at Vedanta, recognize our critical role in addressing climate change, nature-related risks and driving sustainable development.

aspects into every facet of our decision-making. This initiative is more than a tagline; it is a guiding principle that shapes our long-term business strategy and operations. Each pillar is supported by specific aims that define our ESG priorities and drive tangible action.

Our ESG Pillars and Aims

We have set forth nine aims under our ESG framework, each aligned with global sustainability objectives and supported by clear targets and resource allocations.

Transforming for Good

Our commitment to sustainability is embodied in our 'Transforming for Good' initiative, which integrates ESG



Transforming Communities

Enriching lives and fostering socio-economic development.

Aim 1:
Keep community welfare at the core of business decisions.

Aim 2:
Empower over 2.5 million families with enhanced skillsets.

Aim 3:
Uplift over 100 million women and children through education, nutrition, healthcare, and welfare.



Transforming the Planet

Implementing sustainable practices to protect and restore the environment.

Aim 4:
Achieve net-carbon neutrality by 2050 or sooner.

Aim 5:
Attain net water positivity by 2030.

Aim 6:
Innovate for a greener business model.



Transforming the Workplace

Ensuring a safe, inclusive, and ethical work culture.

Aim 7:
Prioritize the safety and health of all employees.

Aim 8:
Promote gender parity, diversity, and inclusivity.

Aim 9:
Adhere to global business standards of corporate governance.

Commitment to Global Sustainability Goals

To translate these ambitions into action, we have invested substantial capital, resources and policies to ensure measurable progress. Our aims align with the UN SDGs,

reinforcing our commitment to global sustainability. Through strategic investments and operational excellence, we strive to drive meaningful impact while maintaining a responsible and profitable business.



Nature-related Dependencies and Impacts

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Going forward, we aim to progressively incorporate all sites currently covered in the non-financial disclosure's reporting boundary that have a significant environmental footprint.



Navigating the Nature Dependencies & Impact Pathways Table

The table below presents a consolidated view of our nature-related dependencies and impacts across six key sites—three covered in our previous TNFD report and three newly assessed in this reporting cycle. Aligned with the TNFD LEAP approach, it is structured into two main sections:

- Nature Dependency Pathways (left) outline how environmental assets and ecosystem services are relied upon during different stages of operation, such as predevelopment, processing, and beneficiation.
- Nature Impact Pathways (right) reflect how Vedanta's activities may potentially affect environmental assets and ecosystem services through three key Impact Drivers:
 - Land/Freshwater/Ocean-Use Change
 - Pollution and Pollution Removal
 - Resource Use and Replenishment

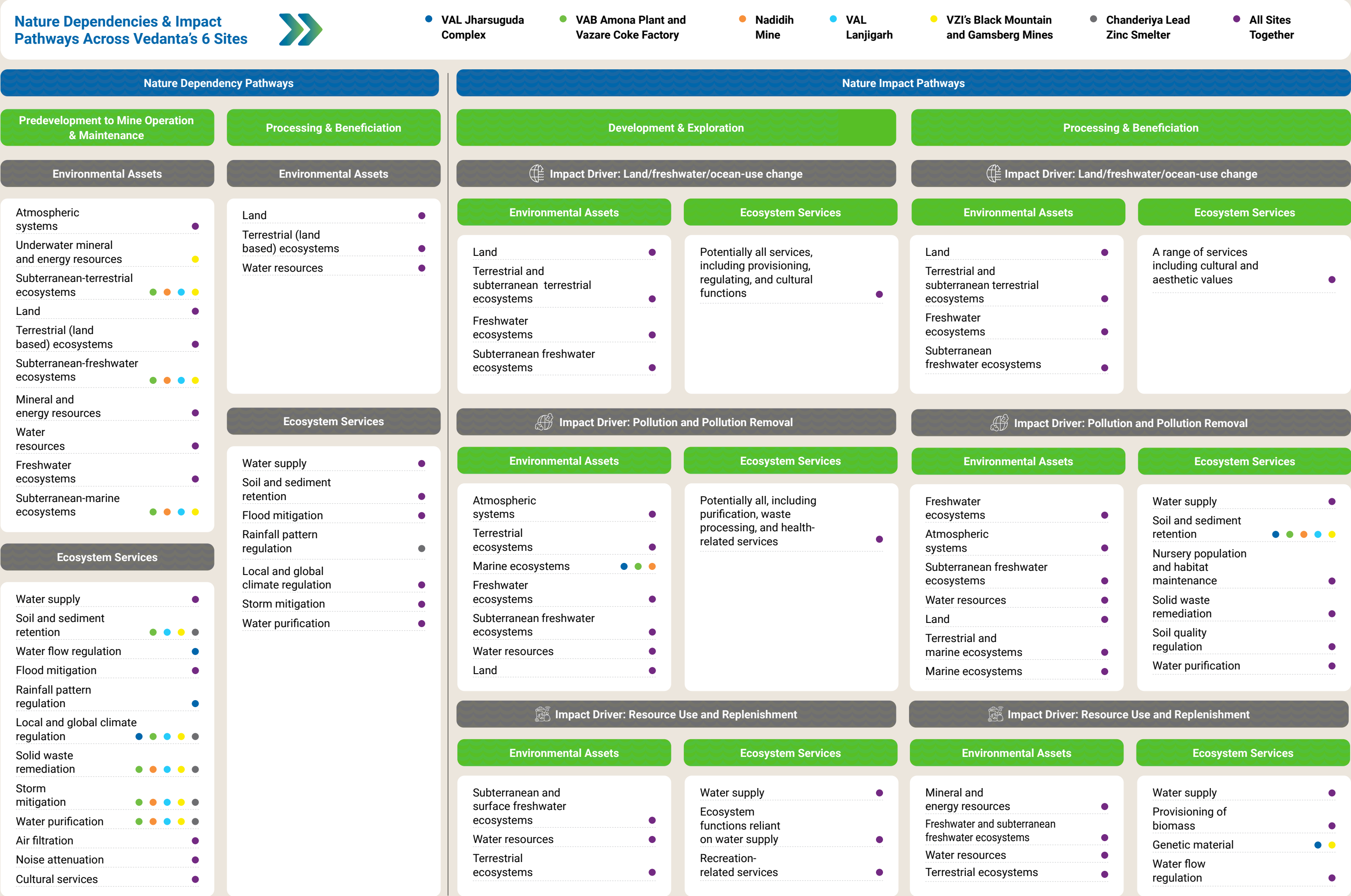
Each block within the table identifies the relevant Environmental Assets (e.g., land, freshwater ecosystems, atmospheric systems) and Ecosystem Services associated with a specific stage or impact driver. These ecosystem services are grouped into:

- Provisioning services (e.g., water supply, biomass, raw material availability)
- Regulating services (e.g., water purification, flood regulation, climate regulation)
- Cultural services (e.g., spiritual, aesthetic, and recreational value)

Supporting services (e.g., nutrient cycling, soil formation)

The coloured dots indicate which of Vedanta's six sites interact with each asset or service, either through dependency or impact. This visual structure enables clear identification of priority areas for risk management, stewardship, and restoration planning.





LEAP Approach

 Steps	Approach by Vedanta
L1 Span of the business model	Vedanta Limited, along with its 10 key subsidiaries and 42 operational sites across India, South Africa, and the UAE, is covered within the scope of this report.
L2 Dependency & impact screening	We employed the ENCORE tool, as recommended by TNFD, to identify sector-specific impacts and dependencies across its operations.
L3 Interface with Nature	To assess its interface with nature, we have utilized a combination of global environmental datasets, such as Global Forest Watch, the Ecoregion Intactness Index, WWF Risk Filter, and IBAT, alongside local resources, including ENVIS, Bhuvan, and the 2022 Ground Water Resource Assessment. The heat maps generated through ENCORE indicate that our nature-related dependencies and impacts are classified as moderate to high across all operational sectors.
L4 Interface with sensitive locations	Following an initial prioritization exercise, a comprehensive evaluation was conducted using Biodiversity Management Plans (BMPs) to assess factors such as natural habitat conversion, critical habitat overlaps, and the business footprint within protected areas. In the previous year's report, three key locations were selected for an in-depth impact and dependency analysis. This year, applying the same methodology, the next three high-priority sites have been identified and analysed as part of this reporting cycle.

Evaluate (Impact and Dependencies)

 Steps	Approach by Vedanta
E1 Identification of environmental assets, ecosystem services & impact drivers	We leveraged the TNFD guidance to map both dependency and impact pathways—identifying the ecosystem services and environmental assets that our business relies on, as well as those affected by our operations. ENCORE ratings were also used to determine the materiality of ecosystem services and key impact drivers.
E2 Identification of dependencies & impacts	Dependencies and impacts were identified at the sector level for the three sectors that we operate in using ENCORE and site-specific dependencies were also identified for the 3 selected sites in this year's TNFD disclosures, based on the TNFD guidance. Site-specific assessments incorporated spatial data, disclosure reports, and biodiversity management plans to evaluate the severity and frequency of impacts, assess mitigation measures, and capture positive outcomes.
E3 Measurement of dependencies & impacts	Impacts at the prioritized sites were assessed based on likelihood of occurrence and severity of identified impacts. Dependencies identified from the ENCORE tool were analysed to determine their importance, potential substitutes, and future availability. This included a two-step process with WRI's Corporate Ecosystem Service Review for a comprehensive evaluation.
E4 Impact Materiality Assessment	The materiality of impacts was determined by combining impact significance with likelihood. Dependencies were categorized as high, medium, or low based on their importance and the availability of substitutes.

Assess (Risk and Opportunities)

 Steps	Approach by Vedanta
E1 Identification of environmental Assets, ecosystem services & impact drivers	We leveraged the TNFD guidance to map both dependency and impact pathways—identifying the ecosystem services and environmental assets that our business relies on, as well as those affected by our operations. ENCORE ratings were also used to determine the materiality of ecosystem services and key impact drivers.
E2 Identification of dependencies & impacts	Dependencies and impacts were identified at the sector level for the three sectors that we operate in using ENCORE and site-specific dependencies were also identified for the 3 selected sites in this year's TNFD disclosures, based on the TNFD guidance. Site-specific assessments incorporated spatial data, disclosure reports, and biodiversity management plans to evaluate the severity and frequency of impacts, assess mitigation measures, and capture positive outcomes.
E3 Identification of dependencies & impacts	Impacts at the prioritized sites were assessed based on likelihood* of occurrence and severity# of identified impacts. Dependencies identified from the ENCORE tool were analysed to determine their importance, potential substitutes, and future availability. This included a two-step process with WRI's Corporate Ecosystem Service Review for a comprehensive evaluation.
E4 Impact Materiality Assessment	The materiality of impacts was determined by combining impact significance with likelihood. Dependencies were categorized as high, medium, or low based on their importance and the availability of substitutes.

Prepare

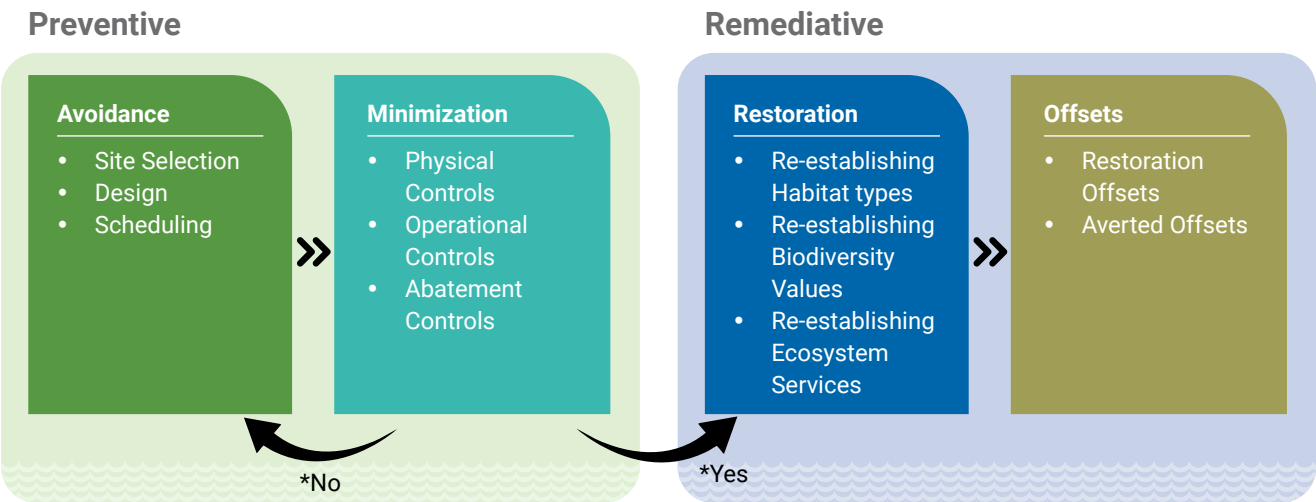
 Steps	Approach by Vedanta
P1 Strategy & resource allocation plans	Overview of current strategy on management of nature-related issues have been included, with linkage to the nature-related materiality issues and risks. Based on the findings of the LEAP exercise, we will further review internal strategy, management and monitoring to align with national and global goals on addressing nature loss and degradation.
P2 Target setting & performance management	Existing targets for the management of nature and biodiversity have been reviewed and integrated, establishing clear linkages with identified risks and opportunities. Moving forward, additional targets will be reviewed and refined based on sector-specific considerations and the materiality of risks, ensuring alignment with our strategic goals. Performance against these targets will be evaluated regularly to ensure that we continue to make meaningful progress in our commitment to nature and biodiversity.
P3 Reporting	We disclose and report on our material nature-related issues through the BRSR and Integrated Report. Our Sustainability Report includes information on waste, water and GHG footprints. Further with our TNFD report, we will align our disclosure and reporting on assessment results, details of improvements, actions taken, and additional metrics scoped to align with TNFD. These reports will cover nature-related risks and opportunities as identified and prioritized through periodic assessments and monitoring.
P4 Presentation	We will disclose Nature-related risks and opportunities continuously in accordance with TNFD recommendations.

*Likelihood: The likelihood of occurrence is classified as almost certain, possible, unlikely, based on the robustness of management systems and evidence of occurrence.
#Severity: The severity of impacts is categorized as major, moderate, or minor, considering the magnitude, scale, duration, and sensitivity of affected receptors.

Business Model, Value Chain and Strategy

Our decision-making framework embeds the mitigation hierarchy across the project lifecycle, beginning with early-stage risk screening and biodiversity assessments for all new and existing operations. These assessments help identify

sensitive habitats, critical ecosystem services and priority conservation values, enabling us to avoid impacts where possible and minimise, restore or offset where necessary.



*Can potential be managed adequately through Remedative measures?
Implementation of Mitigation Hierarchy*

Avoidance is the first and most critical step. It involves taking proactive measures—such as informed site selection, design changes or scheduling adjustments—to steer clear of potential biodiversity impacts before they occur. These decisions are made at the earliest planning stages; otherwise, cost-effective and ecologically sound alternatives may no longer be viable. The location of new operations is informed by biodiversity risk considerations, particularly to avoid development in protected or high-conservation value areas. To support these efforts, we are adopting decision-support tools such as the Integrated Biodiversity Assessment Tool (IBAT), spatial mapping systems and ecological modelling techniques, with further plans to build internal capability for biodiversity forecasting and data analysis.

For impacts which cannot be fully avoided, we practice **minimisation**. This involves reducing severity, duration or extent of effects through physical, operational or abatement controls. Effective minimisation planning can bring impacts below significance thresholds, particularly when integrated into construction and operational phases. Site-specific Biodiversity Management Plans (BMPs) are developed based on risk level and integrated into our broader environmental and social management systems. For projects near national protected areas (NPA) and/or internationally recognised key biodiversity areas (KBA), we undertake additional stakeholder engagement and adopt

enhanced conservation measures. Our standards require the use of baseline surveys, ecosystem dependency and impact assessments and monitoring systems to ensure informed decisions and adaptive management. We also extend responsibility across our value chain, being mindful of biodiversity risks linked to suppliers and promoting responsible sourcing.

For any residual impacts, we pursue **restoration**. This includes on-site efforts to re-establish degraded habitats, biodiversity values or lost ecosystem services, ideally targeting the specific ecological features affected.

Vedanta has developed Progressive Mine Closure Plans for all its sites, which outline a structured, phased approach to reclamation and ecological restoration that begins during active operations rather than being deferred to the end of the mine's life. This approach minimises cumulative biodiversity impacts, enhances landscape resilience and ensures an earlier return of land to a productive or natural state. The plan includes systematic backfilling and recontouring of mined-out pits, followed by biological reclamation using native flora, and incorporates clear benchmarks for landform re-contouring, top-soil management and monitoring of ecological success. Engineering measures such as retaining walls, check dams and slope stabilisation are also integrated to mitigate erosion and ensure long-term land stability. Areas

not backfilled are planned to be transformed into water reservoirs, contributing both ecological and community value. A comprehensive post-closure monitoring framework will assess ecological recovery, soil quality and slope stability. The plan reflects Vedanta's alignment with the restoration step of the mitigation hierarchy and its commitment to long-term environmental stewardship and reduced nature-related risks.

Offsets are applied when impacts cannot be sufficiently addressed through the earlier steps. These are off-site, measurable conservation outcomes aimed at

compensating for residual harm. While offsets may support NNL, we deploy them sparingly, recognising their complexity and the challenge of securing enduring ecological benefits.

Our roadmap places emphasis on active collaboration, working closely with conservation partners, local communities, scientific institutions and sectoral peers. These partnerships support the co-development of restoration programmes, monitoring systems and nature-positive actions aligned with national and global biodiversity goals.

 Collaboration	 Activity	 Impact achieved	 Status
Forest department of Rajasthan	A study to understand the habitat requirement for recolonization of fishing cat	- Increase habitat of mudflat and wetland associated bird species. - Conservation of IUCN threatened species	Completed
Forest department of Rajasthan	Signed an MoU with forest department for afforestation in area of 700 ha (0.35 Mn plantation) in Barmer district, Rajasthan	400 ha plantation completed - Achieved rights to use Carbon Credit to internal offset of carbon & Biodiversity Impact footprint	Ongoing
Forest Department, Rajasthan State Pollution Control Board (RSPCB), Border Security Force (BSF), Indian Armed Forces, Indian Air Force	Promote afforestation outside the forest area targeting plantation of approximately 2.5 Lakh saplings by 2024	- Carbon offset and Mitigate climate change. - Increase biodiversity values. - Protection against soil erosion	Ongoing
Forest Department of Rajasthan	MoU signed with Forest Deptt for an Area 550 Ha Mangrove development in Ravva and Suvvali	- Right to use Carbon Credit for internal offset of carbon & Biodiversity impact footprint - Livelihood opportunities for community - Protective buffer zone to shield coastlines - Prevent soil erosion - Improve water quality by filtration of sediments and pollutants. - Flood mitigation and carbon sequestration. - Breeding grounds for numerous wetland bird species	Ongoing

*Source: A cross-sector guide for implementing the Mitigation Hierarchy

We undertake mitigation measures that aim to transform biodiversity management. Notably, we have partnered with external consultants to review and update relevant policies, standards and guidance documents based on a gap assessment. It will provide expert advisory inputs to internal forums and the Biodiversity Community of Practice. Additionally, we will conduct quarterly capability-building

programmes across organisational levels to promote the NNL approach. We also conduct biodiversity awareness initiatives, which include publishing coffee table books documenting local biodiversity around operational assets in Ravva (Cairn Oil & Gas). These initiatives will help in bringing a system-wide and societal change in biodiversity conservation.



Interface of Vedanta’s Supporting infrastructure with Nature

As part of our nature-positive strategy, we continually enhance the ways our supporting infrastructure coexists with the ecosystems around our operations. Across our medium-voltage transmission network—spanning roughly 2,500 poles—we’ve replaced straight cross-arms with bird-friendly V-arms, fitted double-pole structures with caps and spikes, and installed Medium-Voltage Covered Conductor (MVCC) to provide a continuous insulating sheath. These improvements have virtually eliminated avian collisions and accidental contacts, while also preventing line trips and boosting operational reliability.

Our access roads, which traverse forest-fringe areas near several of our mine leases, now feature wildlife-warning signage to guide drivers safely through sensitive habitats. In addition, we’ve provided a dedicated Wildlife Rescue Vehicle to local forest authorities, ensuring that any injured animals receive rapid stabilization and transport to rehabilitation centres.

Along our Cairn Suvali and Ravva hydrocarbon corridors, where subsea pipelines and onshore terminals once resulted in the loss of intertidal sand-flat, mud-flat and mangrove areas, we are regenerating over 100 hectares of coastal habitat through mangrove replantation and shore-stabilization projects. Ongoing biodiversity monitoring informs our adaptive stewardship, enabling us to celebrate ecological recovery milestones or swiftly adjust our approach if further interventions are needed.

By embedding these proactive, ecosystem-enhancing measures into our design, construction and operations, we are not only safeguarding wildlife but also creating enduring value for local communities, shareholders and the natural world alike—fully aligned with TNFD’s guidance on nature-related opportunity management.



Mapping Nature-Linked Commodity Dependencies

Vedanta’s interface with nature is driven by the extraction, processing and consumption of a suite of high-risk commodities identified by the Science Based Targets Network (SBTN). In our operations we manufacture or use, Gold, Copper, Silver, Zinc, Lead, Bauxite/Alumina, Steel, Coal, Liquefied Natural Gas (LNG) and Crude Oil/Petroleum.

Each of these commodities carries inherent nature-related impacts—from habitat disruption and water stress in mining operations, to greenhouse-gas emissions and spill

risks in fossil-fuel handling—and therefore informs both our risk assessment and our strategic decision-making. By mapping our commodity footprint against SBTN’s high-risk list, we ensure that nature-related dependencies and impacts are rigorously identified, monitored and managed across the value chain.

Percentage of sites meeting thresholds across various datasets—focusing on biodiversity values, ecosystem integrity, and water risk:

	Total Sites	Important Biodiversity Values				Ecosystem Integrity		Status	
		Presence of Protected Areas and Key Biodiversity Areas	Likely Critical Habitat	Potential high impact on freshwater biodiversity	Potential high impact on terrestrial biodiversity	Natural Habitat Converted	High Ecosystem Intactness	Emerging Hotspots	High water risk*
Oil and Gas	7	0%	0%	71%	0%	0%	0%	0%	100%
Power	1	0%	0%	0%	0%	0%	0%	0%	100%
Metals and Mining									
Aluminium	3	67%	67%	0%	100%	67%	0%	33%	33%
Iron and Steel	9	11%	22%	0%	44%	56%	0%	0%	33%
Copper	4	0%	25%	0%	0%	0%	0%	0%	25%
Zinc	11	18%	36%	0%	55%	18%	18%	0%	100%

*Note: Vedanta conducted a water risk assessment across their assets and BUs. The water risk rating corroborates with the findings of the report.

Note: To prioritize sites, we used datasets with specific thresholds: STAR/IBAT for high to very high species threat levels, proximity to Legally Protected Areas and Key Biodiversity Areas within 5km, and WWF Water Risk Filter for very high freshwater biodiversity impacts. We assessed biodiversity significance through Global Forest Watch (high significance), ecosystem integrity with the Ecoregion Intactness Index (high), and water stress using WWF and Ground Water Resource Assessment (very high risk, over-exploited). These criteria helped prioritize sites based on biodiversity values, ecosystem health, and water risks

Note: These are potential impacts based on global datasets. However, Cairn depends on saline water abstraction to meet its water requirements at majority of its operational sites & is also Net Water Positive with 1.15 in FY 23-24.

Heatmap of Exposure to Nature-related Impacts

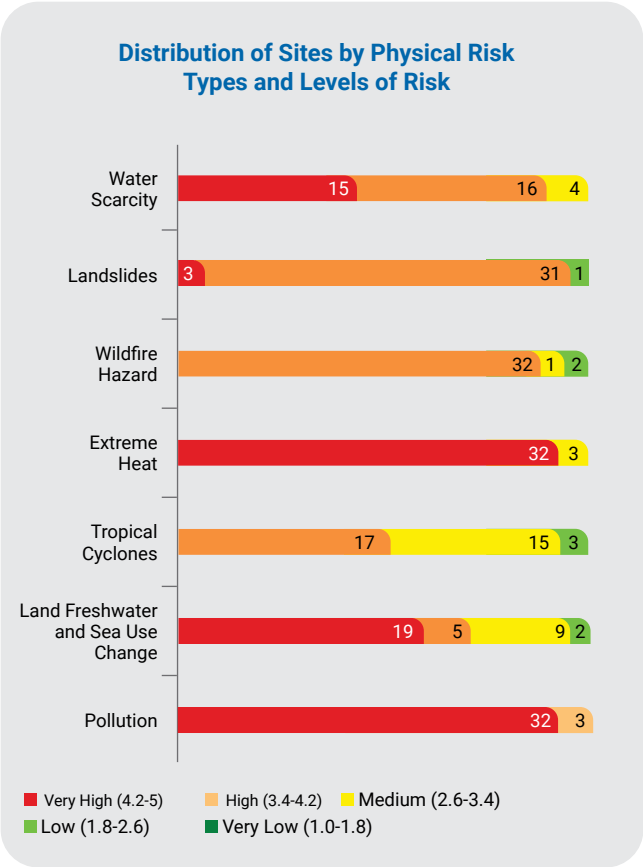
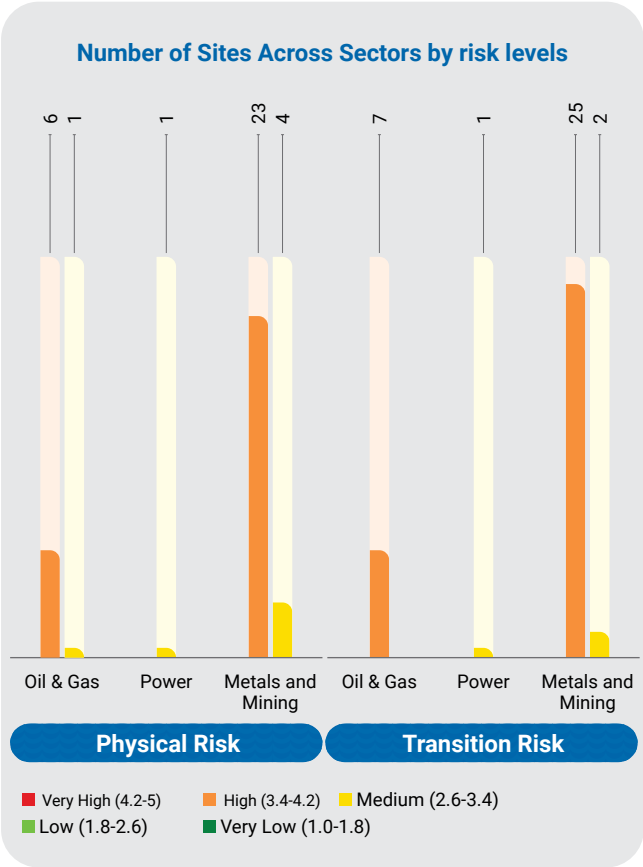
Drivers of Nature Change (IPBES)	Resources Use/ Replenishment	Land, Freshwater and ocean use change			Climate Change	Pollution/ Pollution removal				
Business Sector	Water Use	Terrestrial Ecosystem Use	Freshwater Ecosystem Use	Marine Ecosystem Use	GHG Emissions	Non-GHG Pollutants	Water Pollutants	Soil Pollutants	Solid Waste	Disturbances
Oil and Gas	■	■	■	■	■	■	■	■	■	■
Power	■	■	■		■	■	■	■	■	■
Metals and Mining	■	■	■		■	■	■	■	■	■

Heatmap of Exposure to Nature-related Dependencies

Business Sector	Direct Physical Input		Enables Production Process		Protection from Disruption
Business Sector	Ground Water	Surface Water	Water Flow Maintenance	Climate regulation	Water Flow Maintenance
Power	■	■	■	■	■
Metals and Mining	■	■	■	■	■

	Direct Physical Input		Mitigates Direct Impacts		Protection from Disruption	
	Ground Water	Surface Water	Bioremediation	Filtration	Climate regulation	Flood and Storm Protection
Oil and Gas	■	■	■	■	■	■

■ Very High ■ High ■ Medium ■ Low ■ Very low



Note: Of the six sites excluded from the current assessment, four are either newly acquired or recently developed units and are expected to undergo a formal assessment in subsequent cycles. The remaining two sites – VGCB and Fujairah – are relatively small, and their environmental footprint was deemed immaterial during the pre-assessment stage. In the case of Aluminium, BALCO and Chotia mines are considered as one site for this assessment.



Ecologically Sensitive Locations

In last year’s TNFD report, we conducted an in-depth impact and dependency analysis of three key locations. Building on the same methodology, this year’s reporting cycle focuses on the next set of three high-priority sites. These sites were selected based on a combination of criteria, including proximity to protected and ecologically sensitive areas, STAR(T) and STAR(R) scores, degree of natural habitat disturbance, and projected timelines for achieving No Net Loss (NNL) targets. For more details on the three sites considered last year, please refer to the previous report.

In line with the TNFD’s definition of priority locations—those that are both environmentally sensitive and material to the organization—we have undertaken a detailed assessment of the selected sites to evaluate their interface with nature. The findings, which reflect the biodiversity significance, ecosystem integrity, physical water risks, and relevance to local communities and stakeholders, are summarized in the table below.

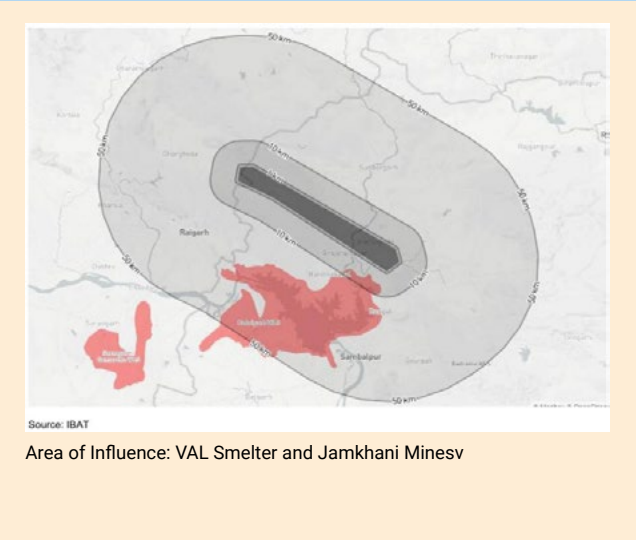
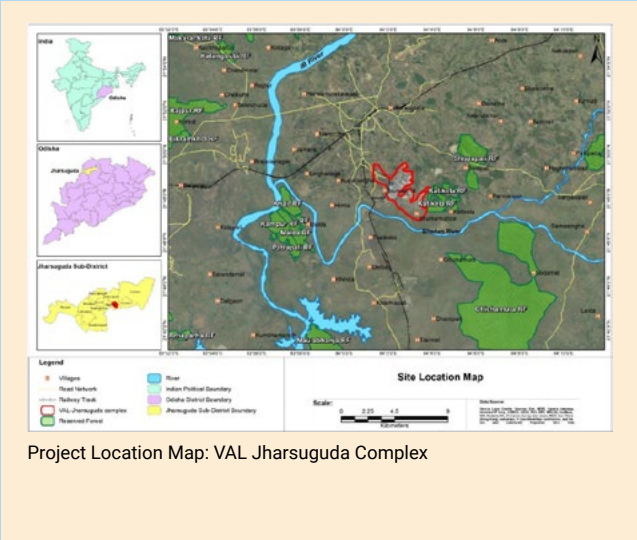
Site	Areas Important for Biodiversity	Areas of High Ecosystem Integrity	Areas of Declining Ecosystem Integrity	Areas of High Physical Water Risks	Areas Important for Ecosystem Services & Communities
VAL Jharsuguda Complex	Located within Sambalpur Elephant Reserve; presence of threatened species (e.g., Asian Elephant, Tiger); proximity to Katikela RF; within 50 km of Hirakud Reservoir, Debrigarh and Badrama WLS (KBAs/ IBAs).	Katikela Reserve Forest and nearby sanctuaries support significant ecological value.	Habitat loss, air/water/noise pollution, invasive species, and risks to native plant species indicate ecological stress.	Adjacent to Bhedan River; risks from water consumption and runoff.	Surrounding agricultural areas rely on ecosystem services; BMP includes village pond restoration and local stakeholder engagement.
VAB Amona & Vazare Coke Factory	Proximity to multiple protected areas and biodiversity hotspots (e.g., Mhadei, Bondla, Bhagwan Mahavir WLS); presence of CR and EN species; mangroves and mudflats near Mandovi River.	Multiple protected areas and Western Ghats influence indicate strong ecological integrity.	Habitat loss and degradation from emissions, runoff, and pollution; impacts to mangroves and local flora/fauna.	Water sourced from Mandovi River; potential impacts from industrial runoff and vessel discharge.	Located in agricultural zones and fishing-dependent communities; BMP includes awareness campaigns and local stakeholder involvement.
Nadidih Iron Ore Mine	Near Reserve Forests (Karo, Mendhamaruni, Uliburu, Kathamala); within the Karo-Karampada Elephant Corridor; several threatened/restricted-range species identified via IBAT.	Reserve Forests and the elephant corridor support habitat connectivity and ecological resilience.	Mining-related habitat alteration, corridor disruption, and risks to key species (e.g., elephant, sloth bear).	Risks of water scarcity and pollution affecting nearby streams and ponds.	Communities rely on agriculture and forest ecosystem services (e.g., NTFPs, water flow regulation); biodiversity awareness programs in place.

Several of our operations are in ecologically significant regions where biodiversity sensitivity and conservation risks are pronounced.

Our understanding of our ecological interfaces has enabled us to identify and prioritize high-risk locations for biodiversity, ecosystem services, and community well-being. This knowledge strengthens our ability to adopt nature-positive strategies and integrate biodiversity risk management into broader corporate decision-making processes.

Site Specific Risks and Opportunities

I. Vedanta Aluminium Limited (VAL) Jharsuguda Complex



We operate the Vedanta Aluminium Limited (VAL) Jharsuguda Complex, one of the largest integrated aluminium production facilities in the region. The complex includes two aluminium smelters with a combined capacity of 1.8 million tonnes per annum, a 1215 MW captive power plant (CPP), and a 2400 MW thermal power plant (TPP). Situated across ~3,000 acres in a transformed agricultural landscape spanning Brundamal, Bhurkhamunda, and Banjari villages in Odisha, the land used comprises former agricultural and revenue waste land. No designated forest land was acquired for the development of this site.

We recognize that our operations are located within a wider area of ecological significance, including the Sambalpur Elephant Reserve. Our biodiversity assessments have identified the presence of Schedule I species such as the Asian Elephant (*Elephas maximus*), Indian Pangolin (*Manis crassicaudata*), and Tiger (*Panthera tigris*), as well as other threatened birds and reptiles. With this awareness, we have proactively implemented a site-specific Biodiversity Management Plan (BMP) aligned with our commitment to achieve No Net Loss (NNL) of biodiversity.



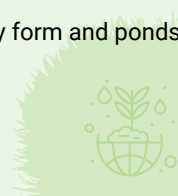
Physical Risks (Acute)

(I) Habitat and Ecosystem Degradation

Given the industrial scale of our operations, we acknowledge the potential for habitat degradation due to emissions, runoff, and land transformation. Our particulate and gaseous emissions, vehicle movement, and fly ash management could impact air and soil quality, while surface runoff may affect nearby aquatic systems.

What we are doing:

- We operate in Zero Liquid Discharge (ZLD) mode to eliminate untreated discharges.
- We've restored local village ponds to manage runoff and support local biodiversity.
- We've developed greenbelt buffers and implemented water sprinkling and road asphaltting to reduce dust.
- Fly ash is disposed of in slurry form and ponds are restored post-use.



(II) Invasive Species

We have identified invasive species such as *Lantana camara* and *Parthenium hysterophorus* in the vicinity, which compete aggressively with native flora. As part of our long-term ecosystem management, we have initiated manual and strategic removal of these species.

What we are doing:

- Manual weed removal before seed set, followed by safe disposal.
- Coordination with the Forest Department to ensure scientific control methods.
- Continuous monitoring to prevent regrowth and spread



Physical Risks (Acute)

(I) Wildlife Disturbance and Isolation

Our vehicle movement and operational noise may lead to wildlife avoidance and fragmentation of corridors. Being part of the Sambalpur Elephant Reserve landscape, we are highly sensitive to these dynamics.

What we are doing:

- Implementing our Wildlife Conservation Plan (WLCP) for Schedule I species in collaboration with forest authorities.
- Supporting corridor development through avenue plantations and financial assistance to the Forest Department.
- Conducting wildlife awareness campaigns and deploying anti-poaching measures.



(II) Impacts on Threatened Species

Threatened flora and fauna in the region, such as *Elephas maximus indicus* (Elephants), and *Melursus ursinus* (Sloth bears), require tailored interventions. We've taken a species-specific approach to conservation.

What we are doing:

- In-situ protection and targeted plantation of threatened plant species.
- Establishing elephant squads, solar fencing, watch towers, and control rooms to manage human-wildlife interactions.
- Regular engagement with forest officials and community stakeholders.







Key Opportunities

Achieving No Net Loss (NNL) of Biodiversity:

Our BMP is guided by the mitigation hierarchy—Avoid, Minimize, Restore, and Offset. Through this structured approach, we aim not only to mitigate impacts but also to generate conservation gains, making progress toward a nature-positive future.

Restoration of Village Ponds:

We’ve restored multiple village ponds around our operations, enhancing community water access, local biodiversity, and landscape-level water regulation.

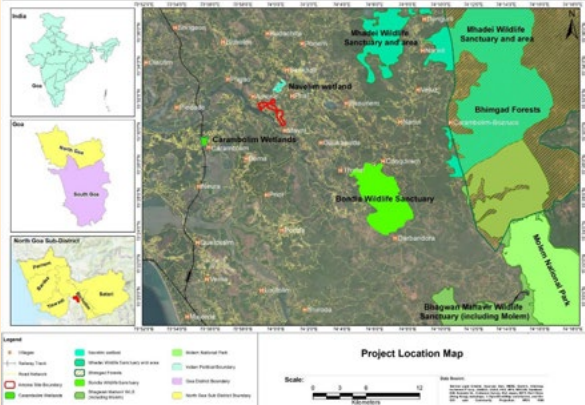
Infrastructure for Ecological Governance:

We’ve installed ecological surveillance infrastructure—control rooms, watch towers, and on-site monitoring teams—to safeguard biodiversity and reduce poaching risks.

Going Beyond Compliance:

We’re exploring additional habitat enhancement initiatives beyond operational boundaries. These include potential rewilding zones, buffer greenbelts, and biodiversity education interventions to build a culture of conservation around our site.

II. Vedanta Value Added Business (VAB) Amona and Vazare Coke Factory



Project Location Map: VAB Amona

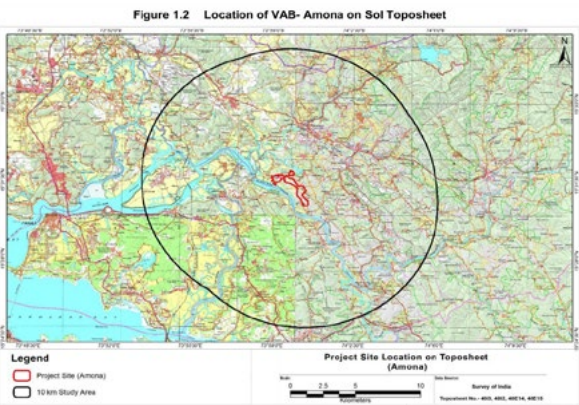
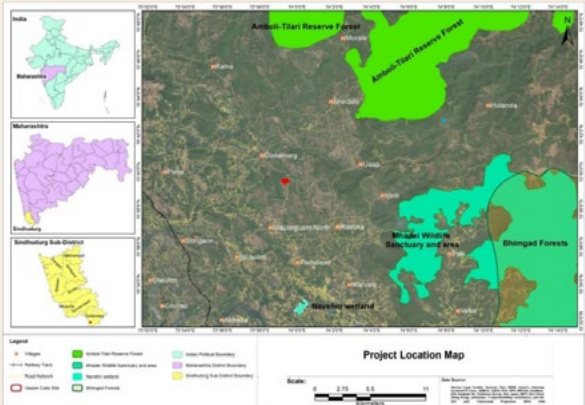
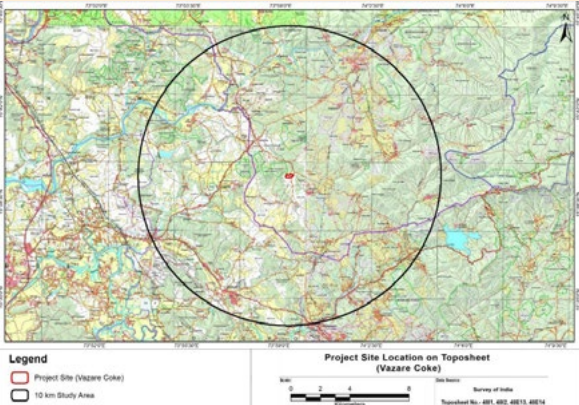


Figure 1.2 Location of VAB- Amona on Sol Toposheet

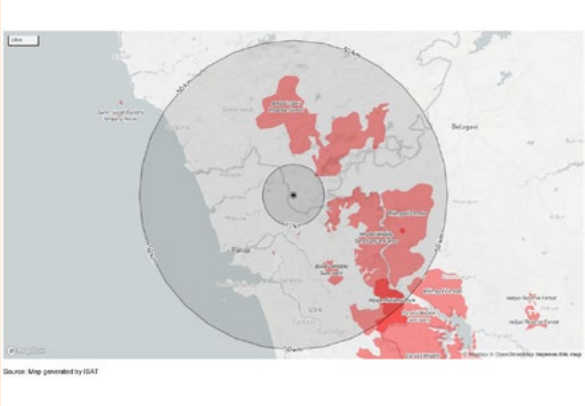
Area of Influence: VAB Amona



Project Location Map: Vazare Coke Plant



Area of Influence: Vazare Coke Plant



Area of Influence: Vazare Coke Plant

We operate the Vedanta Value Added Business (VAB) Amona Plant in Goa and the Vazare Coke Factory in Maharashtra as part of our integrated pig iron and coke production value chain. The VAB Amona Plant covers 161 ha, while the Vazare Coke Factory spans 9.46 ha. Both projects are located on previously non-forest land—primarily scrubland and agricultural land—and are situated near the biodiversity-rich Western Ghats. The Amona Plant lies approximately 7.5 km, and the Vazare unit just 1.8 km, from the nearest eco-sensitive zone boundary.

These sites are near ecologically important areas such as the Navelim Wetland and Important Bird Area (IBA), Mhadei Wildlife Sanctuary, and the Amboli–Tillari Conservation Reserve. Recognizing the high conservation value of these locations, we have developed a dedicated Biodiversity

Management Plan (BMP) to guide our actions. The plan integrates Critical Habitat Assessment findings and is designed to achieve No Net Loss (NNL) of biodiversity while delivering net positive outcomes where possible.

Physical Risks (Chronic)

(I) Habitat and Ecosystem Degradation (Medium-Term Risk)

We acknowledge that industrial activity at both sites may contribute to habitat degradation through emissions, dust generation, and vehicle movement. Sensitive receptors include the Ambadgaon Reserve Forest (just 10 meters from Vazare) and nearby riparian habitats.

What we are doing:

VAB Amona:

- Water sprinkling at raw material storage areas and asphaltting of internal roads to control dust.
- Asphaltting of internal roads to reduce particulate matter
- Development of greenbelts around the site
- Gap plantation in riparian habitats to restore ecological balance

- Creation of thematic ecological assets, such as a butterfly park, reptile habitat, and gene pool plantation, to enhance local biodiversity

Vazare Coke Factory:

- Implementation of a Greenbelt Plan, with dense plantations along the northern boundary to shield the Ambadgaon RF
- Air pollution control measures to reduce fugitive emissions from coke production processes



(II) Water Pollution (Medium-Term Risk)

At both sites, surface runoff and proximity to aquatic ecosystems present water-related risks. At Vazare, runoff could affect local microflora and the Ambadgaon RF. At Amona, activities near the Mandovi River jetty could impact mangroves and mudflats.

What we are doing:

VAB Amona:

- Implementation of a Zero Liquid Discharge (ZLD) policy
- Collection of surface runoff in sedimentation tanks for primary treatment
- Protection of nearby mangroves and mudflats, which serve as critical habitats
- Restoration of village ponds (a practice from VAL Jharsuguda with relevant applicability in improving community water resilience and ecological restoration)

- Vazare Coke Factory:

Vazare Coke Factory:

- Construction of sedimentation tanks to capture and treat surface runoff before discharge
- General water pollution control measures to reduce contamination risks from coke processing activities



(III) Noise Pollution (Long-Term Risk)

Noise pollution from industrial activities and vehicular movement at the VAB Amona Plant and Vazare Coke Factory present risks to local fauna. Over time, such disruptions may contribute to population decline and altered species distribution, especially in ecologically sensitive areas near the facilities.

What we are doing:

VAB Amona:

- Greenbelt development around the site to serve as a natural barrier for noise attenuation

Vazare Coke Factory:

- Noise pollution control measures implemented across the site
- Greenbelt plantation along the project boundary to buffer adjacent ecosystems, including the nearby Ambadgaon Reserve Forest





Key Opportunities



At the VAB Amona Plant and Vazare Coke Factory, several site-specific opportunities have been identified that can contribute to biodiversity enhancement, improved environmental performance, and long-term ecological value creation. These actions are embedded within the site-level management plans and align with our broader sustainability goals.

Biodiversity Enhancement: At the VAB Amona site, we are targeting 33% green cover using native species. Through thematic landscaping and ecological enrichment (e.g., butterfly and reptile habitats), we aim to boost local biodiversity and contribute to environmental education.

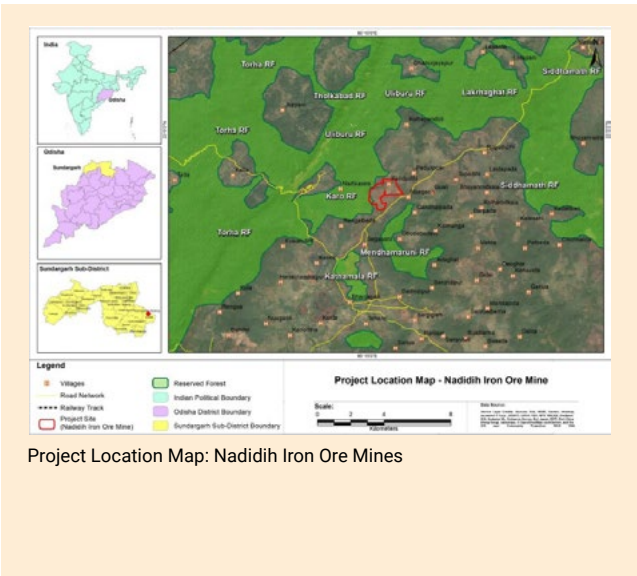
Habitat Protection and Creation: We are actively preserving sensitive habitats such as mangroves, mudflats, village ponds, and lateritic plateaus.

Restoration of degraded patches and microhabitats—including frog habitats—further supports our conservation goals.

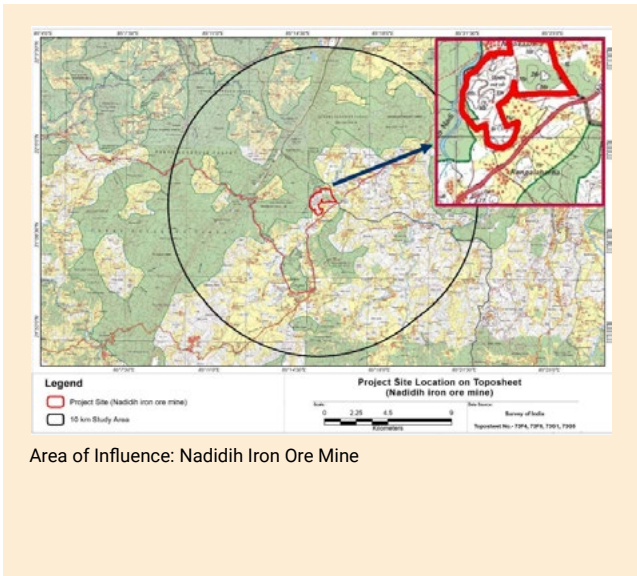
Improved Environmental Management: The Vazare Coke Factory has implemented a site-specific Environmental Management Plan (EMP), which systematically addresses emissions, waste, and water management—ensuring compliance while promoting ecological well-being.

Stakeholder Engagement and Awareness: We are engaging nearby communities and stakeholders through awareness campaigns on threatened species, responsible land use, and biodiversity protection. These initiatives help foster shared ownership and long-term behavioral change, reinforcing our social license to operate.

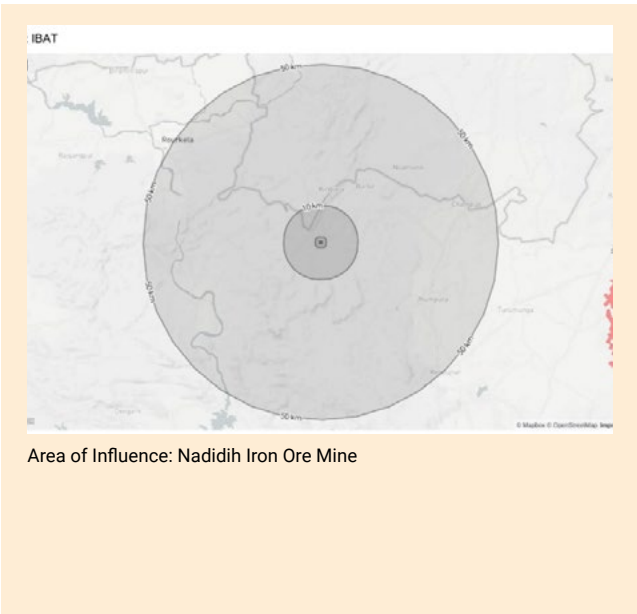
III. Nadidih Iron Ore Mine



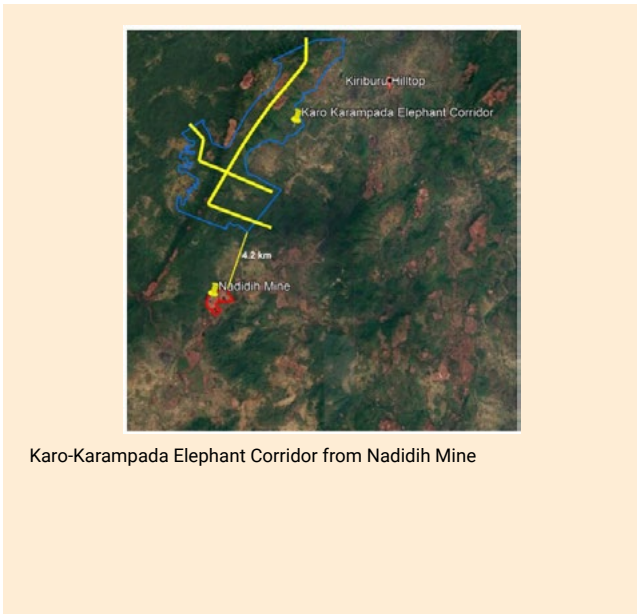
Project Location Map: Nadidih Iron Ore Mines



Area of Influence: Nadidih Iron Ore Mine



Area of Influence: Nadidih Iron Ore Mine



Karo-Karampada Elephant Corridor from Nadidih Mine

The Nadidih Iron and Manganese Mine, located in Sundargarh district, Odisha, spans 121.4 hectares and has been operational since 1961. Although the mine site has resulted in the loss of approximately 89.87 hectares of forest land, alongside 31.535 hectares of non-forest land, we are committed to managing the environmental impacts responsibly. The mine is located in proximity to key ecological zones, including the Karo-Karampada Elephant Corridor (4.2 km away), Reserved Forests (Karo RF, Uliburu RF), and several protected areas. These include important

habitats for species like the Asian Elephant (*Elephas maximus*) and the Sloth Bear (*Melursus ursinus*), which are vulnerable to habitat fragmentation. We are fully aware of the region's biodiversity significance and have put in place a Biodiversity Management Plan (BMP) that integrates conservation actions to achieve No Net Loss (NNL) of biodiversity while identifying opportunities to contribute to landscape-level conservation.

Physical Risks (Chronic)

(I) Habitat and Wildlife Impacts (Medium-Term Risk)

Mining operations at Nadidih, including dust, air, and noise pollution, pose a risk to both vegetation and wildlife in the surrounding area. These impacts are compounded by the loss of 89.87 hectares of forest land, which has fragmented local habitats and disrupted ecological corridors.

What we are doing:

For Habitat Loss and Degradation:

- Compensatory afforestation for the diverted forest area
- Progressive plantation of ~78 ha planned for mine closure phase
- Surrender of 5.443 ha of forestland for conservation
- Water sprinkling on haul roads and dust suppression techniques to minimize air pollution

- Greenbelt development to potentially attenuate noise and serve as a buffer

For Wildlife Conservation:

- Development of a site-specific Wildlife Conservation Plan, approved by the PCCF
- Installation of solar lighting, control rooms, watch towers, and signage to guide traffic and reduce collisions
- Capacity building of forest staff and regular coordination with the Forest Department



(II) Impacts on Threatened Species (Long-Term Risk)

The mine's proximity to the Karo-Karampada Elephant Corridor, a vital migratory route for elephants, heightens the risk of human-wildlife conflict, particularly with elephants and other fauna like the Sloth Bear. The loss of forest habitat also impacts threatened plant species such as Chloroxylon swietenia, which is sensitive to habitat changes.

What we are doing:

- Implementation of a site-specific Wildlife Conservation Plan, approved by the Principal Chief Conservator of Forests (PCCF)
- Formation of an elephant squad and hiring of dedicated vehicles
- Gap plantation for the restoration of threatened plant species, especially Chloroxylon swietenia

- Restoration of degraded patches in collaboration with the Forest Department
- Identification and in-situ protection of existing individuals of threatened species
- Awareness generation programs on biodiversity for local communities and site staff
- Support to the Forest Department in conservation initiatives, including capacity-building and field-level interventions



(III) Use of Water Resources (Medium-Term Risk)

The long-term extraction of surface and groundwater for mining operations, especially for wet drilling and dust suppression, could impact local water resources and ecosystem health, particularly in an ecologically sensitive area.

What we are doing:

- Securing permissions for water withdrawal in line with groundwater and environmental norms.
- Construction of settling tanks for treatment of mine discharge before release.

- Implementation of rainwater harvesting structures to support aquifer recharge and reduce dependency on external sources.



Key Opportunities

Despite the ecological challenges associated with mining operations, the Nadidih Iron Ore Mine presents several opportunities to contribute positively to biodiversity conservation and local ecosystem resilience. These opportunities are being realized through collaborative efforts with the Orissa Forest Department and integration of nature-positive practices into site management.

Compensatory Afforestation: We are offsetting the diversion of 89.87 ha of forest land through our compensatory afforestation initiatives. This effort not only restores ecological balance but also contributes to regional biodiversity enhancement and climate resilience.

Wildlife Conservation and Habitat Enhancement: In close coordination with the Forest Department, we have implemented a Wildlife Conservation Plan (WLCP) focused on preserving habitats for key species like the Asian Elephant and Sloth Bear. Gap plantation and the restoration of degraded patches further strengthen local biodiversity.

Human–Elephant Conflict Mitigation: Our commitment to reducing human-elephant conflict is reflected in our elephant safety measures, including solar-powered fencing, control rooms, and watch towers. These actions not only help protect wildlife but also improve community relations by reducing risks to both humans and animals.

Community Awareness and Engagement: We are conducting community awareness programs to educate local populations about biodiversity conservation, the importance of threatened species, and sustainable land use practices. These efforts help foster a culture of conservation and build long-term local support for our operations.

Wildlife Safety Infrastructure: To further protect wildlife, we have installed signage along key roads near forest areas, alerting drivers to the presence of wildlife and reducing the risk of vehicle-wildlife collisions.

Enterprise-Level Risks

Physical Risks

We recognize the critical trends and uncertainties associated with nature loss and the potential for tipping points, particularly in the context of resource use and replenishment. The risks we face, especially those related to water scarcity, landslides, wildfires, and extreme heat, directly affect our operations, worker health, infrastructure, and local communities. We are committed to managing these risks through strategic investments and continuous adaptation.

Resource Use/Replenishment



Risk:
Water Scarcity

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Chronic

Timeframe:
Medium to Long Term

Water scarcity presents significant risks to our operations, particularly in water-stressed regions. This impacts production, worker health, infrastructure integrity, and local communities. We are seeing increasing costs from the need to procure water from alternative sources and implement water-saving technologies. Water stress also has the potential to exacerbate social conflicts within surrounding communities.

Potential Financial Impact:

- **CapEx:** Investments in water infrastructure, upgrades, and water-saving technologies.
- **OpEx:** Increased costs for water procurement, maintenance, and compliance with regulatory standards.

Key Trends and Critical Uncertainties:

Almost two-thirds of our operations are located in water-stressed regions, with water scarcity becoming a medium- to long-term risk. We regularly assess water risks using tools like the WWF Water Risk Filter, WRI Aqueduct, and India Water Tool (IWT 4.0) to evaluate operational and basin risks. These assessments help identify risks related to water tariffs, withdrawal restrictions, and discharge standards. While water shortages remain an ongoing risk, the severity and timing of future water scarcity are still uncertain due to changing climate patterns.

Impact on Strategy, Business Model, and Value Chain:

- **Short Term:** We face higher costs from sourcing water during lean periods and the need for infrastructure upgrades. Proactive water-saving initiatives such as rainwater harvesting and reverse osmosis will help mitigate some of these challenges.
- **Medium Term:** We will continue investing in technologies that reduce water consumption. Areas facing the highest water stress will require ongoing adaptation to ensure business continuity and maintain good relations with local communities.
- **Long Term:** We aim to become water-positive by 2030. By improving water management and reducing dependency on external water sources, we will better manage the long-term risks of water scarcity and enhance our social license to operate.

Vedanta's Alignment:

Our water risk management framework, which includes annual risk assessments and the use of internal water policies and management standards, ensures the sustainable use of water resources. This proactive approach not only mitigates reputational risks but also positions us for long-term resilience in water-stressed regions.

Climate Change



Risk:
Landslides

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Acute

Timeframe:
Short Term

Landslides pose significant risks to infrastructure, operations, health and safety, and the supply chain. Over time, they can damage critical infrastructure such as roads, railway lines, sewage systems, and power transmission lines, leading to operational disruptions, electricity outages, and communication breakdowns. Landslides also create hazardous conditions that may require site evacuations to protect worker safety and disrupt supply chain logistics.

- Potential Financial Impact:**
- **CapEx:** Increased investment in resilient infrastructure, landslide mitigation systems, and emergency response measures.
 - **OpEx:** Higher operational costs due to routine maintenance, increased insurance premiums, and rehabilitation expenses.

Key Trends and Critical Uncertainties:

Landslides are closely linked to slope failure, which we monitor as part of our Critical Risk Management (CRM) program. We continually improve risk management controls to minimize the impact of landslides across our operations and ensure a zero-harm workplace. Climate change, particularly changes in rainfall patterns, could exacerbate landslide risks at certain sites. While specific trends are difficult to predict, precipitation changes are incorporated into our broader physical climate risk assessments.

- Impact on Strategy, Business Model, and Value Chain:**
- **Short Term:** Immediate risks include operational disruptions due to damaged infrastructure and the need for site evacuations. Landslides could delay supply chain operations, increasing repair and mitigation costs.
 - **Medium Term:** We will continue improving infrastructure resilience and implementing advanced landslide mitigation technologies, but we anticipate that landslides may still cause intermittent disruptions, leading to higher operational costs.
 - **Long Term:** We will focus on long-term investments in resilient infrastructure and mitigation systems, aiming to reduce landslide impacts over time.

Vedanta's Alignment:

We have aligned our approach to landslide risks with our broader physical climate risk assessments. By considering potential changes in rainfall patterns and other climate impacts, we are committed to enhancing resilience and mitigating landslide risks in the long term.



Risk:
Wildfire Hazard

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Acute

Timeframe:
Short to Medium Term

Wildfires pose significant risks to our operations, infrastructure, and worker health. They can damage critical assets, impair operational capabilities, and cause significant downtime. Smoke and particulate matter from wildfires can affect air quality, leading to health issues among workers and potentially slowing down operations. The need for emergency response and recovery can increase operational costs and delay project timelines.

- Potential Financial Impact:**
- **CapEx:** Investments in wildfire prevention measures, including fire-resistant infrastructure and enhanced emergency response systems.
 - **OpEx:** Higher costs due to firefighting, recovery efforts, increased insurance premiums, and operational disruptions from smoke and fire damage.

Key Trends and Critical Uncertainties

Climate change is significantly contributing to the increased risk of wildfires. Higher temperatures and altered precipitation patterns may lead to more frequent and severe wildfire events. While the exact extent and timing of these events are uncertain, we are aware of the heightened risk and have incorporated this into our climate risk analysis.

- Impact on Strategy, Business Model, and Value Chain**
- **Short Term:** Wildfire events could lead to immediate operational disruptions, infrastructure damage, and health-related issues for workers. The company will face increased firefighting and recovery costs, as well as potential delays in project timelines.
 - **Medium Term:** We will invest in fire-resistant infrastructure and improve emergency response measures to mitigate wildfire impacts, though the frequency of wildfires may still affect operations, particularly in regions prone to fire.
 - **Long Term:** We will focus on enhancing resilience through technological solutions and fire-resistant infrastructure. Our long-term strategies will include climate adaptation measures to minimize wildfire impacts on operations and ensure sustainability.

Vedanta's Alignment

We are incorporating climate change considerations into our risk analysis to better manage wildfire risks. Investments in wildfire prevention and resilience measures are ongoing, and we will continue to improve infrastructure and emergency preparedness to mitigate the impacts of future events.



Risk:
Extreme Heat

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Acute/Chronic

Timeframe:
Medium to Long Term

Extreme heat poses significant risks to our operations, infrastructure, and workforce. Elevated temperatures can disrupt equipment efficiency, damage infrastructure, and increase operational and maintenance costs. Prolonged exposure to heat can negatively impact worker productivity, health, and safety, particularly in open areas.

Potential Financial Impact:

- **CapEx:** Investments in cooling systems, structural modifications, and technological upgrades.
- **OpEx:** Increased maintenance costs, higher energy and water expenses, and additional health and safety measures.

Key Trends and Critical Uncertainties:

Extreme heat events are expected to become more frequent and intense due to climate change. Our risk assessments, based on scenarios from the Network for Greening the Financial System (NGFS), reflect the potential for increased operational costs as extreme heat events impact both worker productivity and equipment efficiency.

Impact on Strategy, Business Model, and Value Chain:

- **Short Term:** Immediate impacts include higher maintenance and operational costs due to extreme heat. Workers may experience reduced productivity in high-heat conditions, especially in outdoor areas. Temporary cooling measures may be needed to maintain operations.
- **Medium Term:** We will invest in cooling infrastructure and modify operations to manage increased risks to worker safety and equipment efficiency. This may involve higher operational expenses and investments in protective infrastructure.
- **Long Term:** We will continue to adapt to the ongoing impacts of extreme heat through resilient infrastructure and heat management technologies. Our long-term strategy includes reducing the disruptions caused by extreme heat and ensuring worker health and safety.

Vedanta's Alignment:

We are proactively addressing extreme heat risks by integrating climate change into our physical risk assessments. Our investments in cooling systems and infrastructure upgrades will help mitigate the effects of rising temperatures. Continued efforts will be needed to stay ahead of future climate risks.



Risk:
Erratic Rainfall/
Flooding

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Acute/Chronic

Timeframe:
Short to Medium Term

Erratic rainfall and flooding pose significant risks to our operations, infrastructure, and supply chain. Heavy rainfall can disrupt communication services, cause power outages, and block transportation routes, leading to operational interruptions. Flooding also increases the risk of disease outbreaks from water contamination, affecting both health and safety. Excessive flooding can cut off access to business sites, further disrupting our supply chains.

Potential Financial Impact:

- **CapEx:** Investments in flood mitigation infrastructure, facility upgrades, and repairs.
- **OpEx:** Increased costs from supply chain disruptions, maintenance, and operational interruptions.

Key Trends and Critical Uncertainties

Extreme weather events, including floods and droughts, are becoming more frequent due to climate change. These events exacerbate water stress, particularly in areas like Tamil Nadu and Rajasthan, where we operate. While the intensity and frequency of such events remain uncertain, they complicate water and infrastructure management efforts in these regions.

Impact on Strategy, Business Model, and Value Chain

- **Short Term:** Immediate impacts include transport disruptions, power outages, and health risks from flooding. We will face increased costs for repairs, maintenance, and addressing supply chain disruptions.
- **Medium Term:** In response, we will invest in infrastructure to mitigate flooding risks, such as enhanced drainage systems and flood-resistant facilities. However, recurring extreme weather events may continue to disrupt operations and supply chains.
- **Long Term:** Over the long term, we will adapt to changing weather patterns by investing in more resilient infrastructure and water management systems. Climate adaptation strategies will be essential to minimizing the impact of future floods and maintaining business continuity.

Vedanta's Alignment

We recognize the growing risks posed by erratic rainfall and flooding, especially in water-stressed regions. We are aligning our operations by investing in flood mitigation measures and improving water management systems to ensure business continuity and minimize operational disruptions. Ongoing adaptation and resilience-building efforts will be essential as extreme weather events increase.



Risk:
Tropical Cyclones

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Acute

Timeframe:
Short to Long Term

Tropical cyclones pose significant risks to our operations, infrastructure, and supply chains. Over time, cyclones can damage critical infrastructure, such as roads, power lines, and communication systems, leading to operational disruptions and safety concerns. Cyclones can also result in site evacuations, and heavy winds can disrupt supply chains, particularly at sites along coastal regions like Cairn’s offshore locations, which are vulnerable to stronger winds and cyclones along the Andhra Coast.

- Potential Financial Impact:**
- **CapEx:** Investments in resilient infrastructure, flood control systems, and emergency response technologies.
 - **OpEx:** Increased operational costs, higher routine maintenance, increased insurance premiums, and rehabilitation expenses.

Key Trends and Critical Uncertainties:

The frequency and intensity of tropical cyclones are expected to increase due to climate change, especially in coastal and offshore regions. Cairn’s onshore locations already face high water scarcity risks, and this is likely to worsen with the changing climate. Offshore sites, particularly along the Andhra Coast, are increasingly vulnerable to stronger winds and cyclone events, which could disrupt operations and increase safety risks. While cyclone patterns are difficult to predict with certainty, the potential for more severe weather events presents an ongoing challenge for us.

- Impact on Strategy, Business Model, and Value Chain:**
- **Short Term:** Immediate impacts include infrastructure damage, operational disruptions, and potential site evacuations. Cyclones may also result in supply chain disruptions, particularly in coastal areas and offshore operations.
 - **Medium Term:** We will likely focus on enhancing infrastructure resilience, such as reinforcing power transmission lines, improving flood control systems, and investing in emergency response technologies to mitigate cyclone damage. This may lead to higher operational and maintenance costs.
 - **Long Term:** Over the long term, we will focus on adapting to more frequent and severe cyclones by continuing investments in resilient infrastructure and improving disaster preparedness and recovery capabilities. This will ensure continuity of operations and reduce the financial impact of cyclones.

Vedanta’s Alignment:

We are aligning our operations with the growing risk of tropical cyclones by investing in resilient infrastructure and enhancing emergency response systems. However, ongoing efforts will be necessary to stay ahead of the increasing severity of cyclone events, particularly in coastal regions and offshore operations, to ensure long-term business continuity.

Land/Freshwater/Ocean-Use Change



Risk:
Land, Freshwater, and Sea Use Change

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Chronic

Timeframe:
Medium to Long Term

Changes in land, freshwater, and sea use can significantly disrupt our operations, particularly in regions where resource competition is increasing. Alterations in land use may lead to conflicts over land access, affecting project development and operational stability. Changes in freshwater availability can disrupt industrial processes reliant on water, and sea use changes can damage coastal infrastructure and disrupt operations. These disruptions can result in increased costs, project delays, and the need for additional resources to adapt to evolving conditions.

- Potential Financial Impact:**
- **CapEx:** Investments in infrastructure repair, maintenance, and adaptation measures.
 - **OpEx:** Increased costs due to resource competition, project delays, and disruptions to supply chains and operations.

Key Trends and Critical Uncertainties:

As climate change progresses, the availability and accessibility of natural resources like water, land, and marine areas will continue to evolve, with potential disruptions to our operations. The pace and scale of these changes remain uncertain, but increasing competition for land and freshwater is likely. Changes in land use and sea level rise could affect coastal areas and land-dependent operations, creating further uncertainty.

- Impact on Strategy, Business Model, and Value Chain:**
- **Short Term:** Immediate impacts include increased operational costs due to resource competition, and potential project delays caused by conflicts over land use or water availability.
 - **Medium Term:** Vedanta will need to adapt its strategy to manage the risks of changing land use, including securing land access and ensuring sustainable water management. The company may need to invest in infrastructure to protect coastal areas and freshwater sources.
 - **Long Term:** Over the long term, Vedanta’s strategy will focus on ensuring the sustainable use of land, water, and sea resources, aiming to reduce dependence on vulnerable ecosystems. Effective management of these resources will be essential for long-term operational stability and maintaining a social license to operate.

Vedanta’s Alignment:

We are working to align our operations with sustainable land, freshwater, and sea use practices. Proactive management of natural resources is essential to ensure business continuity, mitigate reputational risks, and address evolving environmental pressures. Ongoing adaptation strategies will be necessary to address the changing availability of these critical resources.

Pollution/Pollution Removal



Risk:
Pollution

Risk Applicability to Business Units:
Balco, Cairn, ESL, HZL, Iron Ore, TSPL, VAL, SC, VZI

Type:
Acute

Timeframe:
Short Term

Pollution, particularly from tailings management, poses significant risks to our operations, health, and community relations. Failure to manage tailings facilities properly can lead to environmental disasters, including the release of toxic residue that harms ecosystems, infrastructure, and communities. Air, water, and soil contamination can impair industrial processes, cause health issues among workers, and damage infrastructure, leading to increased operational costs and regulatory penalties.

Potential Financial Impact:

- **CapEx:** Investments in pollution control technologies, infrastructure upgrades, and compliance with regulatory standards.
- **OpEx:** Increased costs for pollution management, health and safety measures, and regulatory compliance.

Key Trends and Critical Uncertainties:

As regulatory pressure increases, we must address pollution risks, especially those related to tailings management. Improperly managed tailings facilities can lead to catastrophic environmental and reputational damage. We are committed to aligning with the Global Industry Standard on Tailings Management (GISTM) by 2025 and have already conducted risk assessments of our tailings facilities.

Impact on Strategy, Business Model, and Value Chain:

- **Short Term:** Immediate impacts include increased costs for pollution control and potential legal penalties due to non-compliance. Pollution-related health issues could strain our social license to operate, especially in local communities near our sites.
- **Medium Term:** We will continue investing in advanced pollution control technologies, particularly in managing air emissions, waste, and tailings. Regulatory compliance will drive additional costs and operational changes as we work to meet stricter standards.
- **Long Term:** Our long-term strategy will focus on achieving sustainable pollution management through innovation and continuous alignment with global standards, such as GISTM. This will help us mitigate reputational risks and maintain regulatory compliance, positioning us as a leader in environmentally responsible operations.

Vedanta's Alignment:

We have made significant strides in pollution management, including our commitment to the GISTM by 2025, alignment with global best practices in tailings management, our aim to have zero category 5 incidents related to water and having 100% fly ash utilization. Our zero-discharge facilities and investments in pollution control technologies demonstrate our commitment to minimizing environmental impacts. However, ongoing efforts to meet regulatory standards and manage pollution risks will be critical to ensuring long-term sustainability.

Transition Risks



(I) Policy

The global push to address climate change and biodiversity loss is accelerating regulatory shifts at the national and sub-national levels. In India, these transitions are manifesting through the introduction of stringent compliance frameworks such as the Carbon Credit Trading Scheme (CCTS), 2023, and the draft Greenhouse Gases Emission Intensity Target Rules, 2025. These frameworks impose binding emission intensity reduction targets on specific industrial entities, including several Vedanta sites, and introduce a domestic carbon market mechanism.

Under these proposed rules, our aluminium operations—particularly the smelters in Jharsuguda and the refinery in Lanjigarh—have been designated as Obligated Entities. These sites must progressively reduce their Greenhouse Gas Emission Intensity (GEI) or offset excess emissions by purchasing eligible carbon credit certificates from the Indian Carbon Market. These developments increase both compliance costs and the need for robust emissions tracking.

Additionally, the broader Indian policy environment continues to evolve through initiatives such as the updated National Biodiversity Strategy and Action Plan (NBSAP) and stricter enforcement of laws like the Mines and Minerals (Development and Regulation) Act. These shifts are expected to heighten regulatory scrutiny and tighten environmental standards across our operations.

Critical Uncertainties

Key uncertainties lie in the operationalisation of the Indian carbon market, including the availability, pricing, and verification of carbon credits. While GEI targets provide measurable benchmarks, they require significant planning, investment, and technological readiness to achieve. Furthermore, the financial implications of non-compliance penalties, such as Environmental Compensation imposed by the Central Pollution Control Board (CPCB), remain material risks under these new frameworks.

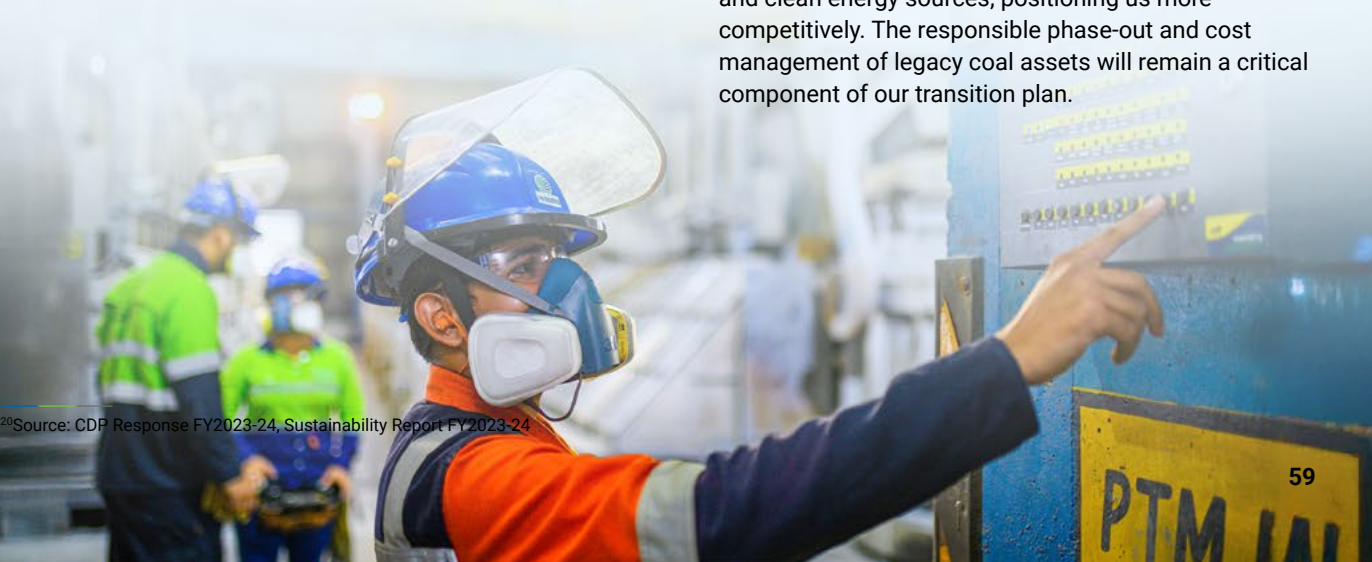
Vedanta's Alignment

We have made significant progress in aligning with India's emerging low-carbon policy landscape. Our strategic ambition is to achieve net-zero carbon emissions by 2050, supported by interim targets to reduce emissions by 25% by 2030 and to lower GHG intensity by 20% by FY25 in our metals business. As part of this effort, we are investing in 2.5 GW of renewable energy capacity by 2030, alongside broader decarbonisation and energy efficiency initiatives.

However, one of the most significant challenges is our continued reliance on coal-fired captive thermal power plants, especially at our aluminium smelters. These facilities contribute substantially to our current emissions footprint, making short-term compliance more complex and exposing us to elevated regulatory and financial risks. Although these plants are expected to be phased out by 2050, they represent a barrier to near-term emissions intensity improvements.

Impact on Strategy, Business Model and Value Chain:

- **Short Term:** We expect increased compliance costs associated with meeting GEI targets under the CCTS. Carbon market participation and low-carbon product development will be key mitigation strategies in managing regulatory exposure and preserving market competitiveness.
- **Medium Term:** As we scale up renewable energy deployment and improve energy efficiency, we anticipate both environmental and economic gains. However, full benefits may be delayed due to the continued use of fossil-based captive power.
- **Long Term:** By 2050, we aim to operate in full alignment with India's low-carbon transition agenda. Our product and energy mix will shift toward sustainable materials and clean energy sources, positioning us more competitively. The responsible phase-out and cost management of legacy coal assets will remain a critical component of our transition plan.



²⁰Source: CDP Response FY2023-24, Sustainability Report FY2023-24



(II) Market

The evolving dynamics in global markets are significantly shaped by shifts in consumer preferences, regulatory pressures, and technological advancements. Increasing demand for sustainable products, driven by both regulatory and reputational factors, is reshaping industries. This trend is particularly relevant for sectors like metals, oil and gas, and power, where market shifts toward low-carbon, nature-positive solutions are gaining momentum. In the metals and mining sector, companies are being pressured to innovate and invest in greener production methods to remain competitive. The oil and gas sector faces the challenge of declining demand for fossil fuels, requiring diversification into renewable energy and low-carbon technologies. Similarly, the power sector must adapt to market shifts toward renewable energy sources and energy efficiency solutions.

Critical Uncertainties:

The transition to sustainability introduces several uncertainties for us. While there is clear momentum toward greener products, the pace and extent of this shift remain uncertain. The demand for low-carbon products, such as our low-carbon aluminum products (Restora and Restora Ultra) and Eco Zen (low-carbon zinc), is expected to grow, but the rate of adoption across industries will depend on various factors, including regulatory developments, technological advancements, and customer willingness to pay a premium for sustainable alternatives. Furthermore, competition in the green product market is intensifying as other industry players ramp up their sustainability efforts, which may affect our market share.

Our investments in research and development (R&D), particularly in decarbonization and efficiency improvements in our aluminum business, position us strongly to respond to market changes. However, there is uncertainty around the long-term sustainability of this market shift and the scalability of new technologies and products.



Vedanta's Alignment:

We have proactively positioned ourselves as a leader in responding to market-driven transition risks. We have introduced low-carbon products like Restora and Restora Ultra to meet the growing demand for sustainable options. In addition, our Eco Zen (low-carbon zinc) aligns with the market's shift toward sustainability. Our significant investments in renewable energy, commitment to becoming water-positive by 2030, and efforts in waste recycling align with broader market preferences for environmentally sustainable products and practices.

Our R&D efforts have made us a leader in the aluminum value chain, with one of the finest setups in the industry. Notably, our innovations in optimizing the green carbon anode manufacturing process have led to reductions

in electrical resistivity, yielding significant cost savings. These initiatives further strengthen our commitment to decarbonization and operational efficiency, helping us stay aligned with market trends toward sustainability.

Impact on Strategy, Business Model, and Value Chain

- **Short Term:** We expect increasing demand for our low-carbon products, such as Restora and Restora Ultra, as more industries look to reduce their carbon footprints. Our focus on R&D and efficiency improvements will help us maintain competitiveness. However, the challenge lies in scaling these products in line with market demand and managing the competitive landscape, as other players also invest in sustainable alternatives.
- **Medium Term:** As market shifts toward sustainability continue, our strategy will focus more on innovation

and scaling up our low-carbon product offerings. Our investments in renewable energy and efficiency improvements will support long-term competitiveness. We will need to manage the risks associated with fluctuating demand for these products and the pressure to stay ahead in R&D and innovation.

- **Long Term:** Our business model will likely be dominated by sustainable products and renewable energy solutions. Our R&D efforts will continue driving decarbonization and efficiency improvements, maintaining our leadership in the market for low-carbon products. Our broader sustainability initiatives, such as our water-positive goal and waste recycling efforts, will further enhance our market position and long-term viability in an increasingly eco-conscious marketplace.



(III) Technology

The transition to a low-carbon and nature-positive economy is increasingly shaped by technological innovations across various industries. As new technologies emerge, there is a growing need for companies like us to adopt solutions that reduce environmental impacts and dependency on nature. In the metals and mining sector, the adoption of new mining technologies that reduce environmental footprints, such as more efficient water usage and waste management systems, can lead to high capital expenditures initially but long-term operational savings and compliance with environmental standards. In the oil and gas sector, transitioning to biofuels, hydrogen, and other low-carbon technologies is necessary but costly, as we seek to meet regulatory requirements and market demands for cleaner energy. Similarly, in the power sector, integrating renewable energy technologies like solar and wind requires substantial investments in grid infrastructure and storage solutions to ensure reliability and efficiency.

Critical Uncertainties

We face several uncertainties related to the large-scale deployment of new technologies. While technologies like renewable energy are available, their deployment at scale remains untested, which could slow our ability to meet greenhouse gas (GHG) reduction commitments in the short term. Other technologies, such as hydrogen-based Direct Reduced Iron (DRI) and Carbon Capture, Utilization, and Storage (CCUS), are not yet commercially viable at the scale required for widespread industry adoption. These technologies do not currently pose a significant risk to us, but their development and commercialization could shape the future landscape.

Rapid technological advancements present both opportunities and uncertainties. Breakthroughs in technology could lead to both incremental improvements and extensive changes, creating uncertainty about which technologies will become dominant and most effective for our operations. This unpredictability could influence our investment decisions and technology adoption strategies.

Vedanta's Alignment

We are committed to leveraging new technologies to meet our sustainability goals. We have set a target of using 2.5 GW of Round-the-Clock (RTC)



equivalent renewable energy by 2030, with 835 MW already secured through Power Delivery Agreements (PDAs) by FY 2024. This supports our decarbonization strategy and long-term energy transition goals.

We are also making significant progress in transforming our fleet operations, with a commitment to decarbonizing our Light Motor Vehicle (LMV) fleet by 2030 and 75% of our mining fleet by 2035 through the adoption of electric vehicles and potentially biofuels. These efforts will reduce emissions from our vehicle operations, further supporting our decarbonization efforts.

In addition, we are actively pursuing the adoption of hydrogen as a fuel and diversifying into related businesses, positioning us well to tap into emerging low-carbon technologies and future-proof our operations.

Impact on Strategy, Business Model, and Value Chain

- Short Term:** We may face challenges related to the slow adoption of large-scale renewable energy technologies and other emerging solutions, such as hydrogen and biofuels. While we are making significant progress in renewable energy procurement and fleet decarbonization, the initial costs of adopting these technologies, alongside untested scalability, could impact the pace at which we achieve our GHG reduction targets.
- Medium Term:** As we continue to invest in renewable energy and electric vehicle fleets, we will begin to see cost savings and improvements in operational efficiency. However, we must stay ahead of technological disruptions and ensure that our chosen technologies remain competitive and scalable. Continued integration of renewable energy and hydrogen adoption will be crucial to meeting our long-term decarbonization targets.
- Long Term:** Our strategy will likely be dominated by the successful integration of renewable energy technologies and the adoption of next-generation low-carbon solutions like hydrogen and CCUS. As these technologies mature and become more commercially viable, we will be well-positioned to lead in sustainable practices, minimizing environmental impact while ensuring that our operations remain efficient and competitive. Our ability to manage technological change and continuously invest in new solutions will define our long-term business model and market position.



(IV) Reputation

Changes in the perception of our environmental impacts—whether real or perceived—can significantly affect our reputation. Reputational risks include the potential loss of our social license to operate due to negative views on environmental practices, which can erode stakeholder trust and community support. Additionally, a slow transition to greener practices may lead to reputational damage and competitive disadvantages as industry standards evolve. This is particularly critical in sectors like metals and mining, oil and gas, and power, where public perception of environmental responsibility plays a key role in securing long-term operational and financial success.

In the metals and mining sector, companies with poor environmental records may face increased scrutiny from stakeholders, leading to the loss of their social license to operate, making it difficult to secure financing. In the oil and gas sector, negative perceptions regarding environmental impacts may lead to divestment by investors, pressure from activists, and increased regulatory oversight. Similarly, in the power sector, companies that are perceived as lagging in the transition to renewable energy face reputational damage, which can result in the loss of customers and investor confidence.

Critical Uncertainties

We face several uncertainties related to reputational risks. One major uncertainty is the timing and stringency of emerging regulations, particularly around carbon pricing and environmental taxes. We anticipate that carbon pricing regulations could impact around 5% of our overall emissions initially, with cost impacts of 2-3%. However, the exact timing and implementation of these pricing mechanisms, such as carbon taxes, emissions trading schemes (ETS), or coal cess—particularly in India and international markets like the Carbon Border Adjustment Mechanism (CBAM)—remain uncertain. These regulatory changes could significantly influence our cost structure and reputation, especially as pressure mounts for stronger environmental action.

Another critical uncertainty lies in the speed and intensity with which investors, customers, local communities, and the general public demand stronger environmental action. Negative perceptions—whether real or perceived—can quickly damage our social license to operate, which is crucial for continued operations and access to capital. This risk is particularly high in areas with past environmental controversies, such as the Tuticorin plant, where we must rebuild trust and demonstrate a genuine commitment to

environmental responsibility in order to maintain our social license and secure future growth.

Vedanta's Alignment

We have demonstrated a strong commitment to aligning with global expectations regarding environmental responsibility. We have set ambitious sustainability targets and improved our ESG ratings, including a CDP Water A- rating, which reflects our commitment to water management and sustainability. We are also increasing our focus on transparent reporting in line with frameworks like TCFD and TNFD, ensuring that our stakeholders are well-informed about our climate and environmental strategies.

We have introduced low-carbon products, such as Restora and Restora Ultra (low-carbon aluminum) and Eco Zen (low-carbon zinc), which align with the growing demand for greener alternatives in the market. In addition, we have established a Board-level ESG Committee and appointed dedicated management roles to address sustainability issues, demonstrating our commitment to embedding ESG principles at the core of our operations.

Impact on Strategy, Business Model, and Value Chain

- **Short Term:** In the short term, we will need to carefully manage our reputation, especially as emerging environmental regulations and public demand for sustainability become more prominent. The introduction of low-carbon products and improved ESG reporting

will help us address these concerns and align with stakeholder expectations. However, we must act quickly to demonstrate our environmental commitment, particularly in areas with past environmental controversies.

- **Medium Term:** Over the medium term, Vedanta's continued investment in sustainability initiatives, including decarbonization and community engagement, will help mitigate reputational risks. However, the company must continue to rebuild trust in areas like Tuticorin to maintain its social license to operate. The growing demand for transparent sustainability reporting and stronger environmental actions from stakeholders will require Vedanta to stay ahead of industry standards and public expectations.
- **Long Term:** In the long term, Vedanta's reputation will largely depend on its ability to meet ambitious sustainability targets and maintain strong relationships with stakeholders, including local communities. As the company continues to decarbonize and invest in low-carbon technologies, its reputation as an environmentally responsible company will be crucial for securing future growth and accessing capital. A strong reputation for environmental leadership will also position Vedanta well in an increasingly eco-conscious marketplace.



Financial Implications of Nature-related Risks and Opportunities

Category and Nature	Risk	Financial Impact Contributors	Time Horizon
Physical Acute	Water Scarcity	Investment in water infrastructure, community spends on water, fines, and production delays	Medium, Long
Physical Acute	Pollution (Air Emissions/ Tailings/ Wastewater)	Spending on FGD devices Costs of operational disruptions, compensation, fines, rebuilding, and disruptions, Revenue generation opportunities from waste to wealth, R&D investment at risk if innovations don't perform as expected	Medium, Long
Physical Acute/ Chronic	Climate-related Disasters	Investment in emission reduction and energy efficient technology	Short, Medium
Physical Chronic	Land, Freshwater, and Sea Use Change	Cost of fines, compensation	Medium, Long
Transitional	Policies and Compliance	CBAM impacts on Aluminium, CAPEX for mitigation activities, impact of carbon taxes	Medium, Long
Transitional	Market	Price (metal, oil, ore, power, etc.), currency and interest rate volatility	Medium
Transitional	Technology	R&D investment, Enhancement in revenue from AI	Medium, Long

Our financial performance is increasingly shaped by our exposure to nature-related risks and our proactive response to emerging environmental opportunities. Our financial planning integrates these factors through a combination of operational cost management, strategic capital investments and asset portfolio adjustments.

Strategic Investments and Capital Allocation

	Renewable Energy	Water Management	Waste Management	Pollution Control
Investment Focus	2.5 GW Integration by 2030	Rainwater harvesting and wastewater recycling	Pollution control and resource efficiency	Fumer based recovery technologies
Technology	Low-carbon technologies (biomass, efficient systems)	Efficient water use technologies	Dry Tailing Plant, Paste Fill Technology	Low-cost fumer process
Specific Actions	Integrating renewable energy into operations	Scaling water efficiency across sites	Establishing TSF standards, Tailings Management Policy	Repurposing jarosite for cement manufacturing
Benefits	Reducing emissions, strengthening energy security	Achieving net water positivity	Reducing surface tailings disposals, enhancing mine safety	Enhancing metal recovery, promoting circular economy

Strategic Investments

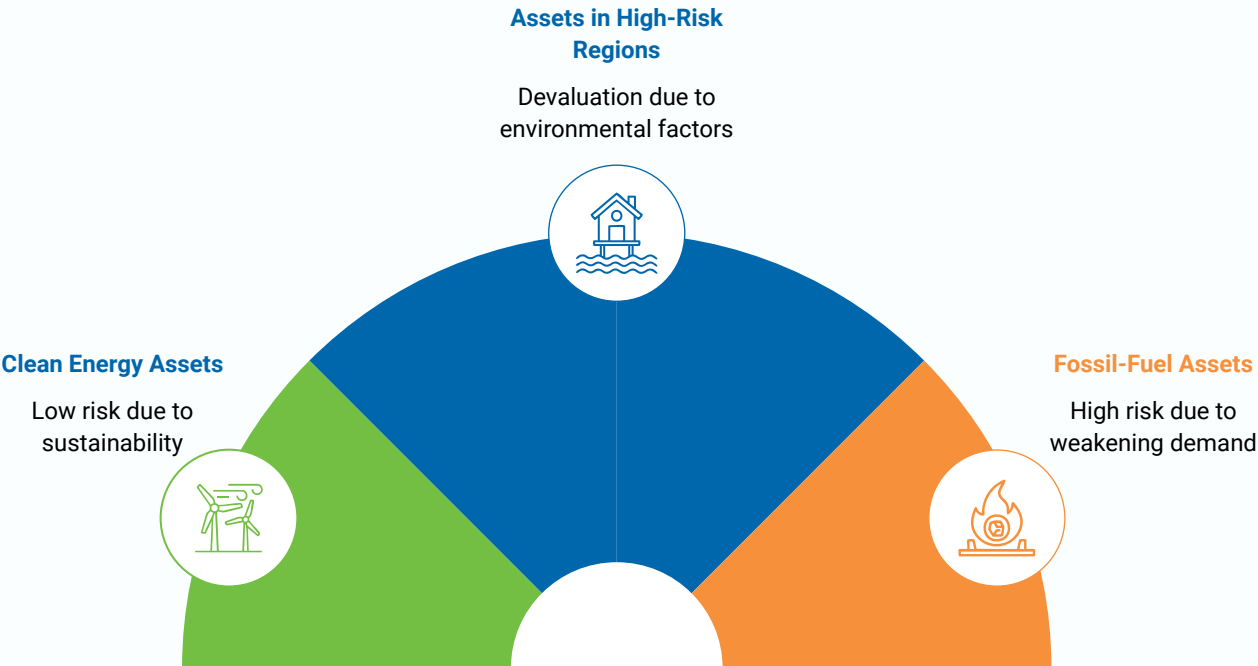
To address nature-related risks and advance our long-term sustainability goals, we are making targeted capital investments across renewable energy, water stewardship, waste management, and pollution control. In addition to our 2.5 GW renewable energy integration commitment, we are scaling technologies like biomass co-firing and efficient systems to reduce emissions and strengthen energy security.

Our water infrastructure upgrades—including rainwater harvesting and wastewater recycling—are enabling us to progress towards net water positivity across sites.

At Hindustan Zinc Limited (HZL), advanced technologies such as the Dry Tailing Plant and Paste Fill are recovering over 80% of process water while improving mine safety. In line with global benchmarks, we are establishing Tailings Storage Facility (TSF) standards and implementing a group-wide Tailings Management Policy.

To close the loop on waste, we are piloting low-cost fumer-based metal recovery at the Dariba smelting complex. This process enhances silver yields and repurposes jarosite waste into cement, exemplifying circularity in industrial resource use.

Asset Portfolio Implications

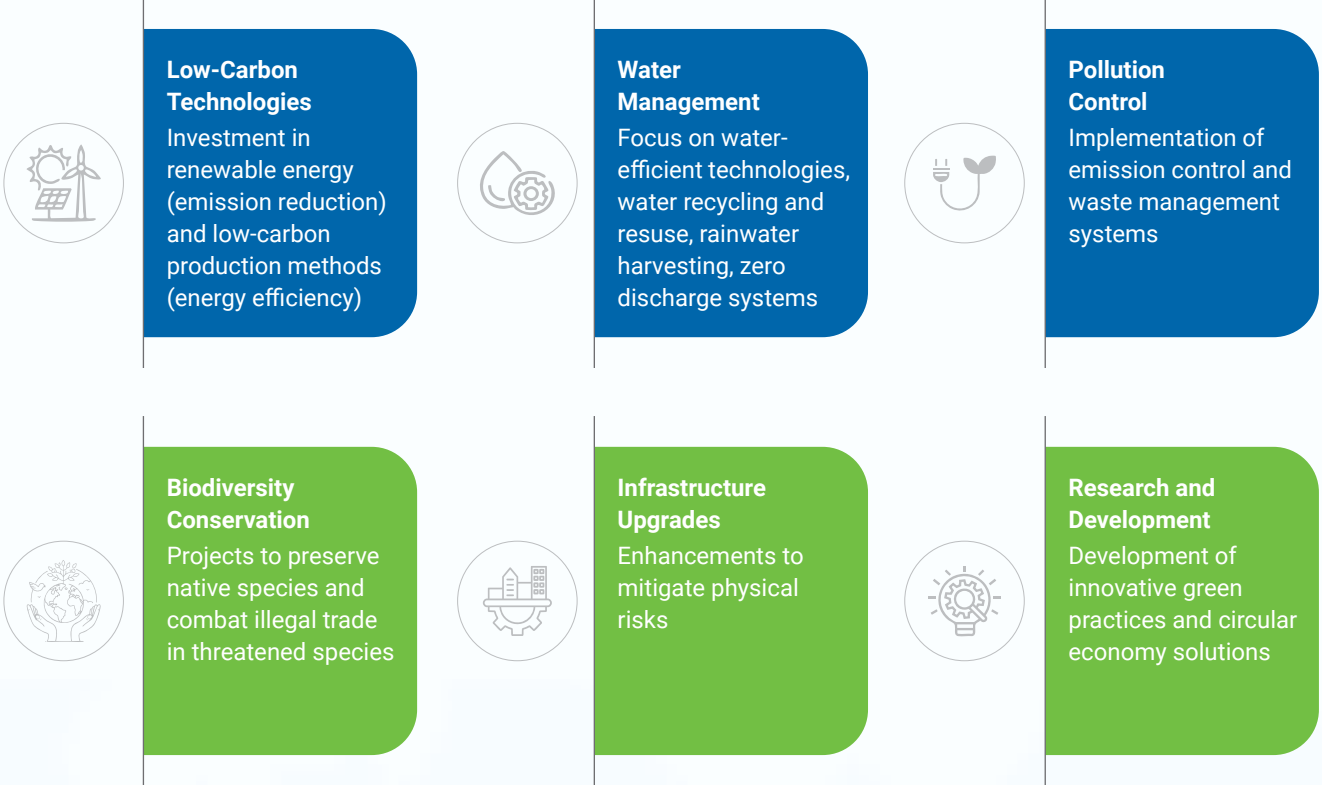


Asset Portfolio Implications

Nature-related risks are playing a growing role in shaping our asset strategy. We are actively assessing the phased exit from fossil-fuel assets considering weakening demand, evolving carbon regulations, and shifting investor expectations—aligning our portfolio with clean energy and low-carbon transition goals.

At the same time, assets situated in environmentally vulnerable regions—exposed to water stress, flooding, or heat extremes—are being re-evaluated for their long-term viability. Where adaptation costs outweigh returns, such assets may face devaluation or early retirement. These considerations are now integral to our capital allocation, portfolio resilience, and future investment planning.

Anticipated Investments



Anticipated Investments at Vedanta

Anticipated Financial Effects

We anticipate the following effects on our revenues, expenses, cash flows, asset and liability values and funding sources over the short, medium and long term due to nature-related risks and opportunities:

 Financial Aspect	 Short-Term (1-3 years)	 Medium-Term (3-10 years)	 Long-Term (10-25 years)
 Revenues	Positive effects Initiatives towards sustainable products like low-carbon aluminium (Restora and Restora Ultra) could start to gain traction, potentially opening new revenue streams. Negative effects Potential disruptions due to acute physical risks like landslides, wildfires, and erratic rainfall could lead to temporary operational slowdowns, impacting production and sales. Transition risks, particularly reputational risks like media scrutiny, could indirectly affect customer trust and demand.	Positive effects Continued focus on sustainable practices and low-carbon products may enhance market competitiveness and potentially increase revenue as consumer preferences shift. Negative effects However, increasing water stress in some operational areas could lead to production constraints and revenue losses if mitigation measures are insufficient. The decline in demand for traditional fossil fuels (for the oil and gas business) could begin to impact revenues.	Positive effects Businesses aligned with sustainability and resource efficiency may see increased demand and revenue growth. Successful implementation of circular economy practices and waste-to-wealth programs could contribute to new revenue streams. Negative effects Conversely, a shift towards a low-carbon economy and potential carbon taxes could further impact revenues from traditional, carbon-intensive operations.
 Expenses	Operating expenses are expected to rise due to increasing costs for water, energy, physical risk maintenance, pollution control, health and safety, and regulatory compliance. CapEx will also grow with investments in wildfire prevention and pollution management systems.	Costs related to water, pollution control, and climate adaptation will continue to increase, alongside capital investments in renewables, efficiency, and resilient infrastructure. Biodiversity conservation and offsets near sensitive habitats will further add to expenses.	Environmental management and resource scarcity will drive higher operating costs, including site closure and rehabilitation with biodiversity components. Carbon pricing may add pressure, though efficiency and circularity could yield long-term savings.
 Cashflows	Cashflows may decline due to operational disruptions and rising OpEx and CapEx from physical risks and sustainability investments.	Ongoing spending on decarbonization and biodiversity, along with market and resource pressures, may strain cashflows unless offset by cost savings and sustainable revenue.	Long-term cashflows hinge on a successful transition to sustainability; failure to adapt could result in losses, while proactive investment may enhance resilience. Post-closure costs will also impact future cashflows.
 Asset & Liability Values	Extreme weather and regulatory risks may impair assets and increase liabilities, while green investments can boost asset value.	Fossil fuel and water-dependent assets may face devaluation, with rising liabilities from remediation and biodiversity offsets.	Sustainable assets may gain value, while stranded assets risk write-downs. Long-term environmental liabilities require careful management.
 Funding Sources	Higher CapEx and revenue risks may increase reliance on external funding, with capital access becoming costlier for companies with high nature-related risks.	Green financing may become more accessible, while traditional funding could tighten for sectors slow to transition.	Long-term funding will favour ESG leaders with strong resilience to nature-related risks and access to sustainable finance.

Financial Planning Aligned with Nature-related Risks and Opportunities

We integrate nature-related risks and opportunities into our financial planning framework to ensure long-term business resilience and sustainability. We conduct comprehensive risk assessments focused on climate change, water scarcity, and biodiversity loss, using advanced tools such as the WWF Biodiversity Risk Filter and WRI Aqueduct. These insights help us identify and prioritize material risks across our operations, supply chains, and communities based on their potential financial impact.

We use scenario analysis, including five reference pathways from the NGFS, to model future climate and environmental conditions. This enables us to assess potential financial outcomes under different transition trajectories and align our response strategies accordingly.

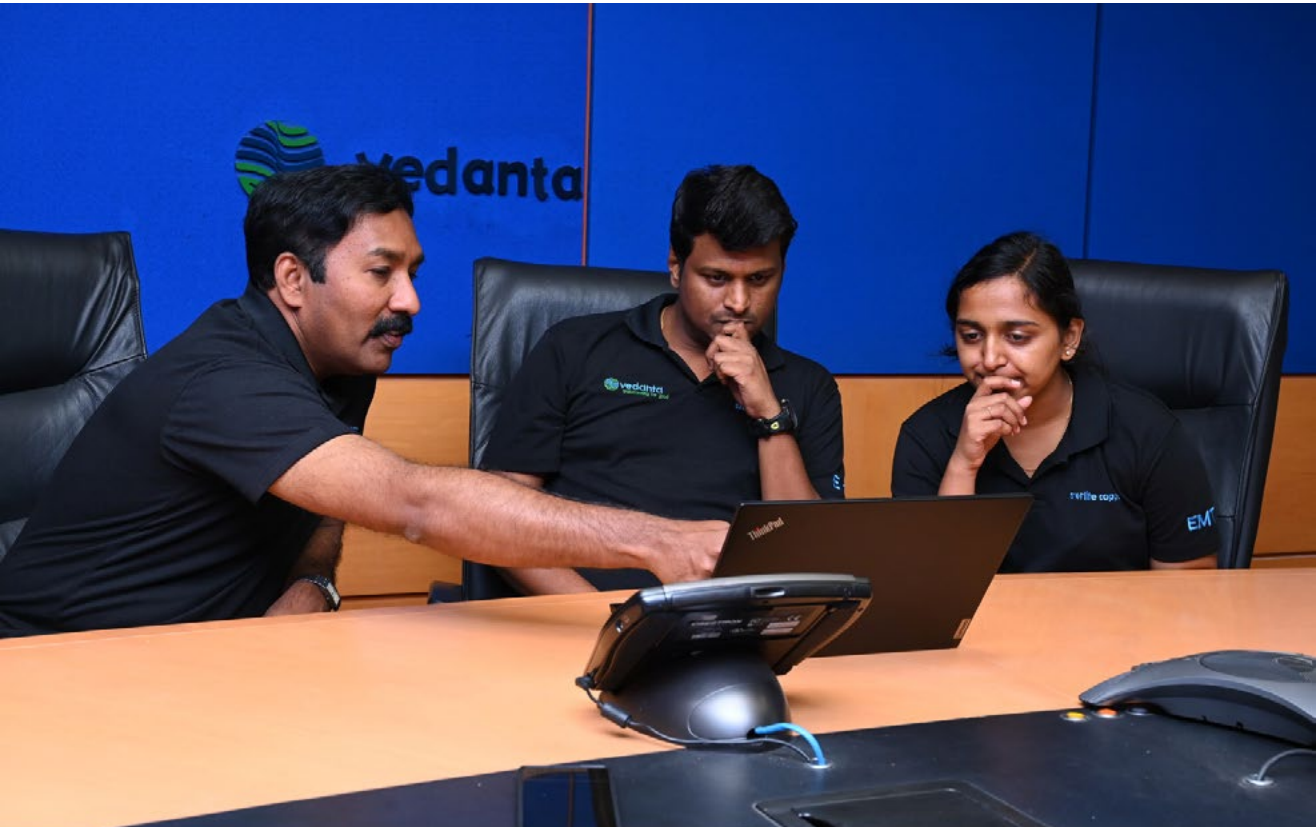
Nature-related considerations are embedded in our business strategy, anchored in our 'Transforming for Good' vision. This alignment is reflected in financial decisions, including capital and operational expenditure planning. Our capital investments focus on renewable energy, low-carbon technologies, water management, and biodiversity conservation, aiming to reduce exposure to environmental risks while tapping into opportunities such as the growing demand for sustainable metals. Operational expenses account for water procurement, pollution control, and waste management, with long-term efficiency gains expected to offset near-term cost increases.

In our financial forecasting, we incorporate both risks and revenue opportunities. While fossil fuel-related segments may face downward pressures, we anticipate growth in demand for low-carbon and sustainable products. We conduct financial impact assessments to quantify potential costs arising from physical risks, regulatory non-compliance, and disruptions to business operations.

Performance indicators related to water, emissions, and biodiversity guide our financial planning and investment decisions. Targets such as achieving net water positivity by 2030 and Net Zero Carbon by 2050 drive resource allocation and strategic focus. Meeting these goals will also enhance our ESG profile, improving our access to diversified and lower-cost funding.

In managing assets and liabilities, we evaluate the potential impacts of nature-related risks on asset values and plan accordingly—such as divesting fossil-fuel-aligned assets or investing in more resilient infrastructure. Liability planning includes provisions for environmental remediation, clean-up costs, and regulatory penalties.

Finally, our financial planning is informed by an annual business risk assessment that incorporates external environmental, social, and regulatory developments. This helps us remain responsive to policy shifts, market dynamics, and stakeholder expectations, reinforcing our commitment to sustainable value creation.



04

Risk and Impact Management



Identifying Nature-related Dependencies, Impacts, Risks and Opportunities

We employ a robust and evolving process to identify and assess nature-related dependencies, impacts, risks, and opportunities that may materially affect our organisation. This approach is grounded in principles of double materiality and aligned with international frameworks and evolving regulatory expectations.

Materiality Definitions and Assessment Approach:

We conduct an annual materiality assessment to determine sustainability and ESG issues of strategic importance. In FY2024, we adopted a double materiality lens, assessing both the impacts of our operations on nature and society (impact materiality) and the reciprocal risks and opportunities posed by environmental and social change to our financial performance (financial materiality). Substantive effects are defined through both qualitative and quantitative criteria. For risks, we set a material threshold at a 1–10% decrease in EBITDA. For opportunities, we conduct scenario and sensitivity analyses, considering a deviation in at least 75% of worst-case scenarios, with a 10–20% impact on internal rate of return (IRR) considered significant.

Location-Specificity:

Recognising the geographically varied nature of environmental risks, our assessments apply a high degree of location specificity. Site-specific, local, sub-national, and national-level assessments are conducted. Tools such as spatial data analysis, Biodiversity Management Plans (BMPs), and stakeholder engagement inform these evaluations. Many site assessments also align with IFC Performance Standard 6 (PS6), incorporating Critical Habitat thresholds and biodiversity Net No Loss (NNL) targets.

Time Horizons Considered:

We evaluate nature-related issues over multiple timeframes: short-term (1–3 years), medium-term (4–10 years), and long-term (11–25 years). Climate-related scenario analysis is conducted using RCP 4.5 and RCP 8.5 pathways over two time periods (2020–2039 and 2040–2059) to assess how risks such as floods, droughts, heatwaves, and cyclones may evolve.

Consideration of Ecological Thresholds and Tipping Points:

Vedanta integrates ecological thresholds into site-specific assessments, particularly through BMPs that assess habitat conditions within project areas of influence. BMPs include mitigation actions and restoration targets that align with quantitative thresholds defined in IFC PS6, with a goal of achieving biodiversity NNL.

Frequency of Assessment:

We update our enterprise risk assessments annually, with quarterly reviews conducted by our Board-level ESG Committee and the Audit & Risk Management Committee. Site-level environmental risk and opportunity assessments are conducted at least every three years, while operational water management plans are reviewed and updated annually. Materiality assessments are refreshed annually, with the most recent review completed in FY2024.

Integration of Policy and Regulatory Changes:

We proactively monitor and evaluate existing and emerging policy and regulatory developments related to climate and nature. This includes international frameworks (e.g., EU Green Deal), national-level changes (e.g., India's revised National Biodiversity Strategy and Action Plan, Mines and Minerals (Development and Regulation) Act), and regional frameworks (e.g., African Mining Vision). These developments are factored into our annual risk assessment process, particularly regarding permitting constraints, compliance costs, and reputational considerations.





Risk Framework and Monitoring Mechanisms

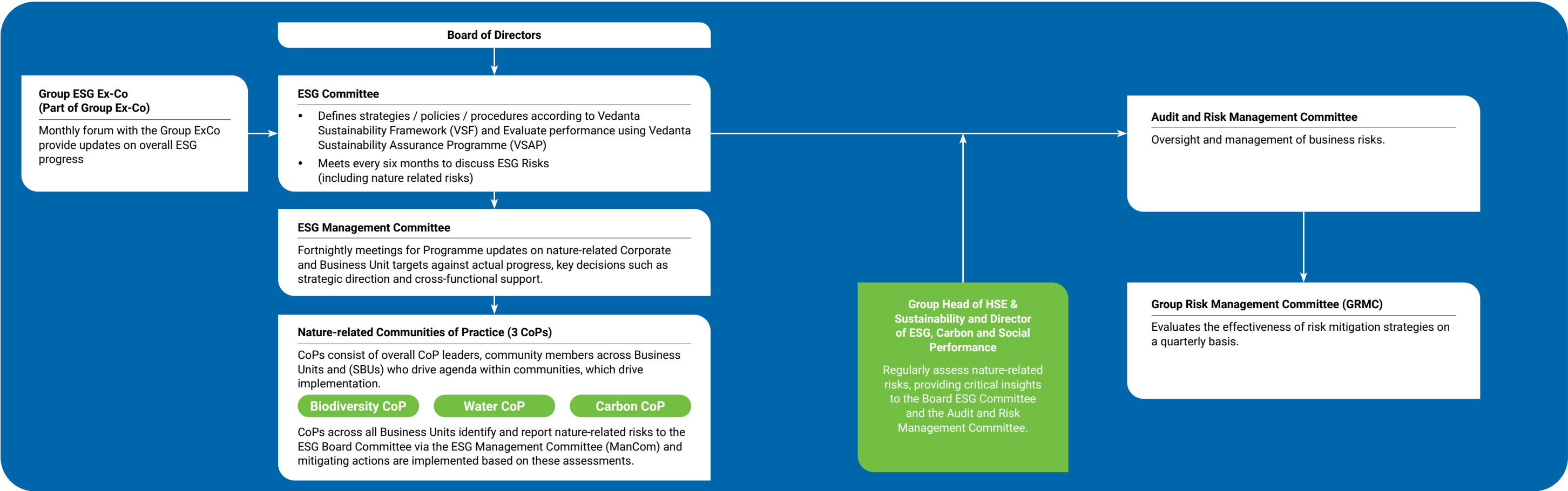
Oversight on Nature-related Risks at Vedanta

Our approach to overseeing nature-related risks is underpinned by a multi-tiered governance framework, ensuring effective integration into Vedanta’s broader risk management and sustainability efforts. The Board of Directors provides strategic oversight and seeks quarterly updates from the Board-Level ESG Committee, which includes the Group CEO, independent directors, and senior management. This committee meets biannually to review and manage climate and nature-related risks, ensuring the execution of decisions made by the Board, monitoring performance against Vedanta’s sustainability targets, and providing strategic guidance on mitigation strategies. Additionally, the ESG Committee advises on the adoption and implementation of policies and governance frameworks related to biodiversity and nature risk management.

Supporting these efforts are the Audit and Risk Management Committee, which identifies changes in risk exposure and ensures the adequacy of internal controls, and the Group

Risk Management Committee (GRMC), which evaluates the effectiveness of risk mitigation strategies on a quarterly basis. These bodies work in tandem to provide continuous oversight and timely interventions when necessary.

At the operational level, our risk management process is further strengthened by the ESG Management Committee (ManCom), which includes representatives from the Nature-related Communities of Practice (CoPs) focused on Biodiversity, Water, and Carbon. These CoPs, consisting of leaders from various business units, play a key role in identifying and managing nature-related risks. They provide valuable insights to the Group Head of HSE & Sustainability and the Director of ESG, Carbon, and Social Performance, who regularly assess nature-related risks and report critical findings to the Board and relevant committees. This ensures a thorough and cohesive approach to managing nature-related risks, with continuous updates provided to both the Board and the ESG Committee. By incorporating input from these CoPs, we ensure that the identification, assessment, and response to nature-related risks is both holistic and aligned with our strategic objectives.



Nature-related Risk Oversight at Vedanta

Assessing Magnitude and Likelihood of Potential Effects:

To assess the magnitude of nature-related risks and opportunities, we apply financial thresholds linked to potential EBITDA impact and IRR deviation, supplemented by scenario and sensitivity analyses. The likelihood of occurrence is evaluated at prioritised sites using qualitative classifications (e.g., likely, almost certain), supported by operational evidence and data from tools like the WWF Water Risk Filter. These assessments consider not only the inherent environmental hazard but also the capacity of our management systems in place, aligning risk ratings with both exposure and preparedness.

Linking Risks and Opportunities to Dependencies and Impacts:

We use the Evaluate and Assess phases of the LEAP framework to understand how dependencies on nature

(e.g., freshwater, ecosystem services) and impacts (e.g., land degradation, pollution) translate into potential financial or operational outcomes. Tools like ENCORE, IBAT, and WWF’s Biodiversity and Water Risk Filters are used to link ecosystem dependencies and stressors to tangible risks and opportunities, informing our strategic and site-level responses.

Prioritisation in Decision-Making:

Risks and opportunities are prioritised based on relevance to our business, speed of onset, and current mitigation strength. To ensure coherence, we conduct an internal review to confirm that ESG risks identified within the ERM framework align with high-priority material topics. Our materiality matrix maps stakeholder input and business relevance using dual axes—impact on business and strategic alignment—to categorise issues by priority and guide focused management responses.

Data Quality and Methodological Approach

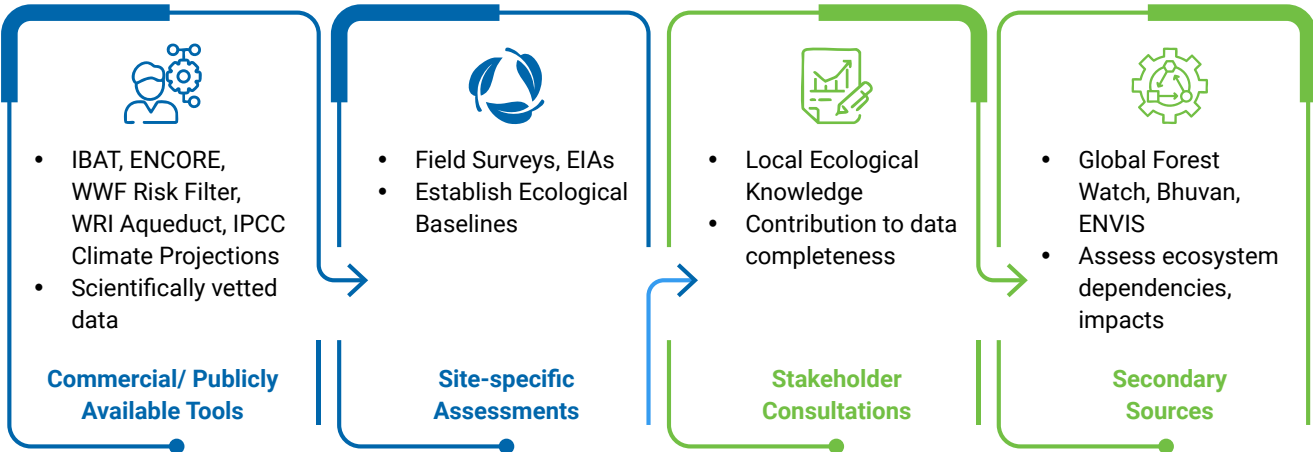
At Vedanta, we use a multi-tiered approach to ensure the quality and relevance of data in assessing nature-related risks and opportunities. Our approach combines site-specific assessments, global datasets, and stakeholder consultations for a robust, validated evidence base.

We rely on commercially available tools like IBAT, ENCORE, WWF Risk Filters, WRI Aqueduct, and IPCC Climate Projections to guide our landscape-level assessments, ensuring alignment with frameworks such as TNFD and NGFS.

On-site, we conduct field surveys, EIAs, and annual independent audits through the Vedanta Sustainability Assurance Program (VSAP) to establish baselines and monitor performance. Stakeholder consultations provide local ecological knowledge, enhancing data accuracy.

Where direct data is unavailable, we use secondary sources like Global Forest Watch, Bhuvan, and ENVIS for ecosystem assessments, supported by tools like the WRI Ecosystem Service Review and LEAP framework to evaluate impacts and dependencies.

Data Quality and Methodological Approach

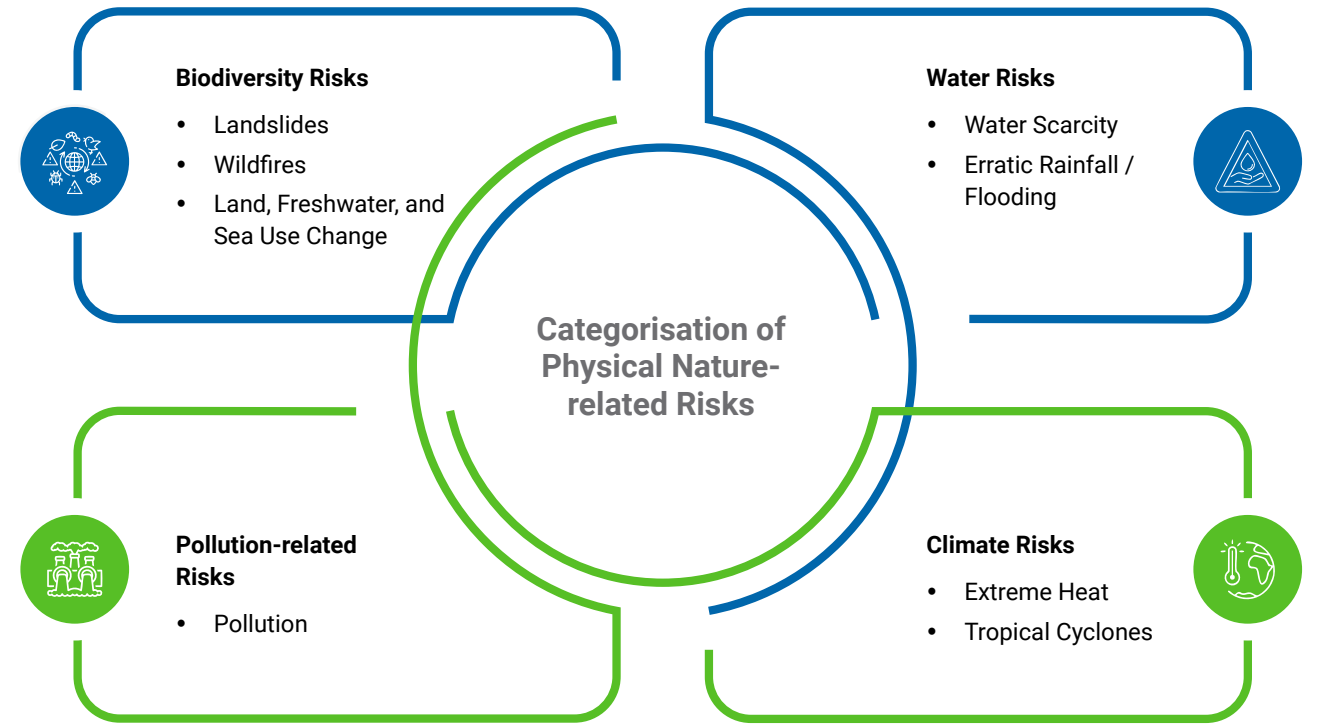


Data Quality and Methodological Approach

Identification, Categorisation and Assessment of Physical Nature-related Risks

We recognise that physical risks stemming from nature loss and climate change are often interconnected. However, for clarity and more effective risk management, we categorise these risks into four broad themes: Biodiversity

Risks, Water Risks, Climate Risks, and Pollution-related Risks. This thematic grouping allows us to apply tailored assessment tools, methodologies, and mitigation strategies suited to the nature of each risk type.



Categorisation of Physical Nature-related Risks

The eight physical risks identified through our nature-related assessments are distributed across these four categories. This classification supports focused analysis, clearer accountability, and integration into business unit-level action plans. Each category is underpinned by distinct processes for identification and assessment, ensuring that risk evaluation remains context-specific, science-based, and aligned with our enterprise risk management and sustainability frameworks.





Biodiversity Risks

We employ a four-stage, site-specific process to identify and manage biodiversity-related risks, aligned with regulatory requirements and international standards such as IFC Performance Standards and the TNFD LEAP framework. This process ensures biodiversity considerations are embedded from project initiation through to implementation and monitoring.

Stage 1: Biodiversity Risk Screening

All our assets undergo an initial biodiversity screening to identify sensitive habitats and species that could be directly or indirectly impacted by our operations. This includes assessments within a 10 km radius of sites and screening for Key Biodiversity Areas (KBAs) and Protected Areas (PAs) within 50 km using tools such as the Integrated Biodiversity Assessment Tool (IBAT). We also use tools like the Species Threat Abatement and Restoration (STAR) tool to identify threatened species and priority areas for conservation or restoration. This stage involves a preliminary evaluation of impacts based on our Technical Standard on Biodiversity Management.

Stage 2: Dependencies & Impact Assessment

We conduct a more detailed biodiversity dependencies and impact assessment to determine the severity and

likelihood of risks within the project's area of influence. This process integrates desk-based research, field surveys, and ecosystem dependency assessments, identifying interactions between our operations and ecological features. We also engage in stakeholder consultations to capture local ecological knowledge and socio-environmental dynamics. Sites are then categorised by risk, with potential implications for achieving No Net Loss (NNL) outcomes.

Stage 3: Biodiversity Management Plan (BMP)

Based on the technical assessment outcomes, we develop a BMP for each site. The BMP outlines the mechanisms to mitigate identified impacts, support conservation actions, and manage ecosystem services critical to operational sustainability. The plan includes actions specific to ecosystems most likely to be affected or depended upon by our activities.

Stage 4: Implementation and Monitoring

Customised biodiversity and ecosystem service management protocols are developed and implemented at each site. These include ongoing monitoring of habitat condition, species trends, and ecosystem services, with the flexibility to adapt actions based on observed changes. Restoration initiatives guided by the STAR-T and STAR-R frameworks are prioritised in areas of high threat or conservation value.



Water Risks

We recognise the critical role that water plays in both our operational continuity and maintaining our social license to operate. Given that nearly two-thirds of our operations are in water-stressed regions, understanding and managing water-related risks is essential for our sustainable operations and long-term business success. To ensure comprehensive water risk management, we conduct regular assessments across our business units, covering dependencies, impacts, and evolving regulatory and social contexts.

Stage 1: Basin Risk Assessment

We conduct a Basin Risk Assessment to evaluate water availability, quality, and related ecosystem services at both the regional and operational levels. Key tools we use include:

- WWF Water Risk Filter: Assesses both basin and operational water risks, integrating climate and socio-economic scenarios.
- India Water Tool (IWT): Focuses on water risks in India, identifying interventions and planning strategies.
- WRI Aqueduct: Provides a composite index of water-related risks, leveraging hydrological modelling and remote sensing.

This assessment helps us identify physical risks like water scarcity, flooding, and water quality concerns, as well as regulatory risks related to governance, management, and infrastructure.

Stage 2: Operational Risk Assessment

In addition to basin-level assessments, we evaluate water risks at the operational level to ensure compliance and mitigate reputational damage:

- Reputational Risk: Our internal policies and management standards are used to track and address any deviations in water management practices.
- Compliance Risk Assessment: We regularly assess water tariffs, withdrawal restrictions, discharge standards, and discharge tariffs to identify the extent and likelihood of their impact on our business and compliance requirements.

Risks Considered

- Physical Risks: We focus on water scarcity, flooding, water quality degradation, and the disruption of ecosystem services that support our operations.
- Regulatory Risks: We evaluate compliance with local and international water regulations, ensuring that we meet environmental standards and avoid penalties.
- Reputational Risks: We assess stakeholder perceptions regarding water usage, including cultural and biodiversity concerns, and the risk of media scrutiny or community conflicts.
- Through these comprehensive assessments, we ensure our water management strategies are adaptive, effective, and aligned with both our operational needs and external regulatory demands.





Climate Risks

We employ a structured, staged process to identify, assess, and address climate-related risks, integrating scenario analysis, transition pathways, and targeted response measures to mitigate climate change impacts across our business units. For more in-depth information, please refer to our Vedanta Climate Action (TCFD) Report FY 2025.

Stage 1: Scenario Analysis and Transition Pathways

We conduct comprehensive scenario analysis using five NGFS reference scenarios, evaluating a range of potential climate futures (orderly, disorderly, and hothouse world). These scenarios consider key socio-economic drivers and food/energy demand patterns, helping us assess the potential impacts of climate change and determine adaptive strategies. This stage provides the foundation for assessing climate risks across different transition pathways.

Stage 2: Impacted Business Units and Implications

The next stage involves evaluating the potential climate risks and their implications for specific business units. Based on the scenario analysis, we have identified varying levels of impact across our operations:

- Low Impact: Balco, VAL, ESL, VZI (across short, medium, and long terms)

- Medium Impact: TSPL (medium term)
- High Impact: Cairn (long term)

This stage ensures that we understand the specific vulnerabilities of each business unit to climate risks, helping us tailor response measures accordingly.

Stage 3: Response Measures

Once the risks and impacts are assessed, we have developed comprehensive response measures to mitigate climate risks and reduce emissions. Key initiatives include:

- Renewable Energy Goals: Achieving 2.5 GW of renewable energy capacity by 2030 and reducing absolute emissions by 25% from a 2021 baseline.
- Operational Efficiency: Enhancing turbine efficiency, adopting biomass co-firing in thermal power plants, and sourcing renewable energy across all facilities.
- Low-Carbon Products: Production of low-carbon aluminium products like Restora and Restora Ultra.
- Sustainable Infrastructure: Installing solar panels and transitioning to electric vehicles to reduce emissions.

Stage 4: Monitoring and Adaptation

We continuously monitor climate risks and the effectiveness of response measures to ensure they remain aligned with evolving climate scenarios. This stage includes tracking progress against renewable energy targets, emissions reduction goals, and the operationalisation of low-carbon products along with community engagement measures and sustainable infrastructure initiatives.



Pollution-related Risks

We are committed to preventing land and water contamination, managing air emissions, and ensuring sustainable waste and tailings management across our operations. We adopt a systematic approach to identify, assess, and mitigate pollution-related risks, including air quality, waste management, and tailings storage.

Air Emissions & Quality

Stage 1: Environmental and Social Impact Assessments (ESIA)

We conduct comprehensive ESIA for all projects and operations to identify potential sources of air pollution. This stage includes:

- Baseline air quality studies to assess current air conditions.
- Predicting future air quality impacts based on project activities.
- Identifying specific pollutants and receptors to understand exposure pathways and potential health/environmental impacts.

Stage 2: Regulatory Compliance

Ensuring compliance with local, national, and international air quality regulations is critical. This stage involves:

- Identifying and complying with relevant air quality regulations and standards.
- Regularly updating compliance requirements to reflect legislative changes and best practices in air pollution control.

Waste Management

Stage 1: Risk Assessments

Vedanta evaluates the environmental and health risks associated with waste generation and disposal, focusing on:

- Identifying high-risk waste streams (e.g., hazardous waste) and assessing their impacts.
- Prioritizing mitigation measures to manage and reduce risks.

Stage 2: Regulatory Framework

Compliance with waste management regulations is essential, and we ensure it aligns with:

- Regulations on handling, storage, transportation, and disposal of hazardous and non-hazardous waste.
- Updating waste management practices in line with changing regulations and industry standards.

Stage 3: Lifecycle Assessments

Lifecycle assessments (LCAs) are conducted to evaluate the long-term environmental impact of waste. The findings help:

- Inform waste reduction strategies.
- Improve resource efficiency and recycling efforts, reducing the environmental footprint of operations.

Tailings Management

Stage 1: Site Selection and Design

We carry out a thorough assessment of potential sites for Tailings Storage Facilities (TSFs), including:

- Considering geological, hydrological, and environmental factors.
- Designing TSFs to minimize environmental impacts and ensure structural stability.

Stage 2: Regulatory Compliance and Best Practices

We follow national regulations and international best practices for tailings management, including:

- Adhering to the Global Industry Standard on Tailings Management (GISTM).
- Regularly updating practices to incorporate the latest regulatory standards and innovations.

Stage 3: Stability Assessments

We perform regular stability assessments on TSFs to ensure their safety and structural integrity:

- Geotechnical evaluations and safety factor calculations are carried out.
- Ongoing monitoring and reporting of anomalies or potential risks, ensuring timely mitigation and intervention.



05 Metrics and Targets

Metrics Used to Assess Nature-Related IDRO*

Impact Driver
Climate change

Indicator
GHG emissions

Disclosure for FY 2025
Total GHG emissions (Scope 1, 2, 3) - (Million tCO₂e)
112.7

Breakdown of GHG Emissions as per IFRS S2 disclosure requirements is provided in the Vedanta Climate Action (TCFD) Report FY 2025

C2.0

Impact Driver
Pollution/
pollution removal

Indicator
Pollutants released to soil split by type

Disclosure for FY 2025
Total volume (m³) of moderate impact spills to soil
0

Total volume (m³) of high impact spills to soil
0

Number of incidents of significant pollution to soil within the reporting period associated with hazardous materials and waste management.
0

Connection to GBF Targets
Target 7 (7.2 Pesticide environment concentration), Target 11

C1.0

Impact Driver
Land/ freshwater/
ocean-use change

Indicator
Total spatial footprint (Ha)

Disclosure for FY 2025
Total surface area controlled/ managed by the organisation, where the organisation has control
72,045.7

Total disturbed area
The total disturbed area is reported as equal to the total surface area controlled or managed by the organisation, as all such areas are considered impacted by our business activities

Total rehabilitated/restored area
2,764.4

Connection to GBF Targets
Target 1 (A.2 Extent of natural ecosystems), Target 2, Target 5, Target 11 (B.1 Services provided by ecosystems)



C2.1

Impact Driver

Pollution/
Pollution removal



Indicator

Wastewater discharged (m³)

Disclosure for FY 2025

Volume of wastewater discharged to surface water

81,00,652.38

TDS<1000mg/L

Volume of wastewater discharged to seawater

4,10,821

TDS<1000 & < 2500mg/L

37,57,428

TDS> 2500mg/L

Volume of wastewater discharged to third party

2,089.4

TDS> 2500mg/L

Connection to GBF Targets

Target 7 (7.1 Index of coastal eutrophication potential), Target 11 (B.1 Services provided by ecosystems)

Note 1:

As per the ICMM's definition, high-quality water refers to water discharged with a Total Dissolved Solids (TDS) concentration of less than 5,000 mg/L, while water with a TDS concentration exceeding this threshold is considered low-quality.

We do not discharge any water into groundwater sources.

The disclosures provided herein are based on the TDS measurements of the water discharged from our operations.

*Note 2:

Additional details on the disposal of hazardous and non-hazardous waste, are provided in the ESG Factbook section of the this year's Sustainability Report.

C2.2 *

Impact Driver

Pollution/
pollution Removal



Indicator

Waste generation and disposal (MT)

Disclosure for FY 2025

Waste incinerated (with and without energy recovery)

193.63

Waste sent to landfill

6,30,53,205

Other disposal methods

165.46

Waste recycled & reused

4,37,624

Other recovery options

1,33,48,187

Total waste generated

Hazardous

5,23,132

Non-Hazardous

2,13,64,264

Total waste disposed

Hazardous

6,30,53,563

Non-Hazardous

5,88,125

Connection to GBF Targets

Target 7, Target 11 (B.1 Services provided by ecosystems)

Mineral waste (in metric tonnes)

Tailings

1,83,12,566

Waste rock

7,71,76,804

Overburden

2,15,20,352

C2.3

Impact Driver

Pollution/
pollution removal



Indicator

Plastic Pollution (MT)

Disclosure for FY 2025

Total plastic waste generated*

708.98

Connection to GBF Targets

Target 7, Target 11 (B.1 Services provided by ecosystems)

*Further breakdown of plastic waste is not included in this report as the plastic waste generated is immaterial. It can be referred to in the BRSR report as part of our Integrated Report FY 2025.

C2.4

Impact Driver

Pollution/
pollution removal



Indicator

Non-GHG air pollutants (MT)

Disclosure for FY 2025

Particulate matter PM2.5 and/or PM10

18,011

Nitrogen oxides (NO₂, NO and NO₃)

1,22,452

Volatile organic compounds (VOC or NMVOC)

3

Sulphur oxides (SO₂, SO, SO₃, SO_x)

4,47,109

Hazardous air pollutants

169

Total non-GHG emissions*

5,87,744

Connection to GBF Targets

Target 7, Target 11 (B.1 Services provided by ecosystems)

*Ammonia (NH3) is not included in this report as it is not relevant for the company

C3.0

Impact Driver

Resource use/
replenishment



Indicator

Water withdrawal and consumption from areas of water scarcity (m³)

Disclosure for FY 2025

Total volume of water withdrawal from areas of water scarcity

6,66,00,685

Bifurcation by water source:

Water withdrawal from surface water

125,858,192

Water withdrawal from groundwater

8,581,987.35

Water withdrawal from third party

5,882,376

Total volume of water consumption from areas of water scarcity

8,71,66,952

Water withdrawal in areas of water scarcity as a percentage of the total water withdrawn

30.7%

The number and share (%) of sites located in areas of water scarcity

12 sites and 28.6%

Total water withdrawal

21,66,73,207

Total water consumption

24,85,38,844

Total operational water recycled/reused

8,57,61,326

Total water recycled as a percentage of consumption (%)

35%

Connection to GBF Targets

Target 11 (B.1 Services provided by ecosystems)

C4.

Impact Driver

Invasive alien species and other



Indicator

Measures against unintentional introduction of invasive alien species (IAS)

Disclosure for FY 2025

Proportion (%) of sites where activities pose a risk of alien and/or invasive species introduction that have presence/absence assessments completed

0*

Proportion (%) of sites where the presence of alien and/or invasive species has been identified and poses a risk to biodiversity that have eradication plans in place and that are on track to meet targets.

0*

Connection to GBF Targets

Target 6, Target 11 (B.1 Services provided by ecosystems)

*No exotic or invasive species are introduced into the sites because of Vedanta's operations

86

87

Targets for Managing Nature-Related Issues & Performance Against Targets

Impact Driver	Metric	Vedanta Target Description	Target Year	KMGBF Target Alignment	India NBT Alignment	UN SDG Alignment	Performance in FY 2025
 Climate Change	Scope 1 & 2 GHG emissions per unit of output or revenue	20% reduction in GHG emissions intensity	2025	KMGBF Target 8: Minimise the Impacts of Climate Change on Biodiversity and Build Resilience	NBT 8: Minimise the Impact of Climate Change	SDG 13, SDG 9  	43.75 tCO ₂ e/ INR Million
 Climate Change	Total Scope 1 & 2 emissions reduction from 2021 baseline	25% reduction in absolute GHG emissions from 2021 baseline	2030	KMGBF Target 8: Minimise the Impacts of Climate Change on Biodiversity and Build Resilience	NBT 8: Minimise the Impact of Climate Change	SDG 13, SDG 9  	67 Million tCO ₂ e
 Climate Change	Net emissions across Scopes 1, 2 (possibly 3)	Net Zero Carbon Emissions by 2050 or sooner	2050	KMGBF Target 8: Minimise the Impacts of Climate Change on Biodiversity and Build Resilience	NBT 8: Minimise the Impact of Climate Change	SDG 13, SDG 9  	112.7 Million tCO ₂ e covering Scope 1, 2, 3
 Climate Change	Installed/contracted renewable energy capacity	500 MW renewable energy capacity (RTC or equivalent)	2025	KMGBF Target 8: Minimise the Impacts of Climate Change on Biodiversity and Build Resilience	NBT 8: Minimise the Impact of Climate Change	SDG 7, SDG 9, SDG 13   	299 MW
 Climate Change	Installed/contracted renewable energy capacity	2.5 GW renewable energy capacity (RTC or equivalent)	2030	KMGBF Target 8: <i>Minimize the Impacts of Climate Change on Biodiversity and Build Resilience</i>	NBT 8: Minimise the Impact of Climate Change	SDG 7, SDG 9, SDG 13   	299 MW
 Freshwater use change	Volume of freshwater withdrawn	Reduce freshwater consumption by 15% from 2021 baseline	2025	KMGBF Target 7: <i>Reduce Pollution to Levels That Are Not Harmful to Biodiversity</i>	NBT 7: Reduce Pollution Risks and Negative impacts NBT 11: Enhance and maintain ecosystem services and regulate air and water quality, hazards and extreme events	SDG 6 	160 Million kL

Impact Driver	Metric	Vedanta Target Description	Target Year	KMGBF Target Alignment	India NBT Alignment	UN SDG Alignment	Performance in FY 2025
 Freshwater use change	Number of water-related Category 5 incidents	Achieve zero Category 5 water-related incidents	2025	KMGBF Target 7: Reduce pollution risks to biodiversity and ecosystem functions. KMGBF Target 11: Restore, Maintain and Enhance Nature's Contributions to People	NBT 7: Reduce Pollution Risks and Negative impacts NBT 11: Enhance and maintain ecosystem services and regulate air and water quality, hazards and extreme events	SDG 6 	1 Category 5 related incident
 Resource Replenishment (Water)	Percentage of water recycled	Achieve 33% water recycling	2025	KMGBF Target 7: Improve efficiency and circular use of water in production processes. KMGBF Target 11: Restore, Maintain and Enhance Nature's Contributions to People	NBT 7: Reduce Pollution Risks and Negative impacts NBT 11: Enhance and maintain ecosystem services and regulate air and water quality, hazards and extreme events	SDG 6, 12  	35%
 Freshwater use change	Ratio of water replenished to consumed	Achieve net water positivity (>1 replenishment ratio)	2030	KMGBF Target 3: Restore degraded ecosystems and ensure functionality of water systems. KMGBF Target 11: Restore, Maintain and Enhance Nature's Contributions to People	NBT 7: Reduce Pollution Risks and Negative impacts NBT 11: Enhance and maintain ecosystem services and regulate air and water quality, hazards and extreme events	SDG 6 	0.63
 Resource Replenishment (Land and Biodiversity)	Feasibility study conducted	Determine feasibility for No-Net-Loss or Net Positive Impact commitment	2025	KMGBF Target 1: Ensure spatial planning to reduce biodiversity loss.	NBT 1: Biodiversity Inclusive Integrated Land/ Sea Use Planning.	SDG 15 	Feasibility Analysis for Nature Positive future is under progress
 Resource Replenishment (Land and Biodiversity)	Biodiversity risk assessments completed	Review biodiversity risk at all locations	2025	KMGBF Target 1: Ensure spatial planning to reduce biodiversity loss.	NBT 1: Biodiversity Inclusive Integrated Land/ Sea Use Planning.	SDG 15 	100% sites have been re-assessed for biodiversity risk

Impact Driver	Metric	Vedanta Target Description	Target Year	KMGBF Target Alignment	India NBT Alignment	UN SDG Alignment	Performance in FY 2025
 Resource Replenishment (Land and Biodiversity)	Roadmap developed and implemented	Develop roadmap for No-Net-Loss or Net Positive Impact	2030	KMGBF Target 1: Ensure spatial planning to reduce biodiversity loss.	NBT 1: Biodiversity Inclusive Integrated Land/ Sea Use Planning.	SDG 15 	Feasibility Analysis for Nature Positive future is under progress
 Resource Replenishment (Land and Biodiversity)	Number of trees planted	Plant 7 million trees under 1 Trillion Trees campaign	2030	KMGBF Target 2: Restore ecosystems that enhance biodiversity and resilience.	NBT Target 2: Ecosystems Restoration	SDG 15 	2.9 million trees till date
 Pollution Removal	Utilization rate of fly ash	Sustain 100% utilization of fly ash	2025	KMGBF Target 8: Prevent and reduce pollution from waste.	NBT 5: Promote sustainable waste management practices.	SDG 12 	114%
 Pollution Removal	Utilization rate of low-toxicity waste	Achieve 100% utilization of high-volume low-toxicity waste	2025	KMGBF Target 8: Reduce adverse impacts of waste and pollution on ecosystems.	NBT 5: Promote sustainable waste and industrial byproduct management.	SDG 12 	96%
 Pollution Removal	Legacy ash	Zero Legacy ash by 2035	2035	KMGBF Target 2: Restore degraded lands affected by industrial activity.	NBT 3: Environmental restoration and amelioration of degraded areas.	SDG 12, SDG 15  	9.5 million MT

Way Forward

Building on our second TNFD disclosure, Vedanta remains committed to embedding nature-positive approaches across its operations and value chain. We have set ambitious biodiversity targets—including No-Net Loss at all project sites through the mitigation hierarchy, Net Positive Impact at Critical Habitats, and mandatory Biodiversity Management Plans in place by FY 2025—and launched group-wide engagement on NNL/NPI BMP roll-out. After reviewing existing BMPs, each Business Unit will now evaluate NNL feasibility and develop its tailored roadmap, supported by updated core indicators and the addition of three newly commissioned sites slated for full biodiversity assessments in the coming year. Our refreshed Biodiversity Policy and Standards have been published online to reinforce transparent, year-on-year reporting.

Our way forward is anchored in five strategic pillars—**protecting sensitive ecosystems, restoring and regenerating biodiversity, strengthening nature accountability, engaging communities, and fostering broader collaboration**—which will guide the development of our NNL roadmap through 2030. Insights from the FY 2025 double materiality assessment have elevated

tailings management to high priority, underscoring the need for deeper ecological integration. We will intensify risk management in priority areas, rigorously apply the mitigation hierarchy, scale up site-level BMP implementation, and enhance supplier and stakeholder engagement to extend accountability across the value chain.

Simultaneously, our on-the-ground projects are advancing meaningful conservation outcomes: large-scale plantation and Miyawaki forest development using native species; habitat restoration—buffer zones, wetland revival, water-quality improvements—and species-specific plans for Schedule I fauna, pollinators, and fish. We're also transforming mine waste streams into green spaces and butterfly parks, optimizing fly-ash stabilization with vegetation, and treating discharge water to reduce impacts. Community awareness programs further bolster these efforts, ensuring that conservation becomes a shared responsibility. Through transparent reporting, targeted action, and collaborative partnerships, Vedanta is building a resilient, nature-positive future.



Protect Ecosystems
Safeguard vulnerable natural areas



Restore Biodiversity
Revitalize diverse species and habitats



Strengthen Accountability
Enhance transparency and responsibility



Engage Communities
Involve local populations in Conservation



Foster Collaboration
Encourage partnerships for collective action

Vedanta's 5 Strategic Pillars

Integrating Biodiversity into Infrastructure and Landscape: Cairn's Conservation Initiatives at Barmer



At Cairn's Barmer site, biodiversity and infrastructure intersect across a fragile, arid ecosystem. In FY 2024-25, three targeted conservation initiatives – avifauna protection, wildlife water provisioning, and indigenous seed banking – were deployed not as isolated programs, but as interconnected responses to ecological risks and resilience challenges. These initiatives demonstrate how operational landscapes can evolve into living systems that buffer against biodiversity loss, reduce operational vulnerabilities, and regenerate local ecosystems.

Context: Barmer as an Ecological Interface

The Barmer region, home to dry scrub forests and migratory wildlife, is also a zone of high operational activity. Infrastructure expansion, combined with climate variability and habitat degradation, amplifies pressures on native fauna and flora. Recognizing these systemic risks, Cairn adopted a spatially integrated approach to conservation – aligning operational infrastructure with ecological functions.



Avifauna Risk Reduction: A Design-Based Response to Electrocution Hazards

Overhead line infrastructure, particularly in arid and open terrains like Barmer, presents a known threat to large-bodied birds – many of which are IUCN-listed or ecologically critical. Cairn responded by engineering a bird-safe retrofit across approximately 2,500 poles in its MVCC and overhead line (OHL) networks.

Technical Solution: Installation of V-Cross Arms to replace straight cross arms, and deployment of bird caps and spikes to deter perching on high-risk double poles.

Outcomes: The result was a complete elimination of bird electrocutions in the treated areas, protecting migratory and resident avifauna, while also reducing overhead line trips that can lead to operational disruptions.

Systems Benefit: This initiative not only reduces species mortality but also strengthens infrastructure reliability – a dual gain in ecological and operational continuity.

Wildlife Water Provisioning: Reducing Conflict through Ecosystem Support



Water scarcity remains one of the most critical constraints for wildlife in Rajasthan's arid zones, often driving animals into human-settled areas and intensifying conflict. Cairn implemented a permanent water provisioning strategy in ecologically significant Reserve Forests near its operational areas.

Locations:

Gangali Reserve Forest – 2,000 hectares

Dhorimanna Hilly Region – 4,000 hectares

Design: Self-sustaining, wildlife-accessible water facilities tailored to local terrain and fauna movement patterns.

Outcomes: Enhanced availability of water across 5,000 hectares, reduction in human-wildlife conflict incidents, and ecosystem-level support for faunal movement and survival.

Co-benefit: The facilities also support in-situ nursery operations, producing ~200,000 saplings annually that feed into the site's afforestation and revegetation efforts.

Indigenous Seed Bank: Regenerating Ecological Memory and Rural Livelihoods

Ecological restoration in semi-arid zones depends on the revival of keystone species and native grasses that define local food webs and soil dynamics. Cairn's seed bank program addresses this by creating a



biodiversity reservoir that supports both natural regeneration and community outreach.

- **Species Banked:** Keystone and culturally significant species such as Khejri, Kumtha, Jaal, Kankeri, and Guggle, alongside resilient shrubs and native grasses.
- **Distribution Strategy:** Seedlings and seed balls are distributed to farmers, Panchayats, and rural communities for replanting on community and private lands.

Ecosystem Function: The species selected support pollinators, reduce wind erosion, stabilize soils, and provide fodder for wildlife and livestock.

Socioeconomic Interface: By integrating community participation, the seed bank enhances ecological literacy and builds livelihoods through decentralized restoration.

Integrated Impact and Forward Outlook



Together, these initiatives reflect a landscape-level approach to conservation – one that integrates engineering, hydrology, and biodiversity management into the operating fabric of Cairn's Barmer site.

Ecological Gains: Species conservation, desertification control, and improved habitat connectivity.

Operational Resilience: Reduced infrastructure disruptions and conflict-related production risks.

Community Co-Benefits: Employment, awareness, and shared stewardship of natural resources.

Cairn's strategy demonstrates that conservation, when designed as a system, can de-risk operations, regenerate land, and forge new partnerships with nature and people alike. Future phases will explore scale-up pathways, particularly in Gujarat's planned 1,000-hectare mangrove expansion, applying the same integrated design thinking.



Regenerating Ecological Interfaces at an Industrial Scale: BALCO's Integrated Biodiversity Initiatives



At Bharat Aluminium Company Limited (BALCO), biodiversity conservation is not peripheral — it is embedded into the landscape of operations. Across smelters, township zones, tailing dam infrastructure, and legacy mining sites, BALCO has undertaken a series of interlinked ecological interventions. These range from wildlife rescue and greenbelt formation to long-term habitat restoration over closed tailing dams and mine voids. Together, they reflect a systems-oriented approach to environmental management where industrial legacies are reimagined as ecological assets.

Context: Industrial Landscapes as Living Systems

BALCO's operational footprint spans dense forest regions, biologically rich mining zones, and community settlements. The proximity to vibrant ecosystems necessitates active engagement with biodiversity risks — particularly human-wildlife conflict, habitat fragmentation, and post-operational land degradation. Rather than treat these challenges in isolation, BALCO has deployed integrated, site-responsive interventions that promote ecological continuity, landscape restoration, and community resilience.



Rapid Response Wildlife Safety: The BALCO Animal Rescue Service

Wildlife-human interfaces in operational areas can result in avoidable casualties, particularly for species like snakes and monitor lizards. BALCO addressed this risk by formalizing an **Animal Rescue Team** trained in safe handling and ethical release practices.

- **Deployment Zone:** Smelter, township, and adjacent plant areas.



- **Species Covered:** Primarily snakes, along with small reptiles and lizards.
- **Impact:** In FY 2025 alone, the team safely rescued and released over 1,000 snakes, reducing potential human-wildlife conflicts.
- **Systems Function:** This service operates as a biological safety net, ensuring that biodiversity coexists with operations rather than being displaced by them.

Reclaiming Industrial Legacy: Closed Tailing Dam Greenbelt Development

Tailing dams, once decommissioned, often remain barren and ecologically inert. BALCO's greenbelt initiative treats these spaces as restoration corridors.

- **Area Covered:** Over 60 hectares of closed tailing dams have undergone soil capping and plantation.
- **Flora Introduced:** Native and fast-growing species such as *Siras*, *Sheesam*, *Karanj*, *Gulmohar*, and *Neem*.



- **Ecological Result:** These restored areas now support rare and regionally significant avifauna, including **Scaly-breasted Munia**, **Indian Roller**, and **White-shouldered Kite**.
- **Restorative Function:** This greenbelt not only offsets prior land degradation but functions as a carbon sink, a biodiversity refuge, and a visual buffer for nearby communities.

Mine Site Habitat Restoration: Rewilding Post-Operational Land



BALCO's discontinued mines — Mainpat, Kawardha, and Chotia — were not left behind after closure. Instead, they became sites for long-term **habitat rewilding**.

- **Intervention:** Large-scale afforestation atop overburden dumps and in closed mine voids using native forest species, especially **fruiting trees and bamboo**.
- **Outcome:** The vegetation cover has matured to the point that some areas are visually and structurally indistinguishable from surrounding natural forests.



- **Faunal Recovery:** These zones now attract wildlife such as **deer, boars, and even occasional bear sightings**, indicating ecological reintegration.
- **Systems Role:** These landscapes act as ecological bridges — reconnecting fragmented habitats and stabilizing microclimates within mining-altered terrains.

Collective Impact and Strategic Value

Each of these initiatives — from real-time wildlife rescue to landscape-scale reclamation — operates at a different node within BALCO's ecological footprint. Together, they reflect a systems model of biodiversity governance:

- **Operational Resilience:** Reduced wildlife conflict and safer community-plant interactions.
- **Ecological Continuity:** Restored habitats support avifauna, reptiles, mammals, and native vegetation.
- **Community Interface:** Greener, safer landscapes enhance visual aesthetics and contribute to rural ecological literacy.

BALCO's integrated approach demonstrates how post-industrial terrains, when regenerated thoughtfully, can offer **climate resilience, biodiversity security, and reputational capital**. These efforts set the foundation for scaling up nature-positive transitions across India's extractive sectors

06

Appendix

TNFD Content Index

Recommendations	Section	Page Number
Governance		
a) Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities	Board Oversight of Nature-Related Dependencies, Impacts, Risks, and Opportunities	15
b) Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities	Assignment of Nature-Related Responsibilities to Management-Level Positions and Committees	17
c) Describe the organisation's human rights policies and engagement activities, and oversight by the board and management, with respect to Indigenous Peoples, Local Communities, affected and other stakeholders, in the organisation's assessment of, and response to, nature-related dependencies, impacts, risks and opportunities.	Human Rights and Engagement with Local Communities	23
Strategy		
a) Describe the nature-related dependencies, impacts, risks and opportunities the organisation has identified over the short, medium and long term	Enterprise-Level Risks	51
b) Describe the effect nature-related dependencies, impacts, risks and opportunities have had on the organisation's business model, value chain, strategy and financial planning, as well as any transition plans or analysis in place.	Business Model, Value Chain and Strategy	36
c) Describe the resilience of the organisation's strategy to nature-related risks and opportunities, taking into consideration different scenarios	Identification, Categorisation and Assessment of Physical Nature-related Risks	77
d) Disclose the locations of assets and/or activities in the organisation's direct operations and, where possible, upstream and downstream value chain(s) that meet the criteria for priority locations.	Ecologically Sensitive Locations	41
Risk & Impact Management		
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b) Describe the organisation's processes for managing nature-related dependencies, impacts, risks and opportunities	Identification, Categorisation and Assessment of Physical Nature-related Risks	77
c) Describe how processes for identifying, assessing, prioritising and monitoring nature-related risks are integrated into and inform the organisation's overall risk management processes.	Risk Framework and Monitoring Mechanisms	74
Metrics and Targets		
a) Disclose the metrics used by the organisation to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process	Metrics Used to Assess Nature-Related IDRO	85
b) Disclose the metrics used by the organisation to assess and manage dependencies and impacts on nature	Metrics Used to Assess Nature-Related IDRO	85
c) Describe the targets and goals used by the organisation to manage nature-related dependencies, impacts, risks and opportunities and its performance against these	Targets for Managing Nature-Related Issues and Performance Against Targets	88



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