



Task Force on
Nature-Related
Financial Disclosure
(TNFD) Report
2025

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## List of Abbreviations

Abbreviation	Full Form
AR3T	Avoid, Restore, Rehabilitate, Restore, Transform
ВМР	Biodiversity Management Plan
BRA	Biodiversity Risk Assessment
DIRO	Dependency, Impact, Risk, Opportunity
ENCORE	Exploring Natural Capital Opportunities, Risks, and Exposure
ESG	Environmental, Social, and Governance
GBF	Global Biodiversity Framework
GHG	Greenhouse Gas
IBAT	Integrated Biodiversity Assessment Tool
IWRM	Integrated Water Resource Management
KBAs	Key Biodiversity Areas
LCA	Life Cycle Assessment
SBTi	Science-Based Targets initiative
TNFD	Taskforce on Nature-related Financial Disclosures
WWF	World Wide Fund for Nature

# **ABOUT THIS REPORT**

This report marks Jindal Stainless Limited's (JSL) continued journey as an Early Adopter of the Taskforce on Nature-related Financial Disclosures (TNFD) framework, building on the foundation established in FY 2023–24. It reflects our commitment to embedding nature and biodiversity considerations into the heart of our business strategy, operational planning, and stakeholder engagement.

The disclosures presented here are aligned with globally recognized standards and initiatives, including the International Sustainability Standards Board (ISSB – IFRS S1 and S2), the Kunming–Montreal Global Biodiversity Framework (GBF), ResponsibleSteel International Production Standard, the United Nations Sustainable Development Goals (SDGs) and India's 2024-2030 National Biodiversity Strategy and Action Plan (NBSAP). Through this alignment, we aim to provide a transparent account of our nature-related dependencies, impacts, risks, and opportunities, while demonstrating how these considerations strengthen JSL's long-term resilience and value creation.

The scope of this report covers our major production facilities at Hisar (Haryana) and Jajpur (Odisha), along with key corporate offices and relevant value chain partners. Our approach draws on comprehensive Biodiversity Risk Assessments (BRA) and Biodiversity Management Plans (BMP) for each site, enabling targeted interventions that address site-specific environmental challenges. These

assessments have been structured using the LEAP approach (Locate, Evaluate, Assess, Prepare), ensuring a systematic identification and evaluation of nature-related issues across our operations and supply chain.

We have applied globally recognized tools such as ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) and the WWF Biodiversity Risk Filter to assess ecosystem dependencies and potential impacts. These findings have been strengthened through field validation and consultation with stakeholders in biodiversity-sensitive areas, ensuring that our strategies are informed by both scientific analysis and local knowledge.

The reporting period for this disclosure is FY 2024–25 (i.e. 1st April 2024-31st March 2025). Data presented in this report has been drawn from internal monitoring systems, operational records, and third-party assessments. Where applicable, it has been harmonized with our broader sustainability reporting to ensure consistency and comparability for our stakeholders.

Through this TNFD disclosure, JSL reaffirms its role as a responsible stainless-steel producer—one that recognizes the interdependence between thriving ecosystems and sustainable industrial growth and is committed to advancing nature-positive outcomes across our value chain.



# JINDAL STAINLESS\_

# MESSAGE FROM MD - FY24 RECAP & FY25 AMBITION





At Jindal Stainless, sustainability is not a compliance goal but a strategic commitment.

By aligning with TNFD and global ESG frameworks, we are turning nature stewardship into a source of long-term resilience and value creation.

Dear Stakeholders,

As I reflect on the past year, I take great pride in how Jindal Stainless has deepened its commitment to nature and biodiversity—not as a compliance exercise but as a strategic imperative that strengthens our business resilience and creates long-term value. FY24 marked a defining year in our sustainability journey, and FY25 represents our transition from ambition to tangible action in protecting and restoring the natural ecosystems on which we depend.

Our nature stewardship is anchored in scientific rigor and transparency. As an early adopter of the Task Force on Nature-related Financial Disclosures (TNFD), we have established a robust foundation by mapping our dependencies and impacts across the value chain and embedding biodiversity considerations into our enterprise risk and strategic planning frameworks.

In FY25, our commitment to nature-positive outcomes has evolved through Project Samanvay 2.0, integrating comprehensive ESG frameworks aligned with stakeholder expectations and global standards. Through rigorous Biodiversity Risk Assessments (BRA) and Biodiversity Management Plans (BMP) guided by IFRS S2 — deepens

our commitment to climate accountability by quantifying the financial implications of climate and nature risks, evaluating the transition costs associated with carbon pricing, and integrating climate and nature considerations into our capital allocation and investment decisions, ensuring that investments reflect both environmental stewardship and financial sustainability.

#### Embedding nature resilience across the Value Chain

Building on the groundwork of FY24, this year we advanced from qualitative to quantitative nature risk assessments, including the financial impact of extreme weather events — from floods disrupting raw material supply chains to droughts affecting water availability at our manufacturing sites. This holistic approach positions biodiversity not as an isolated environmental concern but as a business differentiator that enhances operational resilience, strengthens stakeholder trust, and drives sustainable growth.

These insights now inform our enterprise risk management framework, capital allocation decisions, ensuring that investments in water recycling systems, habitat restoration projects, and supplier sustainability programs are aligned with both environmental stewardship and business

continuity objectives — collectively avoiding over 3.18 lakh tCO2e in FY25 and reducing dependencies on nature-sensitive resources.

#### Turning nature ambition into business value

Our nature-positive strategy is not merely defensive risk mitigation but a catalyst for innovation and competitive advantage. By embedding sustainability into our R&D, we are developing low-carbon stainless steel products that meet the performance expectations of high-growth sectors such as clean energy, water infrastructure, and circular economy applications. This convergence of sustainability, innovation, and technology is positioning Jindal Stainless at the forefront of the global green steel transition.

The coming year will be pivotal for translating our TNFD commitment into measurable impact. We will continue to set ambitious yet achievable targets across water stewardship, biodiversity conservation, and ecosystem restoration, testing across geographies and value chain segments.

As we look to the future, our vision is to set new benchmarks for how business and nature can thrive in harmony. We are committed to ensuring that every facet of our operations, from our sites to our supply chain, is guided by a deep respect for the natural world. This means weaving nature considerations into the very fabric of our decision-making and partnerships, so that environmental stewardship becomes second nature—integral to our identity and our legacy.

We believe progress is measured not only in numbers, but in the strength of our relationships and the positive impact we have on the world around us. By cultivating meaningful engagement with Indigenous Peoples, local communities, and conservation partners, we strive to foster solutions that uplift both ecosystems and the people who rely on

them. Our shared journey is about building resilience—ensuring that our business contributes to a more balanced, vibrant, and sustainable future for all.

Transparency is the cornerstone of trust, and we are dedicated to demonstrating the sustainability of our products with clarity and honesty. We envision a future where customers and stakeholders can easily recognize the environmental value embedded in every stainless steel solution we create, reinforcing our reputation as leaders in responsible innovation.

Above all, we are instilling a culture of accountability and purpose at every level of our organization. By aligning our leadership and teams around ambitious goals linked to nature and climate, we aim to inspire performance that is not only measured in financial returns, but in the enduring health of the planet and society. This is our vision—leading with integrity, acting with foresight, and creating a legacy of stainless excellence for generations to come.

#### A Shared Commitment to a Sustainable Future

None of this progress would be possible without the dedication of our employees, partners, and communities who share our vision for a nature-positive future. Together, we are redefining what it means to be a responsible corporate citizen—creating stainless steel solutions that are not only built to last but also contribute to the restoration and regeneration of the natural systems that sustain us all.

I extend my gratitude to all our stakeholders for their collaboration and trust. Let us shape the next chapter of stainless excellence—together, for nature, and for future generations.

#### Abhyuday Jindal

Managing Director

Jindal Stainless Limited



# FROM CSO'S DESK



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Challenges remain in scaling our conservation efforts, extending biodiversity assessments throughout our value chain, and building the capabilities needed to meet our ambitious targets. We are committed to learning, adapting, and continuously improving our approach based on monitoring data, stakeholder feedback, and evolving scientific understanding.

Dear Stakeholders.

I am pleased to present Jindal Stainless's second Task Force on Nature-related Financial Disclosures (TNFD) report. Building on our inaugural disclosure, this year marks our transition from commitment to tangible action—demonstrating that sustainable growth and environmental stewardship are not merely aspirational goals but integral to our operational resilience and long-term success.

FY 2024-25 has been a year of meaningful progress. Through Project Samanvay 2.0, we have embedded sustainability as a core pillar of our business strategy, establishing comprehensive ESG frameworks that align with stakeholder expectations and regulatory requirements. This initiative encompasses environmental and social risk assessments, our decarbonization roadmap, enhanced water management systems, and a strengthened supply chain sustainability program.

At JSL, we recognize that nature is foundational to our operations. Our commitment to "No Net Loss" of biodiversity has progressed from policy to practice, with Biodiversity Risk Assessments (BRA) and Biodiversity Management Plans (BMP) now operating at our key operational sites. These plans, grounded in the AR3T mitigation hierarchy, reflect our dedication to protecting high biodiversity value areas, conserving indigenous species, and preventing ecosystem degradation.

Our progress is measurable. In FY 2024-25, we planted approximately 89,000 saplings across and around our operations, contributing to ecological restoration and biodiversity enhancement. We commissioned a pioneering 30 MWp solar energy project at Jajpur—including a 7.3 MWp floating solar installation—integrating nature-positive solutions with climate action. Through our subsidiary JSL Super Steel Limited, we secured an 11 MWp Power Purchase Agreement, advancing our renewable energy portfolio as we work toward Net Zero by 2050.

We conducted our first comprehensive climate risk assessment aligned with TCFD recommendations, strengthening our understanding of physical and transition risks. We expanded community engagement through Participatory Rural Appraisal methods in villages near our facilities, incorporating local ecological knowledge into our conservation strategies. This year, we formalized critical policies—our Biodiversity Policy, Environment Policy, Climate Change Policy, and Water Management Policy—creating a governance framework that guides our nature-positive actions.

While we are proud of these achievements, we recognize that the journey toward full integration of nature considerations into our business is ongoing. Challenges remain in scaling our conservation efforts, extending biodiversity assessments throughout our value chain, and building the capabilities needed to meet our ambitious

targets. We are committed to learning, adapting, and continuously improving our approach based on monitoring data, stakeholder feedback, and evolving scientific understanding.

Our commitment extends to our value chain as we work toward assessing 100% of suppliers on ESG criteria. We remain focused on our targets: a 50% reduction in carbon emission intensity by 2035 and Net Zero by 2050, supported by a ₹700 crore investment in decarbonization initiatives including renewable energy, green hydrogen, and carbon capture technologies.

As a member of Responsible Steel and an early adopter of the TNFD framework, JSL continues to advance transparency and accountability in India's metals sector. This report represents our ongoing commitment to being active stewards of the natural systems on which

we depend, recognizing that business resilience and environmental health are inseparable.

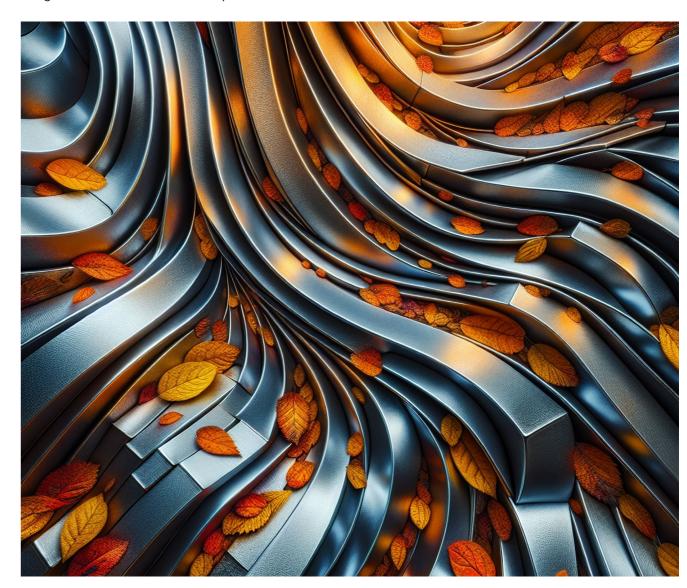
Looking ahead, we are committed to deepening our nature-positive initiatives, scaling biodiversity restoration, and strengthening our resilience to nature-related risks. The path requires continuous collaboration with our employees, partners, communities, regulators, and investors. Together, we can demonstrate that responsible industrial production is both possible and essential for long-term prosperity.

Thank you for your continued partnership as we navigate this journey toward sustainable growth.

Sincerely,

#### Mr. Kalyan Bhattacherje

Chief Sustainability Officer, Jindal Stainless Limited





# Stakeholder Engagement

Effective stakeholder engagement is fundamental to JSL's approach to nature-related risk management and biodiversity conservation. Recognizing that local communities possess valuable traditional ecological knowledge and are directly affected by our operations, we have strengthened our engagement processes in FY 2024-25 to ensure inclusive, participatory, and meaningful dialogue.

In FY 2024-25, JSL expanded its field assessment program to villages near our Jajpur and Hisar facilities, utilizing the Participatory Rural Appraisal (PRA) methodology. The

PRA approach enabled us to move beyond conventional consultation and create genuine partnerships with communities in biodiversity conservation and land use planning.

Our engagement process involved individual interviews, Focus Group Discussions (FGDs), participatory mapping exercises, and knowledge exchange sessions in Kantipur and Manatira (near Jajpur) and Dabra and Satrode (near Hisar). These consultations gathered insights that have directly informed our Biodiversity Management Plans and conservation strategies.

#### **Key Findings from Community Consultations**



#### **Biodiversity Awareness and Participation**

Communities demonstrated high awareness of local biodiversity with active interest in conservation. However, participation levels varied, with approximately half of participants already involved in conservation activities, highlighting both the foundation of ecological awareness and the opportunity to expand community involvement. Communities shared insights about indigenous plant species, seasonal patterns, pollination practices, water resource management, and traditional sustainable agriculture. This knowledge has been instrumental in shaping our approach to habitat restoration and species conservation.

Communities proactively highlighted several interconnected environmental opportunities for improvement, expressing a strong desire for enhanced air and water quality management—especially in areas like Dabra and Satrode—through better pollution control measures. They underscored the importance of safeguarding water resources amid changing water levels and quality, and advocated for collaborative efforts to promote soil conservation and boost agricultural productivity. Additionally, residents noted the need for revitalising populations of important local plant and animal species, such as Neem, Jamun, Guava, sparrows, blue bulls, and peacocks, recognising their significance for both biodiversity and livelihoods. Concerns regarding deforestation and the effects of technological changes, such as mobile radiation, were also viewed as opportunities to strengthen the protection of forest ecosystems and wildlife habitats, reflecting the community's commitment to fostering a healthier and more sustainable environment.



#### **Community Priorities**

Based on consultations, communities identified priority actions:

- Enhanced Community Engagement: Increase community interaction in selecting and maintaining native and fast-growing plant species. Involve local residents more directly in conservation decision-making and implementation.
- Improved Monitoring and Maintenance: Strengthen post-plantation monitoring to ensure sapling survival and health. Address challenges related to water availability, pest management, and pollution impacts.
- Environmental Impact Mitigation: Implement measures to reduce industrial pollution, including dust

- control, air quality improvement, and water resource protection. Address fuelwood dependency to combat deforestation.
- Support for Traditional Practices: Incorporate and support traditional ecological practices, such as bee pollination methods, which are essential for agricultural productivity and ecosystem health.
- Leverage Government Schemes: Utilize government programs for tree plantation, maintenance, and water resource management. Collaborate with local authorities on agroforestry and watershed initiatives.
- » Focus on Fast-Growing Species: Prioritize planting and maintaining fast-growing native tree species and reward communities for excellent maintenance efforts.



#### **Integration of Stakeholder Feedback**

JSL is committed to incorporating stakeholder feedback into strategic decisions and operational practices. In FY 2024-25, we have taken steps to formalize this integration:

- » Policy Alignment: Community insights have been integrated into our Biodiversity Policy, Environment Policy, and Water Management Policy adopted in February 2025.
- » Biodiversity Risk Assessments: Stakeholder consultations have directly informed our BRA and BMP development, enabling us to address location-specific challenges.
- Continuous Dialogue: We are establishing regular engagement channels with community representatives for ongoing dialogue and adaptive management.

**TNFD Framework Alignment:** Through TNFD adoption and ongoing assessments, we integrate insights from communities, regulators, and industry partners to inform policy on biodiversity, water management, and sustainable sourcing.

Building on learnings from FY 2024-25, JSL plans to strengthen stakeholder engagement by expanding coverage, developing joint monitoring programs, providing capacity building, and maintaining transparent reporting of progress. We recognize that effective nature conservation requires active partnership with local communities, and through deepened collaboration, we aim to build trust, incorporate diverse knowledge systems, and create shared value for business resilience and ecosystem health.





# **ABOUT** JINDAL STAINLESS

Jindal Stainless Limited (JSL) is India's largest stainlesssteel manufacturer and one of the leading global producers of stainless-steel products. Headquarters in New Delhi, JSL operates through an integrated network of large-scale production facilities, key among them being:

- » Hisar, Haryana the world's largest single-site producer of stainless steel in the 200 series, housing advanced cold rolling and finishing lines.
- » Jajpur, Odisha a state-of-the-art stainless-steel complex with integrated melting, casting, and rolling operations.

Beyond its manufacturing footprint, JSL's value chain extends from responsible sourcing of raw materials — such as ferroalloys and scrap — to global distribution networks serving sectors including architecture, automotive, railways, infrastructure, and consumer goods. Upstream, the company prioritizes circularity through high scrap utilization, while downstream it focuses on delivering products that contribute to resource efficiency and sustainability in end-use industries.

#### **SUSTAINABILITY COMMITMENTS**

Sustainability forms the foundation of JSL's long-term growth strategy. The company has committed to:

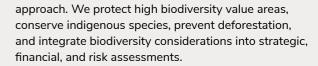
- » Net Zero GHG emissions by 2050 and significant interim decarbonization milestones by 2035.
- Advancing a circular economy model, with industry-leading stainless steel recycling practices and high scrap input ratios to reduce dependence on virgin raw materials.
- Achieving No Net Loss in biodiversity at priority sites through targeted conservation, restoration, and habitat enhancement initiatives
- Secure third-party certification for 'Zero Waste to Landfill' by 2030.
- Attain full water neutrality across operations by 2033.

Jindal Stainless Limited's sustainability vision is built on an integrated framework of Board-approved policies spanning Biodiversity, Environment, Climate Change, Water Management, Environmental, Health & Safety (EHS), Sustainability, Responsible Sourcing, and the Supplier Code of Conduct — which together guide decision-making across our operations and value chain. These commitments align with the Kunming-Montreal Global Biodiversity Framework (GBF), TNFD recommendations, the Paris Agreement, and the United Nations Sustainable Development Goals (SDGs), and embed nature, climate, and human rights considerations into our governance, risk management, and strategy.

Our Biodiversity Policy commits us to No Net Loss of biodiversity at all operating sites. This includes conducting Biodiversity Risk Assessments (BRA) and implementing Biodiversity Management Plans (BMP) using the AR3T (Avoid, Reduce, Restore, Regenerate & Transform)

#### Hisar, Haryana

The world's largest single-site producer of stainless steel in the 200 series, housing advanced cold rolling and finishing lines.



Through our Sustainability Policy and Environment Policy, we embed environmental risk and opportunity management into business decisions, prioritizing energy efficiency, resource conservation, waste minimization, air emissions control, and circular economy principles. We aim for zero liquid discharge at manufacturing locations and adopt the best available technologies to reduce our environmental footprint while protecting natural habitats.

Our Climate Change Policy sets the course for achieving Net Zero GHG emissions by 2050, supported by sciencebased interim targets, increased renewable energy integration, and investments in low-carbon technologies and carbon capture. Climate risks — physical and transitional — are embedded into operational and capital planning, ensuring resilience across different timeframes and scenarios.

Our Water Management Policy addresses the material importance of freshwater to both operations and local communities. We commit to reducing water withdrawal volumes, restoring degraded water bodies and wetlands, and implementing water-efficient technologies and naturebased solutions, while engaging communities and experts in water stewardship.

Our Responsible Sourcing Policy and Supplier Code of **Conduct** extend our sustainability expectations across the value chain. We work with suppliers to uphold ethical business practices, human rights protections, and environmental safeguards, ensuring fair labor standards, anti-corruption compliance, and resource-efficient product design and production. Supplier sustainability performance is assessed prior to onboarding and monitored throughout the business relationship, with targeted engagement and capacity-building to drive improvements.

We also prioritize **stakeholder engagement** — from employees and communities to customers, investors, and regulators — to ensure our sustainability approach reflects shared priorities and delivers mutual value. Through continuous innovation, collaboration, and transparent reporting, we seek to demonstrate that industrial growth can be fully compatible with climate resilience, ecosystem health, and social equity.

Collectively, these commitments provide the foundation for JSL's nature-positive and low-carbon growth strategy, ensuring that biodiversity, climate, and human rights considerations are embedded into our Enterprise Risk Management (ERM) and ESG governance systems for long-term value creation.



## JIN DAL STAINLESS

# INTEGRATING NATURE INTO BUSINESS STRATEGY

JSL's journey to embedding nature considerations into its core business began with the recognition that healthy ecosystems are critical to sustaining its operations, particularly in relation to water availability, raw material sourcing, and climate resilience. Building on early environmental initiatives, the company has progressively expanded its focus to include biodiversity and ecosystem services within its strategic planning and risk management processes.

In FY 2023–24, JSL became an Early Adopter of the TNFD framework, initiating comprehensive Biodiversity Risk Assessments (BRA) and Biodiversity Management Plans (BMP) for its Hisar and Jajpur sites. These were developed using the LEAP approach and validated with stakeholder input to ensure both scientific rigor and community alignment. Tools such as ENCORE and the WWF Biodiversity Risk Filter have been integrated into site assessments, allowing the company to systematically evaluate dependencies, impacts, and risks across its value chain.



#### STRATEGIC FRAMING OF BIODIVERSITY WITHIN ESG AND RISK SYSTEMS

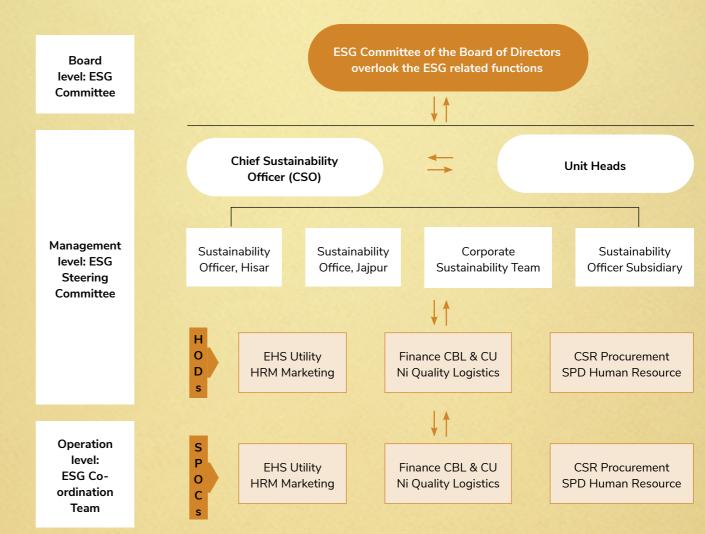
Biodiversity and nature-related considerations are embedded within JSL's Environmental, Social, and Governance (ESG) framework and its comprehensive Enterprise Risk Management (ERM) processes. JSL's ERM framework is built on globally recognised best practices, particularly the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework, and is tailored to meet JSL's specific business needs. The COSO framework provides a structured and integrated approach to risk management, emphasizing the alignment of risk with strategy, performance, and governance through five interrelated components: Governance and Culture, Strategy and Objective-Setting, Performance, Review and Revision, and Information, Communication, and Reporting.

Oversight is provided by the Board-level ESG Committee, supported by the Chief Sustainability Officer and crossfunctional teams. This ensures that nature-related dependencies and risks are evaluated alongside financial, operational, and reputational risks through JSL's enterprisewide risk management framework. The Risk Management Committee (RMC) plays a pivotal role in overseeing the company's enterprise-wide risk management framework, providing strategic oversight by reviewing the effectiveness of risk identification, assessment, and mitigation processes across the organisation, including nature-related risks.

The company's integrated approach ensures that opportunities for nature-positive growth are captured as part of JSL's long-term resilience strategy. At JSL, enterprise risk management is integral to governance and strategic planning, ensuring the company's operations remain resilient and future-ready through a structured, organisation-wide commitment to identifying and mitigating financial, operational, sectoral, and ESG-related risks, including nature-related considerations.

By aligning biodiversity management with broader decarbonization, water stewardship, and circular economy goals, JSL aims to lead the stainless-steel sector in demonstrating that industrial growth and ecological integrity can go hand in hand.

# **GOVERNANCE**





## JSLA

# BOARD OVERSIGHT OF NATURE-RELATED RISKS AND OPPORTUNITIES



#### **GOVERNANCE STRUCTURE AND OVERSIGHT**

The apex level ESG Committee comprises independent and non-independent directors. The Chief Sustainability Officer (CSO) is a permanent invitee to the committee meetings. The ESG Committee reviews and approves nature and biodiversity progress and alignment with TNFD recommendations.

The Board of Directors at Jindal Stainless Limited (JSL) exercises formal oversight of nature-related issues through its ESG Committee, which reports directly to the Board. The Board's key responsibilities for nature-related governance include:

- Strategic Oversight & Integration: Oversee naturerelated risks and opportunities, ensuring their integration into overall risk management and business strategy; endorse targets for nature and biodiversity, aligned with global frameworks such as TNFD and the Kunming-Montreal Global Biodiversity Framework (GBF).
- Transparency & Policy Alignment: Review and approve annual TNFD-aligned disclosures for transparency in nature-related risks and company actions; approve annual budgets and evaluate necessary policy changes for biodiversity and nature activities, ensuring alignment with international standards like TNFD, GBF, and the UN Declaration on the Rights of Indigenous Peoples.

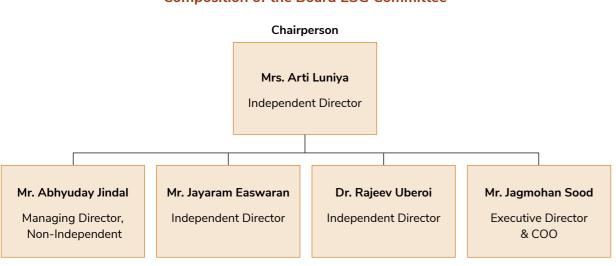
- » Leadership & Accountability: Assign clear responsibilities for nature-related issues to management-level positions or committees, ensuring these issues are incorporated into organizational performance objectives and remuneration policies.
- » Progress Monitoring & Expertise: Regularly review progress on nature and biodiversity projects, KPIs, and targets as defined in the Biodiversity Management Plan (BMP); ensure the Board has adequate expertise on nature-related issues by engaging external subject matter experts or scientific advisers as needed.

The Committee is responsible for reviewing the company's dependencies and impacts on biodiversity, ecosystems, water resources, and raw materials. It also tracks potential risks arising from environmental degradation and evaluates opportunities to enhance nature-positive outcomes across JSL's value chain. The ESG Committee ensures that all nature-related efforts are aligned with JSL's sustainability roadmap.

By aligning environmental performance with business resilience goals, the Board and its ESG Committee play a critical role in future-proofing JSL's operations.

This oversight is embedded into the broader risk and strategy review process, ensuring that nature-related issues are considered alongside financial, operational, and reputational risks.

#### Composition of the Board ESG Committee



#### Members



Nature-related risks and opportunities are integrated into JSL's enterprise risk management (ERM) system and are reviewed quarterly at both the ESG Committee and full Board levels. These reviews include:

- » Dependencies on ecosystem services (e.g., freshwater availability, soil health)
- » Impacts of operations on biodiversity at Jaipur and Hisar sites
- » Transition and physical risks, including regulatory changes and habitat degradation
- » Opportunities for carbon credit generation, ecosystem restoration, and water stewardship



#### TOPICS AND FREQUENCY OF NATURE-RELATED REPORTING TO THE BOARD

Topic	Owner	Frequency	Key Contents
Nature-Related Risk & Opportunity Report	Chief Sustainability Officer (CSO)	Quarterly	Nature & Biodiversity KPIs and updates.
ESG Committee Updates	ESG Committee Chair	Quarterly	Alignment of nature strategy with business objectives
Strategic Decision Papers	CSO, COO, CFO	As needed	Proposals on nature-based investments and regulatory preparedness





# REPORTING MECHANISMS

The CSO delivers a quarterly Nature-Related Performance Report to the ESG Committee and the Board, summarizing:

- » Material risks and opportunities identified via the LEAP approach
- » Key performance indicators (KPIs) related to ecosystem health, biodiversity loss, and natural resource use
- » Emerging trends and compliance requirements impacting operations and supply chains
- » Opportunities for proactive investments in biodiversity restoration and water conservation

These insights are integrated into broader risk dashboards and strategic planning documents for Board evaluation.



Recognizing the complexity of nature-related risks, JSL's Board has institutionalized annual training programs on biodiversity, climate-nature linkages, and environmental governance. The first such session, conducted by EKI Energy Services Ltd., enhanced the Board's ability to understand:

- » Ecosystem dependencies in JSL's operational geographies
- » Nature-related risk identification under TNFD-aligned frameworks
- » Strategic alignment between nature-based solutions and core business functions

#### **Training Details**

Recognizing the complexity of nature-related risks, JSL has implemented targeted training programs on biodiversity, climate-nature linkages, and environmental governance to enhance board and management understanding of these critical issues. During FY 2024-25, JSL conducted comprehensive nature-related training across multiple levels:

Board-Level Training - conducted post-TNFD drafting, which enhanced the Board's ability to understand:

- » Ecosystem dependencies in JSL's operational geographies
- » Nature-related risk identification under TNFD-aligned frameworks
- » Strategic alignment between nature-based solutions and core business functions

#### **Management-Level Training Sessions**

JSL conducted two internal training sessions to build organizational capacity:

- 1. Management Briefing Session on Biodiversity Focused on enhancing senior management understanding of biodiversity risks and opportunities across JSL's operations
- 2. Nature & Biodiversity Action Plan briefing for Key Cross-functional Teams Designed to align various departmental heads and function leaders on JSL's nature-related strategy and implementation roadmap

These training initiatives have directly influenced JSL's governance decisions, including the Board's commitment as an Early Adopter to TNFD and the mandate for integration of LEAP findings into capital planning processes.



#### MANAGEMENT-LEVEL OVERSIGHT



#### **EXECUTIVE OVERSIGHT AND STRATEGIC LEADERSHIP**

The ESG Steering Committee comprises Chief Sustainability Officer, CXOs, Unit Heads, Sustainability Officers, Corporate sustainability team and function heads from across the organization. The Steering Committee oversee and recommend action to ESG Coordination team for effective implementation of biodiversity & nature related projects, programs & initiatives.

#### **CSO's Role & Responsibilities**

- » Leads implementation of nature-related strategy
- » Oversees integration of LEAP outputs into decision-making
- » Reports quarterly to Board and Management on progress, risks, and performance
- » Facilitates cross-functional collaboration with key departments
- » Communicate performance and progress in priority locations to management on an annual basis.



The CSO works closely with senior management, including the Whole-Time Director, and heads of departments such as EHS, Risk, Finance, Utility, and Operations, to integrate nature-related considerations into JSL's core business strategy and decision-making processes. Supporting this effort, ESG coordination teams assisted by Single Points of Contact (SPOCs) designated under each departmental head, are responsible for executing nature and biodiversity-related initiatives across the organization.

# Key Outcomes of Management Collaboration

- » Identification of risks such as water scarcity, habitat disruption, and land-use conflicts
- » Integration of nature-related metrics into financial and operational planning
- » Alignment of nature-positive goals with business growth strategy



#### MANAGEMENT RESPONSIBILITY MATRIX FOR NATURE-RELATED ISSUES

Role / Committee	Key Responsibilities and Accountabilities (KRAs)
ESG Steering Committee	Develop company's nature-related strategies as per Biodiversity Management Plan, Biodiversity Policy & TNFD recommendation
	<ul> <li>Ensure alignment with TNFD, Kunming-Montreal Global Biodiversity Framework (GBF) and UN Declaration on the Rights of Indigenous Peoples</li> </ul>
	<ul> <li>Establish processes to receive regular updates on nature-related issues across operations and value chains</li> </ul>
	Monitor integration of nature-related considerations into business processes
	<ul> <li>Establish cross-functional structure and assign responsibilities for nature-related risks and opportunities</li> </ul>
	Oversee implementation of Biodiversity Management Plan (BMP) and nature-positive programs
	Report to Board & stakeholders on performance and progress
Chief Sustainability Officer (CSO)	<ul> <li>Overall executive accountability for nature-related dependencies, impacts, risks, and opportunities</li> </ul>
	Quarterly reporting to Board and ESG Committee
	Cross-functional collaboration with senior executives
	Strategic alignment of sustainability goals with business priorities
ESG Coordination Team	<ul> <li>Lead biodiversity risk assessments and implement biodiversity management plans with needed compliance</li> </ul>
	Collect data and report on nature & biodiversity performance metrics and indicators
	Conduct stakeholder engagement
	Build internal capacity and awareness on nature-related issues
Single Points of Contact	Execution of nature & biodiversity related activities at departmental level
(SPOCs)	Coordination with ESG Coordination Team
	Departmental integration of nature considerations





Nature-related dependencies and impacts are regularly assessed as part of the company's sustainability strategy. These assessments focus on understanding the vulnerability of key resources—such as freshwater, biodiversity, and ecosystem services—to environmental degradation and climate risks.

The LEAP framework is being adopted to systematically identify and address material nature-related risks across sites and business functions. The output is used to:

- » Refine operational and investment priorities.
- » Inform risk mitigation strategies
- Guide biodiversity conservation actions at priority sites (e.g., Jaipur and Hisar)



Senior management plays an active role in strategic decision-making on nature-related risks and opportunities. Key responsibilities include:

- » Ensuring nature-related risks are reflected in the enterprise risk dashboard
- » Directing investment in nature-positive initiatives, such as water conservation infrastructure or habitat restoration
- » Preparing operational teams for regulatory changes related to biodiversity and ecosystem protection

Nature-related risk management is not siloed. Instead, it is embedded into JSL's broader financial and operational strategy, ensuring that environmental risks and resource dependencies are evaluated when making decisions on:

- » Capex allocations
- » Raw material procurement
- » Utility optimization and plant efficiency
- » Site expansion and land use planning



## JSLA

# HUMAN RIGHTS AND STAKEHOLDER ENGAGEMENT IN NATURE-RELATED GOVERNANCE

Jindal Stainless Limited (JSL) integrates human rights into its environmental and operational governance, recognizing that the rights of people and the integrity of ecosystems are deeply interconnected. The company's Human Rights Policy draws from global frameworks, including the UN Guiding Principles on Business and Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, and the United Nations Global Compact. These standards apply across JSL's operations, subsidiaries, suppliers, and business partners, and are embedded into its sustainability and risk management practices.



Jindal Stainless (JSL) upholds internationally recognized human rights principles across its operations, supply chain, and project activities. These include adherence to:

- » UN Guiding Principles on Business and Human Rights
- » International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work
- » United Nations Global Compact Principles

These commitments are embedded in JSL's Human Rights Policy, which is integrated with its sustainability strategy and applies to all employees, suppliers, contractors, and business partners.

As part of its commitment to inclusive and responsible operations, JSL engages proactively with Indigenous Peoples and local communities in the regions where it operates. The company's approach prioritizes respect for land rights, cultural heritage, and shared natural resources. JSL also tracks the proportion of sites with material nature-related concerns and/or those located in ecologically sensitive areas that maintain active engagement with Indigenous Peoples, local communities, and other affected stakeholders on nature-related issues. Engagement is not treated as a one-time consultation but as an ongoing process embedded across all project stages—from environmental and social assessments to implementation and monitoring. The goal is to ensure that affected communities are informed, heard, and respected, especially where their environmental wellbeing and access to ecosystem services may be impacted.

To evaluate and address the social dimensions of nature-related risks, JSL conducts Human Rights Impact Assessments (HRIAs) as part of its project planning. These assessments examine how proposed activities may directly or indirectly affect communities and their surrounding

ecosystems, including impacts on biodiversity, water availability, and ecosystem health. Findings from these assessments feed into JSL's broader nature-related risk evaluations, allowing human rights risks and environmental risks to be addressed in tandem.

Efforts to mitigate environmental impacts on local communities are also central to JSL's operational strategy. The company has implemented measures such as biodiversity restoration at impacted sites, improved resource efficiency, and circular economy practices, most notably, stainless steel recycling to reduce reliance on raw material extraction. These actions support JSL's objective of aligning industrial growth with environmental integrity and community wellbeing.

JSL also maintains a formal grievance mechanism accessible to both internal and external stakeholders, including Indigenous Peoples and community representatives. This mechanism enables the timely and transparent resolution of complaints related to rights violations or environmental harm. It is complemented by continuous stakeholder engagement practices designed to uphold accountability throughout the project lifecycle.



#### COMMUNITY ENGAGEMENT LIFECYCLE

Project Stage	Engagement Focus Area	Stakeholders Involved
Pre-assessment	Identification of sensitive areas, local priorities	Indigenous Peoples, village councils
Planning & Design	Transparent dialogue on potential human rights and environmental impacts	Local communities, community leaders
Implementation	Mitigation of impacts on biodiversity and ecosystems; inclusive monitoring	Local residents, environmental and EHS departments
Monitoring & Follow-up	Grievance redress, continuous stakeholder feedback	Affected stakeholders, grievance mechanism teams

# **STRATEGY**

#### 89.095

saplings planted in and around the plant locations

#### 100% Water Recycling undertaken at all plants

2,95,210 MWh Renewable Energy utilised at the company's plants

global climate goals

#### **INR 700 Cr**

committed to decarbonisation projects across operations

# **50% Reduction** in CO2 emissions by 2035

Net Zero
by 2050, aligned with



#### **DOUBLE MATERIALITY ASSESSMENT**

Strategy

JSL conducted a comprehensive double materiality assessment to identify sustainability topics that are critical both in terms of their environmental and social impact (impact materiality¹) and their financial implications (financial materiality<sup>2</sup>), going beyond traditional risk assessments. Engaging over 1,400 stakeholders across key groups, including leadership, employees, customers, suppliers, investors, community/NGOs, media and industry bodies, JSL identified 13 key sustainability topics, of which 5 were classified as critical: Energy & Emissions, Circular Economy & Waste Management, Supply Chain Management, Product Stewardship & Innovation, and Water & Wastewater Management. Notably, 4 of these 5 critical topics are directly linked to nature and align with the disclosure expectations of the Taskforce on Naturerelated Financial Disclosures (TNFD). Specifically, Energy & Emissions, Circular Economy & Waste Management, and Water & Wastewater Management are direct naturerelated topics, while Supply Chain Management includes both direct and indirect nature dependencies. Biodiversity, though not among the top five, is categorized as a significant topic, further reinforcing the relevance of nature across JSL's materiality landscape. This highlights the

essential role of natural ecosystems in ensuring operational continuity, regulatory compliance, and long-term business resilience—making nature stewardship a strategic imperative for JSL.

To address critical sustainability issues, Jindal Stainless (JSL) has adopted targeted strategies that align with its long-term environmental and operational goals. For Energy & Emissions, JSL is transitioning to low-carbon operations by reducing fossil fuel use through energy-efficient technologies, shifting to renewable energy sources, and forming partnerships to support clean power supply aiming to achieve net-zero emissions by 2050. In Circular Economy & Waste Management, the company maximizes the use of recycled stainless-steel scrap, expands recycling of by-products like slag and fly ash, and is working toward achieving 'Zero-Waste-to-Landfill' certification by 2030. For Supply Chain Management, JSL is enhancing ESG compliance and transparency by integrating ESG criteria into supplier assessments, deploying digital tools for traceability, and strengthening supplier partnerships to align with its sustainability standards, with a goal to assess 100% of suppliers on ESG parameters.

#### JSL Double Materiality Matrix 2025



<sup>1</sup>The Impact Assessment considered the company's positive and negative impacts on the external environment and society across each topic, rating them primarily on three parameters — scale, scope, and likelihood — and, in the case of negative outcomes only, also on a fourth parameter, i.e. irremediability

<sup>2</sup>The Risk and Opportunity Assessment focused on external changes or triggers related to each topic, evaluating their potential to impact cash flows and reputation positively (opportunity) or negatively (risk). Each was rated on magnitude and likelihood across both financial and reputational dimensions



# NATURE RELATED IMPACT, DEPENDENCIES, RISKS AND OPPORTUNITIES

In synergy with the findings of the double materiality assessment, which identified nature-related themes such as emissions, water, waste, and supply chain sustainability as critical, JSL is advancing its nature-related risk management through the adoption of the LEAP (Locate, Evaluate, Assess, Prepare) framework to understand and manage ways in which our operations both depend on and impact nature. This understanding shapes our approach

to identifying risks and capturing opportunities, ensuring that environmental stewardship is integrated into our core business strategy.

The following sections detail the key parameters within each phase of the LEAP framework and outline JSL's approach to embedding these insights into operational decision-making.

	LEAP Indicator	JSL's enhanced approach for FY 24-25
	L1. Span of the Business Model and Value Chain	Expanded direct operations and broader upstream/downstream stakeholder engagement in assessing biodiversity risks. Continuous environmental assessment of new suppliers and customers.
LOCATE	L2. Dependency and Impact Screening	Enhanced application of ENCORE tool, with a broader scope covering additional sectors and incorporating emerging trends in biodiversity risk.
LOCATE	L3. Interface with Nature	More focused identification of critical biodiversity areas (KBAs) near new project locations, using updated tools and advanced mapping technologies.
	L4. Interface with Sensitive Locations	Continuous IBAT monitoring of new sites with proactive restoration and risk reduction measures for emerging threats.
	E1. Identification of Environmental Assets and Ecosystem Services	Periodic reassessment and integration of broader environmental assets using advanced ecosystem service valuation methodologies.
EVALUATE	E2. Identification of Dependencies and Impacts (Business Sectors)	Broader sectoral assessments, including value chain actors, with specific attention to critical raw materials and their ecosystem dependencies.
	E3. Dependency and Impact Analysis (Size and Scale)	Expanded impact analysis across operational units, including cumulative biodiversity impacts and long-term scenarios.
	E4. Impact Materiality Assessment	More comprehensive materiality assessment integrating external stakeholder and expert input on emerging biodiversity risks.
	A1. Risk and Opportunity Identification	A more granular approach to identifying risks and opportunities across all new sites and suppliers, focusing on emerging biodiversity risks in line with global trends.
ASSESS	A2. Adjustment of Existing Risk Mitigation and Risk and Opportunity Management	Updating and refining the BMP with additional risk mitigation strategies for newly identified risks, including strengthening adaptation measures for climate change impacts.
	A3. Risk and Opportunity Measurement and Prioritization	Continuous review and re-prioritization of risks, with a focus on water scarcity, habitat fragmentation, and integrating biodiversity conservation into core business decisions.
	A4. Risk and Opportunity Materiality Assessment	Broader integration of materiality assessments across all operations, incorporating community feedback and emerging biodiversity and ecosystem service trends.

	LEAP Indicator	JSL's enhanced approach for FY 24-25
	P1. Strategy and Resource Allocation	Allocation of resources toward high-impact biodiversity projects in materiality-identified areas, prioritizing sustainable financing
	P2. Target Setting and Resource Management	New biodiversity protection targets set for additional sites, expanding commitment to No Net Loss and aiming for positive biodiversity impact.
PREPARE	P3. Reporting	New biodiversity protection targets set for additional sites, expanding commitment to No Net Loss and aiming for positive biodiversity impact.
	P4. Presentation	Continuous improvement of monitoring systems, incorporating third- party validation of biodiversity conservation efforts, and extending reporting to include more sites and initiatives.

#### LOCATING INTERFACE WITH NATURE

The starting point for assessing nature-related risks and opportunities across JSL's India operations lies in understanding the geographic and sectoral footprint of its assets. The availability of asset-specific location data enables a spatially explicit assessment of how JSL's facilities interact with the natural environment. This information is essential to evaluate both direct and indirect impacts on biodiversity and ecosystem services.

To initiate the LEAP assessment, JSL has undertaken a location prioritization exercise guided by the TNFD's Locate phase framework. Given the potential for industrial operations to affect ecosystems, through land transformation, emissions, and disruption of ecological functions, a preliminary screening was conducted to identify sites that may be ecologically sensitive or exposed to nature-related dependencies.

This screening process integrates ecological indicators with operational relevance to highlight locations where material nature-related issues are more likely to arise. The criteria used reflect TNFD's definition of priority areas, including proximity to biodiversity-rich habitats, zones of high or declining ecosystem integrity, regions facing water stress, and areas critical for ecosystem service delivery.

Thirteen operational sites were reviewed as part of this assessment. These include a mix of administrative offices

(02), service centres (05), subsidiary manufacturing units (03), and major production hubs (03). While several sites exhibit limited environmental interface due to their administrative nature, manufacturing facilities in Hisar and Jajpur demonstrate significant operational scale and resource intensity. These two locations were further evaluated due to their potential for direct and indirect ecological impacts, including those associated with an active mining operation.

The assessment was conducted in two stages. The first involved a desktop analysis using global environmental datasets to identify ecological sensitivities across all sites. The second stage focused on field-level validation and review of site-specific metrics and biodiversity management plans, allowing for a more nuanced understanding of habitat conditions, conservation triggers, and overlaps with protected areas.

These facilities represent the core of JSL's manufacturing footprint and are closely linked to supply chain activities that may intersect with surrounding ecosystems. Insights from these evaluations will inform the next stages of the LEAP process, supporting the development of targeted strategies to address nature-related risks and enhance resilience.



Metrics & Targets

Facility	Importa	Important Biodiversity Values	Values			Ecosystem Integrity	tegrity		Water Stress	SS
	STAR	Presence of Protected Areas (PAS) and Key Biodiversity Areas(KBA) (5km radius)	Likely Critical Habitat with potential impact	Potential impact on freshwater biodiversity	Potential impact on terrestrial biodiversity (Based on Presence of Species of Conservation Importance, Biodiversity Intactness and nature of operations)	Natural Habitat Converted	Ecosystem	Emerging Hotspots	Water Scarcity Risk	CGWB- Groundwater Resource Assessment 2022
JSL Jajpur	Low	No PAs or KBAs	°Z	Low	Medium	o N	Low	°Z	High	Safe
Sukinda Mines	Low	No PAs or KBAs	<u>o</u>	Low	High	Yes	Low	°Z	High	Safe
JSL, Hisar	Low	No PAs or KBAs	° Z	Low	Low	o Z	Low	°Z	High	Safe
Corporate Office, Jindal Centre, Delhi	Low	No PAs or KBAs	o Z	Low	Low	o Z	Low	o Z	High H	Over-exploited
Jindal Stainless Centre Gurgaon Office	Low	No PAs or KBAs	o Z	Low	Low	o Z	Low	o Z	High	Over-exploited
Jindal Stainless Steelway Limited (JSSL), Pathredi	Low	No PAs or KBAs	o Z	Low	Low	o Z	Pow	<u>0</u>	High	Over-exploited
Jindal Stainless Steelway Limited (JSSL), Chennai	Low	No PAs or KBAs	o Z	Low	Pow	o Z	Low	o Z	High	Safe

Facility	Import	Important Biodiversity Values	Values			Ecosyster	Ecosystem Integrity		Water Stress	tress
Jindal Stainless Steelway Limited (JSSL), Vadodara	Low	No PAs or KBAs	o Z	Low	Low	0 Z	Low	o Z	High	Safe
Jindal Stainless Steelway Limited (JSSL), Mumbai	Low	Karnala WLS ~6 km west; No KBAs	o Z	Low	Medium	0 Z	Low	o Z	High	1
Jindal Stainless Steelway Limited (JSSL) , Gurgaon	No N	No PAs or KBAs	o Z	Pow	Low	o Z	Low	Š	High	Over-exploited
JSL Super Steel Limited	Low	No PAs; Basai Wetlands KBA ~7.2km west	o Z	Low	Low	° Z	Low	9 Z	High	Over-exploited
STAR Rating of Jindal United Steel Limited		No PAs or KBAs	o Z	Low	Low	o Z	Low	o Z	High	Safe
Chromeni Steels Pvt Ltd	Low	No PAs or KBAs	°Z	Low		°Z	Low	o Z	High	Semi-Critical

Note: Site assessment and prioritisation were carried out using defined datasets and thresholds. Species-level risks were evaluated through STAR/IBAT, focusing on areas with high to very high threat levels. Proximity to sensitive areas was assessed by identifying sites located within 5 km of Legally Protected Areas and Key Biodiversity Areas, while freshwater biodiversity risks were screened using the WWF Water Risk Filter for very high impacts. Biodiversity significance was further assessed using Global Forest Watch (high significance), ecosystem integrity through the Ecoregion Intactness Index (high) and Emerging hotspots (which identifies regions experiencing recent acceleration in tree cover loss compared to historical baseline patterns using data on tree cover loss from satellite imagery), and water stress via WWF and the Ground Water Resource Assessment (very high risk, over-exploited). These criteria helped assess and prioritize sites based on biodiversity values, ecosystem health, and water risks.

The assessment of JSL's 13 operational sites indicates a generally low risk profile across the portfolio. For the majority of locations, no overlaps were identified with globally recognized protected areas (PAs) or Key Biodiversity Areas (KBAs). All sites exhibit low to medium potential for impact on freshwater and terrestrial biodiversity, with no immediate evidence of Critical Habitat or high ecosystem integrity triggers based on available global datasets.

Ecosystem integrity across all sites was classified as low, suggesting that these areas are already modified or industrial in nature. However, confirmation of natural habitat conversion could not be fully established through remote sensing and will require on-ground verification at select facilities to validate potential ecological changes.

Water-related risks emerged as a more prominent concern. Most sites are situated in regions experiencing high physical water stress, as indicated by global water risk datasets. Notably, locations such as Delhi, Gurgaon, Pathredi, and Basai fall within over-exploited groundwater zones, as per the Central Ground Water Board's 2022 Groundwater Resource Assessment. While elevated water stress alone does not confirm material nature-related

issues, it highlights the need to assess site-level resource dependency and the adequacy of existing mitigation measures, particularly where operational continuity may be sensitive to water availability.

To address these risks and embed nature-positive practices, JSL has adopted a comprehensive Biodiversity Policy<sup>3</sup>. This policy is designed to ensure "No Net Loss" of biodiversity across all phases of project development and operations. It incorporates the AR3T framework— Avoid, Reduce, Restore, Regenerate, and Transform alongside risk assessments and site-specific Biodiversity Management Plans. The policy is applicable to all operational sites and aligns with both the Kunming-Montreal Global Biodiversity Framework and TNFD recommendations, emphasizing continuous monitoring and stakeholder engagement.

Currently, Biodiversity Management Plans are in place for 100% of JSL's manufacturing sites. These plans support the implementation of TNFD-aligned practices, including ecological monitoring, adaptive management, and ongoing improvement. Further details on risk identification and management are provided in Chapter 4.

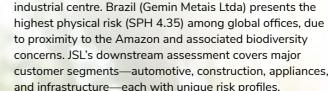


#### **Value Chain Impacts**

JSL's value chain assessment, beyond its direct operations at Jajpur and Hisar, identifies sensitive upstream and downstream sites using the WWF Biodiversity Risk Filter (BRF). The BRF provides landscape-level risk scores—Scape Physical Risk (SPH) and Scape Reputational Risk (SRP) based on proximity to protected areas, ecosystem integrity, species richness, and hydrological stress. These scores, ranging from 1.0 (very low) to 5.0 (very high), help JSL prioritise partners for enhanced environmental management.

Upstream, the value chain includes raw material extraction, procurement, and logistics, such as scrap, chrome ore, bauxite, and transport. In the upstream value chain, suppliers based in Byrnihat (Assam, India) and Ras Al Khaimah (Dubai) have been identified as priority locations requiring risk management strategies. Additional suppliers in India and abroad, such as Jamtara, Durgapur, Singapore, and New Caledonia, are assessed for nature-related risks based on local ecosystem sensitivity and regulatory environment, with higher-risk suppliers subject to increased environmental due diligence.

Downstream, Mumbai (Maharashtra) is a key material location with a high physical risk score (SPH 4.15), reflecting environmental challenges in a major urban-



Engagement with these partners focuses on promoting responsible product use, recycling, and alignment with circular economy principles and environmental standards.







#### Supply chain management approach

Supply chain management is one of the four pillars of JSL's integrated vision and among the 13 key ESG topics identified through the company's double materiality assessment. Recognising its importance, JSL has made supply chain management a critical focus area, committing to assess all suppliers on ESG criteria as part of onboarding and ongoing evaluation.

JSL's value chain risk management goes beyond compliance, focusing on proactive partnership development and capability building. Advanced digital tools are utilised to improve transparency, traceability, and real-time monitoring of environmental performance, enabling early risk identification. These platforms also facilitate supplier engagement and provide resources for implementing environmental management systems and reducing emissions.

The supplier engagement strategy prioritises long-term partnerships based on shared sustainability goals and continuous improvement, ensuring alignment with JSL's Code of Conduct and sustainability objectives. This

includes responsible sourcing, biodiversity conservation, and water stewardship, emphasising mutual commitment in managing value chain risks.

JSL's assessment framework uses materiality thresholds to focus on impacts affecting operational efficiency, compliance costs, and reputational risks. Nature-related dependencies and risks are prioritised if they threaten raw material continuity, drive compliance costs, or risk reputational harm due to biodiversity loss or ecosystem degradation. This ensures resources are allocated to the most significant value chain relationships while maintaining comprehensive oversight.

Looking ahead, JSL aims to further enhance value chain risk management by improving primary data collection and direct partner engagement, especially with mining and transport providers, to gather detailed resource, water, and emissions data. This shift demonstrates JSL's commitment to relationship-based sustainability management across its value chain.

#### **EVALUATING IMPACTS AND DEPENDENCIES**

Strategy

JSL utilized the ENCORE tool to evaluate to assess the materiality of nature-related impacts and dependencies across its operations and supply chain. ENCORE is a sector-level diagnostic tool recommended by TNFD to assess how economic activities interact with nature. It evaluates both dependencies, the reliance of business activities on ecosystem services such as water supply, climate regulation, and flood mitigation and impacts, which refer to pressures exerted on nature, including resource extraction, pollution, and greenhouse gas emissions. The impact classification framework is based on the International Union for Conservation of Nature (IUCN) threat categories and further grouped according to the IPBES drivers of environmental change.

ENCORE assigns materiality ratings ranging from Very High (VH) to Very Low (VL) to indicate the significance of these nature-related interactions at the sector level. These ratings are derived from global datasets and generalized assumptions about sectoral activities. However, ENCORE does not incorporate site-specific ecological conditions, geographic context, or existing mitigation measures. As such, while it provides a valuable baseline for identifying potential nature-related risks and dependencies, actual materiality must be validated through localized

assessments. For JSL, this means interpreting ENCORE's findings in the context of its Indian manufacturing operations, where water-related ecosystem services show high dependency due to regional water stress, and impacts such as emissions and waste generation require site-level evaluation to determine their significance.



#### NATURE-RELATED DEPENDENCIES

Ecosystem Service	Materiality Rating
Provisioning Services	
Water Supply	High
Regulating and maintenance Services	
Rainfall pattern regulation services (at sub-continental scale)	Medium
Water purification services	Medium
Water flow regulation services	High
Flood Mitigation Services	Medium
Storm mitigation services	Medium

Note: There are several other services that JSL is dependent on but provisional or regulating services with medium and high materiality have been mentioned in the table. Metrics for water consumption, air emissions, waste management, and biodiversity restoration activities corresponding to these ecosystem service dependencies are provided in the Metrics & Targets section of this report. Risk assessment: Physical and reputational risks related to ecosystem service disruption (particularly flood, storm, and water availability risks) are detailed in the Risk & Impact Management section, including specific risk scores and mitigation strategies.



For the iron and steel manufacturing sector, ENCORE highlights a high dependency on provisioning services, particularly water supply, which is critical for cooling, steam generation, and dust suppression. This is especially relevant for JSL's operations in India, where several facilities are located in regions experiencing high physical water stress and groundwater over-extraction.

Among regulating and maintenance services, water flow regulation also shows high materiality, as stable and predictable water availability is essential for uninterrupted production. Medium-level dependencies are noted for rainfall pattern regulation, water purification, flood mitigation, and storm mitigation services. These ecosystem functions support long-term water security, protect infrastructure from climate-related events, and help maintain the chemical integrity of water used in manufacturing. While JSL's sites are primarily located in highly modified industrial zones, these dependencies remain relevant in the context of regional hydrological stress and climate variability

#### **NATURE-RELATED IMPACTS**

Pressures	Rating
Disturbance (e.g. noise, light)	Very High
Emission of GHG	High
Emission of non-GHG air pollutants	High
Generation and release of solid waste	Medium
Emissions of toxic pollutants to water and soil	Very High
Volumes of water use	Medium

Similar to dependencies, impact assessment utilizes ENCORE's standardized sector-level impact evaluation framework for iron and steel manufacturing. ENCORE evaluates environmental pressures based on the International Union for Conservation of Nature (IUCN) threat categories and groups them according to the IPBES drivers of environmental change. The impact classification framework assigns materiality ratings ranging from Very High (VH) to Very Low (VL).



The impacts outlines detail key environmental pressures associated with the manufacturing of steel, as identified through ENCORE's sector-level assessment. These pressures, ranging from emissions and resource use to physical disturbances, represent potential drivers of nature loss and ecosystem degradation. For JSL's operations, even though most sites are located in highly modified industrial zones, these pressures remain relevant due to their cumulative impact on the ecosystems in which facilities are located. High and very high ratings for disturbance, greenhouse gas emissions, and toxic discharges to soil and water underscore the need for robust environmental management systems.

The high and medium-rated nature-related impacts and dependencies identified through ENCORE align closely with the ESG material topics established in JSL's double materiality assessment. Specifically, Energy & Emissions, Circular Economy & Waste Management, and Water & Wastewater Management are directly connected to the pressures and ecosystem service dependencies highlighted in the ENCORE analysis.

While ENCORE provides standardized sector ratings, JSL validates these assessments through localized evaluation considering regional environmental conditions, proximity to sensitive ecosystems, and effectiveness of implemented mitigation measures at Jajpur and Hisar manufacturing facilities.



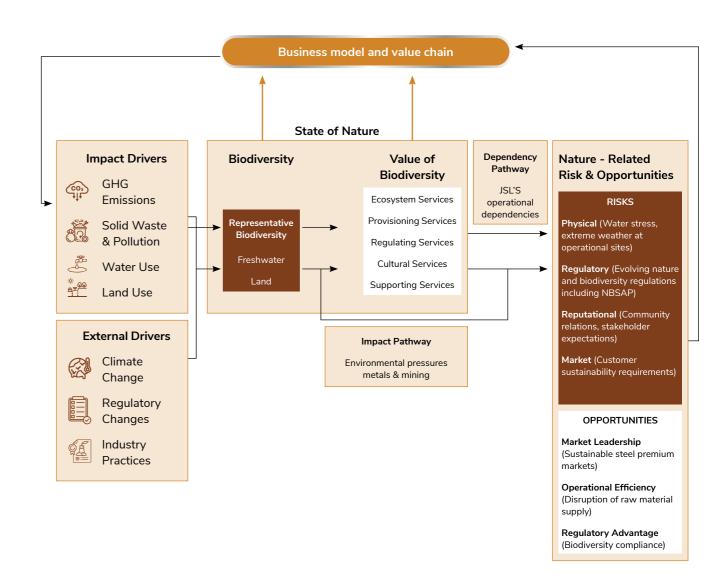
### Dependencies and Impacts: understanding interconnected pathways

JSL's manufacturing operations are deeply intertwined with natural systems, relying on ecosystem services while also influencing them through various environmental impacts. Recognizing these interconnections is essential for managing risks and identifying opportunities that support both business resilience and environmental responsibility.

JSL's steel production affects and depends on the environment in two main ways: through its reliance on nature's resources (dependencies) and the impacts of its industrial activities (impacts). The company depends on vital ecosystem services such as water for cooling and processing, regional air quality, and healthy biodiversity to

maintain resilient local ecosystems. Disruptions to these services—whether from JSL or broader industrial activity—can directly affect operations, resource availability, and costs.

At the same time, the company's operations create pressures on natural systems. These include greenhouse gas emissions, air and water pollutants, significant water use, and physical disturbances to land and biodiversity. Such impacts can degrade local ecosystems, reduce the quality and availability of natural resources, and contribute to broader environmental challenges.





Because JSL depends on the same systems it affects, there are feedback loops with direct business consequences. For example, the company's high dependency on clean water intersects with its high materiality for water and soil pollution. Poor water quality—caused by JSL's operations or by cumulative industrial activity—can increase treatment costs, disrupt production, and threaten the long-term sustainability of its facilities.

Similarly, JSL's reliance on clean air is linked to its emissions profile. Deteriorating air quality may require greater investment in pollution controls and influence the company's relationship with surrounding communities and regulators—key factors in maintaining its social license to operate.

These realities underline why JSL's significant investments in climate and nature initiatives are both an environmental obligation and a business necessity. By reducing emissions, improving resource efficiency, and strengthening environmental management, JSL not only helps safeguard the ecosystems it depends on but also positions itself to adapt to regulatory changes and meet rising expectations for sustainable production.

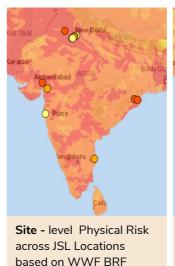


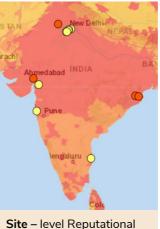
#### **RISKS AND OPPORTUNITIES**

To evaluate nature-related risks across its operations, JSL has utilized the WWF Biodiversity Risk Filter (BRF), a geospatial tool designed to assess biodiversity-related risks at the site level. Unlike sector-level tools such as ENCORE, the WWF BRF provides location-specific insights by integrating global environmental datasets with spatial overlays of operational assets. The tool assesses exposure to biodiversity loss, ecosystem degradation, and water-related risks based on proximity to protected areas,

species richness, ecosystem integrity, and hydrological stress. This site-specific approach enables a more granular understanding of nature-related risks, allowing JSL to identify operational locations with elevated exposure and prioritize mitigation actions accordingly. The findings from the WWF BRF have been used to inform the risk screening process, which is further supported by field-level assessments and biodiversity management plans.

## FIGURE 1 BRF SITE – LEVEL PHYSICAL AND REPUTATIONAL RISK ACROSS REPORTING BOUNDARY

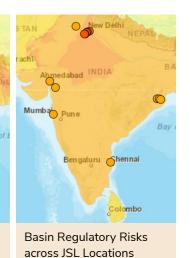




Risks across JSL Locations

based on WWF BRF





based on WWF WRF

n/a Very Low Risk

Very High Risk

The WWF Biodiversity and Water Risk Filter assessment reveals that JSL's operations face significant exposure to interconnected environmental stresses that require systematic management approaches. The analysis demonstrates how industrial operations exist within broader ecological and social systems, where operational resilience depends on maintaining healthy relationships with surrounding environmental conditions and community expectations.

The maps presented above illustrate the WWF Biodiversity and Water Risk Filter assessment of ecosystem and water-related risks across JSL's operational facilities in India. The color-coded overlays highlight basin-level risk intensity, ranging from very low (grey/yellow) to very high (red). Facility locations are marked, allowing for a spatial comparison of risk exposure across sites. For JSL, the WRF results show that:

» Site - level physical risks are elevated across several JSL facilities, with a significant proportion of sites falling under high or very high-risk categories, indicating heightened vulnerability to climate-related hazards such as extreme heat and water stress. With corporate and other office locations showing low to medium risk levels.

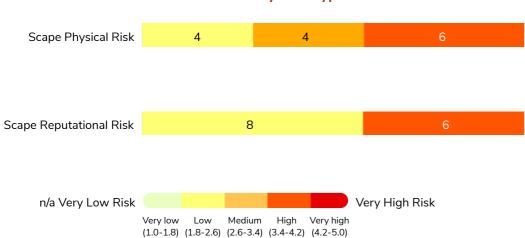
- Reputational risks are prominent at multiple locations, driven by factors like media scrutiny, community perception, and environmental compliance, with several sites marked in high-risk zones requiring proactive stakeholder engagement.
- » Basin physical risks under the Water Risk Filter (WRF) framework show widespread exposure to waterrelated stressors, including drought and flood risks, necessitating enhanced water resource management.
- » Basin-level regulatory risks are high for sites in Northern India.

These maps provide a spatially explicit understanding of the company's exposure to various risks, supporting prioritization of facilities where proactive risk management strategies will be most essential.





#### Number of Sites by Risk Type



JSL's operations are exposed to significant physical and reputational risks across its sectors. Several sites face high-risk levels, underscoring the potential for operational disruptions and increased costs due to environmental and regulatory challenges. This highlights how important comprehensive risk management strategies are in mitigating these vulnerabilities

The WWF Biodiversity and Water Risk Filter assessment identifies the most pressing environmental and social risks across JSL's operational footprint. The analysis reveals that: Extreme heat is the most widespread physical risk, affecting all 13 assessed sites. This underscores the growing impact of climate change on operational continuity, workforce safety, and energy demand. Air condition, media scrutiny, pollution, and land/freshwater/sea use change also affect all 13 sites,

indicating a broad exposure to both environmental degradation and reputational vulnerabilities. These risks reflect the intersection of ecological stress and stakeholder expectations.

Water availability emerges as a critical operational risk, with 13 sites exposed across moderate to very high levels. Given the water-intensive nature of industrial operations, this highlights the need for robust water stewardship and contingency planning.

Wildfire hazard is present at 6 sites, suggesting localized but potentially severe climate-related threats that could disrupt operations and pose safety risks.

Labor and human rights, Indigenous Peoples and Local Communities (IPs/LCs) land and territory rights, and resource scarcity (food, water, air) are also identified as significant risks. These indicators point to the importance of integrating social equity and ethical governance into operational planning.

JSL adopts a holistic risk management approach that addresses not only climate hazards but also the vital dimensions of nature and biodiversity across its operational footprint. The WWF Biodiversity Risk Filter serves as a cornerstone for evaluating site-specific vulnerabilities, offering a comprehensive assessment that goes beyond climate to capture ecological and social risks. Accordingly, nature and biodiversity considerations are embedded in the assessment, recognizing that operational resilience depends as much on healthy ecosystems as on climate adaptation. Field surveys and stakeholder engagement have been integral, ensuring that local habitats, species richness, and ecological processes are factored into risk management plans. The structured methodology enables JSL to map key biodiversity values, such as protected areas, critical habitats, and species at risk, thereby identifying intersections where business activities may impact or depend upon natural systems.

The assessment highlights the interconnectedness of environmental stressors—such as pollution, land use change, and water scarcity—with the integrity of surrounding ecosystems. All 13 sites face broad exposure to biodiversity risks, including habitat fragmentation,

freshwater depletion, and pressures on local flora and fauna. These findings reflect the urgent need for stewardship actions to safeguard ecosystem services and maintain natural capital.

JSL's strategy moves beyond compliance, targeting the enhancement of biodiversity through restoration initiatives, invasive species management, and collaborative conservation with local communities. By integrating nature and climate in an integrated focus, the company aims to build operational resilience while generating long-term value for both business and biodiversity.

As climate risks—such as extreme heat, drought, and flooding—are mapped and addressed, so too are the risks to vital habitats, wildlife corridors, and ecological connectivity. Sites like Jajpur, Hisar, and Pathredi not only contend with climatic extremes but also face biodiversity pressures that require tailored mitigation and restoration strategies.

The following table summarizes the various physical, climate, and biodiversity risks across JSL's facilities, providing a spatially explicit overview of hazards and opportunities for integrated resilience-building. This assessment underscores that operational continuity and reputation hinge on a balanced approach to both climate and nature, aligning stakeholder expectations with ethical, sustainable business practices.



#### TABLE 3 SUMMARY OF THE VARIOUS NATURE-RELATED PHYSICAL RISKS ACROSS JSL SITES

SI. No.	Site Name	Water Stress	Drought	Urban Flooding	Coastal Flooding	Riverine Flooding	Landslide	Extreme Heat	Cyclone and Wind
1	JSL Jajpur	High	High	High	No Hazard	No Hazard	No Hazard	High	High
2	Sukinda Mines	High	High	High	No Hazard	No Hazard	No Hazard	High	High
3	JSL Hisar	High	High	Medium	No Hazard	High	No Hazard	High	No Data
4	Jindal Stainless Steelway Limited (JSSL), Chennai	High	High	Low	No Hazard	Medium	No Hazard	High	High
5	Jindal Stainless Steelway Limited (JSSL), Mumbai	Medium	Medium	High	No Hazard	Low	High	High	High
6	Jindal Stainless Steelway Limited (JSSL), Pathredi	High	High	High	No Hazard	No Hazard	No Hazard	High	No Data
7	Jindal Stainless Centre Gurgaon Office	High	High	High	No Hazard	No Hazard	No Hazard	High	No Data
8	Jindal Stainless Steelway Limited (JSSL), Gurgaon	High	High	High	No Hazard	No Hazard	No Hazard	High	No Data
9	Chromeni Steels Pvt Ltd, Ahmedabad	High	High	Low	No Hazard	No Hazard	No Hazard	High	High
10	Jindal Stainless Steelway Limited (JSSL), Vadodara	High	High	High	No Hazard	No Hazard	No Hazard	High	Medium
11	Corporate Office, Jindal Centre, Delhi	High	High	High	No Hazard	Medium	No Hazard	High	No Data
12	JSL Super Steel Limited	High	High	High	No Hazard	No Hazard	No Hazard	High	No Data
13	Jindal United Steel Limited (JUSL)	High	High	High	No Hazard	No Hazard	No Hazard	High	High

Note: The WWF Biodiversity Risk Filter assessment also identifies wildfire hazard at select sites as a climate-related physical risk associated with extreme heat conditions. Risk levels are based on Physical Climate Risk Assessment methodology and site-specific environmental conditions.

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#### PHYSICAL CLIMATE RISKS ACROSS JSL SITES: IMPLICATIONS AND ADAPTIVE MEASURES

Strategy

Water Availability Risk (includes water stress and drought)  Type:  "Vadodara "> Ahmedabad Chronic*)  Delhi-NCR  Timeframe: Short to Medium Term  Medium Reduced or unavaleability of conservation and license to ope



Climate Hazard	Applicable Site	Potential business implication	Potential opportunities
Climate mazard	Locations	Potential business implication	Potential opportunities
Flooding Risk (urban, coastal,	ban, coastal, and Future risk Centres		» Natural flood management through watershed conservation and wetland
and riverine flooding)  Type:	<ul><li>» Jajpur</li><li>» Hisar</li><li>» Mumbai</li><li>» Gurugram</li></ul>	» Physical damage to the structural integrity of buildings, electrical equipment, machinery, and utilities.	restoration providing protection and biodiversity benefits  » Flood Risk Assessment & Mitigation  – Conducting regular flood risk assessments and implementing
(Acute# and Chronic*) Timeframe:	<ul><li>» Delhi-NCR</li><li>» Vadodara</li><li>» Ahmedabad</li></ul>	<ul> <li>Deterioration in water quality due to carry over of sediments along with the storm run-off.</li> <li>Increased cost of water</li> </ul>	comprehensive mitigation and emergency response plans.  » Stormwater & Drainage Management – Designing, upgrading, and maintaining efficient drainage systems to prevent
Short to	Medium Baseline	treatment.  » Supply chain disruption.	waterlogging and manage stormwater runoff.
Medium Term	and Future risk  » Chennai	<ul> <li>Restricted access to sites due to flooding; impacting the delivery of raw materials.</li> </ul>	<ul> <li>Nature-Based Flood Solutions –</li> <li>Implementing green infrastructure</li> <li>and other nature-based approaches</li> </ul>
		» Increased logistics costs.	to reduce flood impacts and surface runoff.
		» Risk to health and safety of the employees.	» Early Warning & Preparedness – Installing advanced flood forecasting
		» Power failure.	and alert systems to improve
		<ul> <li>Business disruptions, temporary closure, loss in revenue.</li> </ul>	<ul> <li>preparedness and response times.</li> <li>Asset Protection &amp; Continuity –</li> <li>Elevating sensitive equipment, securing</li> </ul>
		Offices  » Flooding can overwhelm	IT systems and records, and installing backup power and communications to safeguard operations.
		drainage systems, causing backflow and further exacerbating road flooding within the campus/ in the vicinity.	» Rainwater Harvesting & Runoff Reduction – Capturing and utilizing rainwater within sites to reduce runoff and support water needs.
		» Disruption to business operations and employee safety.	» Training & Capacity Building – Building employee and supplier awareness and skills for flood safety and emergency
		» Damage to IT systems and essential documents.	response.  » Collaboration & Stakeholder
		<ul> <li>Increased costs for business continuity and recovery.</li> </ul>	Engagement – Partnering with local authorities, communities, and supply chain partners to strengthen flood resilience and infrastructure.
			<ul> <li>Urban &amp; Community Resilience         <ul> <li>Supporting urban drainage</li> <li>improvements, flood risk mapping, and public-private initiatives for community flood preparedness.</li> </ul> </li> </ul>

Climate Hazard	Applicable Site Locations	Potential business implication	Potential opportunities
Landslide	High Baseline and Future risk	Manufacturing Sites & Service Centres	» Site Planning & Infrastructure Resilience – Avoid siting critical
Type:			facilities in high-risk landslide zones,
(Acute#)	» Mumbai	<ul> <li>Damage to infrastructure, machinery, and storage</li> </ul>	integrate slope stabilization measures (e.g., retaining walls, terraces, drainage
Timeframe:		facilities.	systems), and apply landscaping
Short Term		» Disruption of supply chains and delays in production due	techniques such as deep-rooted vegetation.
		to blocked access routes.	» Monitoring & Risk Assessment –
		» Increased repair and recovery costs.	Conduct regular geotechnical surveys to assess soil stability and inform
		» Employees face injury or	proactive maintenance.
		entrapment risks during landslide events.	<ul> <li>Collaboration &amp; Early Warning –</li> <li>Partner with local authorities to</li> </ul>
		Offices	strengthen early-warning systems, land-use planning, and community
		» Partial or total collapse of	awareness programs.
		buildings, particularly in hilly areas.	» Emergency Preparedness – Develop and regularly test evacuation routes
		» Damage to critical IT systems, data servers, and essential documents.	and emergency response protocols for offices and operational sites.
		» Employees may be unable to reach the office, causing operational downtime.	





Climate Hazard	Applicable Site Locations	Potential business implication	Potential opportunities
Climate Hazard  Extreme Heat  Type: (Acute#) Timeframe: Short to Medium Term		Manufacturing Sites & Service Centres  » Equipment overheating leading to breakdowns or inefficiencies.  » Product quality deterioration due to heat-sensitive materials.  » Excessive evaporation losses in cooling towers leading to excessive make-up water requirement.  » Increased power and water demand for cooling and associated costs.  » Early wearing of the equipments/materials, requiring replacement.  » Increased risk of heat-related illnesses like heatstroke and dehydration.	<ul> <li>Potential opportunities</li> <li>Infrastructure &amp; Climate-Responsive         Design – Considering appropriate         temperature ranges in the design of         buildings, equipment, and cooling         systems to ensure resilience under         extreme heat conditions.</li> <li>Heat Stress Management – Developing         and implementing comprehensive heat         stress management plans, including         work-rest cycles, shaded areas, and         access to hydration.</li> <li>Cooling &amp; Ventilation Systems –         Installing and upgrading industrial         cooling systems (e.g., air conditioners,         fans, ventilation) and energy-efficient         HVAC systems in offices, supported         by smart temperature controls and         insulation improvements.</li> <li>Workforce Protection – Providing         hydration stations, cool rest zones, and         adjusting work schedules to cooler         parts of the day to protect employee         health and productivity.</li> </ul>
		Employee discomfort and reduced productivity due to heat.      Risk of IT system overheating affecting critical operations.      Increased energy costs from higher air conditioning use.	<ul> <li>Awareness &amp; Training – Delivering ongoing training on heat safety, recognizing signs of heat stress, and promoting best practices for working in high-temperature conditions.</li> </ul>

Climate Hazard Applicable Site Locations		Potential business implication	Potential opportunities	
Cyclone and Wind	High Baseline and Future risk	Manufacturing Sites & Service Centres	<ul> <li>Cyclone and High-Wind Preparedness</li> <li>Reinforcing structures, storm- proofing roofs and windows, and</li> </ul>	
(Acute#)	<ul><li>» Jajpur</li><li>» Chennai</li></ul>	» Machinery and infrastructure damaged by strong winds and flooding.	installing storm shutters to enhance resilience against high winds.	
	<ul><li>» Navi Mumbai</li><li>» Vadodara</li><li>» Ahmedabad</li></ul>	<ul> <li>Interruptions in production schedules due to damage or evacuation.</li> </ul>	<ul> <li>Equipment and Operational Security</li> <li>Anchoring machinery and critical systems, and installing backup power</li> </ul>	
	, , umedabad	<ul> <li>Risk of injury or fatality due to high winds or falling debris.</li> </ul>	generators to ensure continuity during extreme weather events.  » Emergency Response and Evacuation	
		<ul> <li>Offices</li> <li>Office buildings may face flooding, power outages, or</li> </ul>	<ul> <li>Implementing evacuation plans and conducting regular drills to strengthen organizational readiness.</li> </ul>	
		structural damage.  » Employees may be stranded or injured during cyclonic events.	<ul> <li>Training and Community Engagement         <ul> <li>Providing ongoing training for employees and local communities on how to prepare for and respond to</li> </ul> </li> </ul>	
		<ul> <li>Loss of data and business continuity due to infrastructure damage.</li> </ul>	cyclones.  » Flexible Operations Management – Implementing remote work policies during extreme weather events to maintain productivity and safety.	

Note: 1) Acute Risk: Shocks, event-driven risks such as increased severity of cyclones, floods and other extreme weather events; Chronic Risk: Stresses, longer-term shifts in climate patterns that may cause sea level rise, increased frequency of heatwaves and changes in rainfall patterns. 2) Short-term horizon (1 - 3 years), Medium term horizon (3 - 10 years), and Long-term horizon (10 - 25 years); 3) Physical Risk Focus: This assessment addresses environmental hazards directly impacting operations. BRF-identified transition risks (land use policy changes, resource scarcity regulations, media scrutiny) are covered separately in the Transition Risks section. Water stress and drought are integrated as water availability challenges requiring similar management responses. Multiple flooding types are addressed through flood preparedness approaches. Extreme heat incorporates wildfire hazard as a related climate risk where applicable based on BRF findings.





## Understanding transition risks and opportunities for nature

The TNFD defines transition risks as those that arise when an organization's strategy, operations, or investments are misaligned with the evolving landscape of nature-related regulations, technologies, markets, and societal expectations. These risks are driven by four major forces: policy and legal changes, such as new biodiversity regulations or mandatory nature disclosures; technological shifts that render existing practices obsolete in favor of nature-positive innovations; market dynamics that reflect growing demand for sustainable, traceable products; and reputational pressures from stakeholders concerned about ecosystem degradation, water use, and land impacts.

The BRF assessment revealed several transition risk categories affecting JSL's operations that require strategic management distinct from the physical environmental risks addressed through operational resilience planning. Media scrutiny and reputational pressures, land use change regulatory frameworks, and resource access policies emerged as systematic transition risks requiring proactive stakeholder engagement, policy positioning, and market strategy development. These risks operate through reputational mechanisms, regulatory requirements, and market dynamics that affect strategic positioning rather than direct operational impacts. JSL's early adoption of TNFD reporting framework, BRA/BMP development across manufacturing sites provide strategic advantages for managing these transition risks through proactive

engagement with emerging regulatory and market frameworks. The company's commitment to transparent disclosure and community partnership development supports resilience against reputational and regulatory pressures while positioning JSL for competitive advantages within sustainability-focused markets.

These risks are not isolated from climate-related risks and are deeply interconnected. Ecosystems play a critical role in both emitting and sequestering greenhouse gases, and in supporting climate adaptation through services like flood regulation, temperature moderation, and water purification. As such, nature-related risks must be assessed in synergy with climate-related risks, as outlined in JSL's TCFD-aligned climate risk disclosures. For example, the TCFD-aligned climate risk assessment for JSL highlights:

- » India's 2070 net-zero target is expected to drive stricter energy performance requirements and reduce fossil fuel subsidies.
- » Regulatory mechanisms like the Carbon Credit Trading Scheme (CCTS) and international policies such as the EU's Carbon Border Adjustment Mechanism (CBAM) may increase compliance costs and affect trade.
- » Rising global demand for stainless steel to support clean energy infrastructure may lead to raw material price volatility and supply chain disruptions.

The following assessment presents JSL's systematic approach to managing nature-related transition risks across four key driver categories, demonstrating how evolving regulatory, technological, market, and financial frameworks create strategic challenges that require proactive management through policy engagement, stakeholder collaboration, and market positioning.

Transition Driver	Nature-Related Risk	Implications on Business Operations
Policy and Legal	Introduction of biodiversity protection laws, mandatory nature-related disclosures (including TNFD adoption requirements), and landuse restrictions including protected area buffer zones. BRF assessment identified media scrutiny and land use change pressures as systematic risks across all 14 operational sites requiring regulatory engagement strategies.	<ul> <li>Enhanced compliance and reporting costs due to evolving regulatory frameworks including biodiversity monitoring, species protection measures, and ecosystem restoration requirements</li> <li>Project approval delays or restrictions impacting expansion timelines and operational flexibility in biodiversity-sensitive areas</li> <li>Land access limitations requiring facility redesign, relocation planning, or enhanced conservation offset programs</li> <li>Infrastructure investment requirements for biodiversity monitoring, restoration activities, and community engagement systems</li> <li>Regulatory threshold management requiring monitoring and adaptive management to prevent operational disruptions</li> </ul>
Technology	Shift toward nature- positive technologies including low-impact resource extraction, water-efficient systems, biodiversity monitoring tools, and circular economy innovations. Technology transition creates both investment requirements and competitive positioning opportunities for early adopters.	<ul> <li>Capital investment requirements for sustainable technology implementation including advanced water recycling, emission control systems, and biodiversity monitoring infrastructure</li> <li>Workforce development needs for operating advanced environmental management systems and biodiversity conservation technologies</li> <li>Legacy system transition risks including potential stranded assets and operational disruptions during technology upgrades</li> <li>Innovation partnership requirements with technology providers, research institutions, and conservation organizations to access cutting-edge solutions</li> <li>Performance standard compliance requiring technology systems that meet evolving environmental performance benchmarks</li> </ul>
Market & Reputation	Growing demand for sustainable, traceable products with verified biodiversity impact credentials. Stakeholder expectations for ecosystem stewardship, community engagement, and transparent environmental reporting create reputational risks and market positioning challenges. BRF-identified media scrutiny affects all operational sites through stakeholder expectation mechanisms.	<ul> <li>Product differentiation requirements necessitating sustainability certifications, biodiversity impact verification, and supply chain transparency systems</li> <li>Market access conditions including customer sustainability requirements, procurement criteria changes, and premium product positioning needs</li> <li>Stakeholder engagement intensification requiring systematic community partnership programs, NGO collaboration, and transparent communication strategies</li> <li>Brand reputation management through proactive environmental performance communication and crisis response capability development</li> <li>Competitive positioning challenges requiring demonstrated environmental leadership and measurable conservation outcomes</li> </ul>



<b>Transition Driver</b>	Nature-Related Risk	lm	plications on Business Operations
Financial/Market Instruments	<b>3</b>	»	Limited access to green finance if nature risks are not adequately managed
	green finance criteria, and biodiversity-linked	<b>»</b>	Higher cost of capital for operations deemed environmentally non- compliant
	investment standards		Need for alignment with evolving sustainability-linked financial frameworks
		<b>»</b>	Opportunity to unlock green bonds and nature-linked loans through improved performance
		<b>»</b>	Strategic imperative to embed nature metrics into financial planning and disclosures

Despite the risks, the transition to a nature-positive economy presents significant opportunities for JSL. TNFD outlines five key opportunity areas that JSL can leverage. First, Resource Efficiency involves adopting processes that use fewer natural resources like water and energy, thereby reducing environmental impact. Second, Markets offer potential through the development of less resource-intensive products and nature-based solutions, enabling JSL to diversify its portfolio in alignment with sustainability goals. Third, Financing opens access to green financial instruments such as sustainability-linked loans and nature-focused investment funds, supporting long-term environmental initiatives. Fourth, Resilience can be strengthened by diversifying biodiversity-related

resources and investing in nature-aligned business areas like ecosystem restoration. Finally, Reputation benefits from proactive nature stewardship, enhancing stakeholder trust and positioning JSL as a preferred partner in sustainable supply chains and investment portfolios.

JSL has already taken proactive steps to understand and address these transition risks. The company has conducted comprehensive assessments covering water usage, waste management, climate-related impacts, physical risks, and transition risks. Based on these studies, JSL has implemented several initiatives and identified further opportunities to strengthen its sustainability strategy and ensure long-term competitiveness. A summary of these actions and opportunities is presented in the table below:

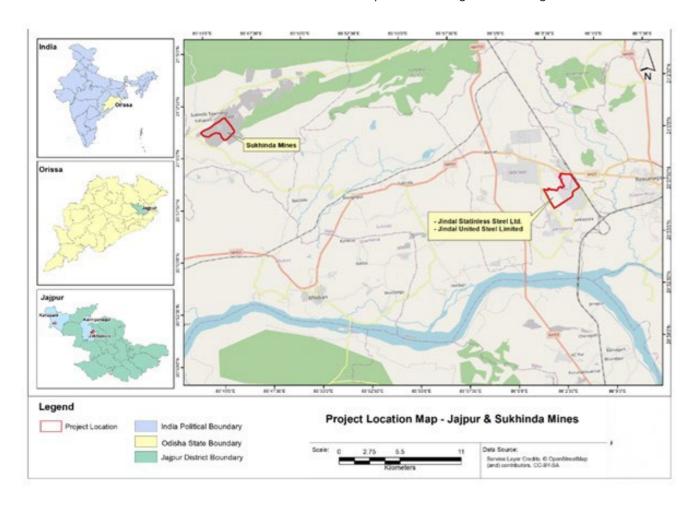
Opportunity Area	Description	JSL India's Actions & Examples (FY25)	Future Opportunities & Mitigation Measures
Resource Efficiency	Transition to more efficient services and processes that require fewer natural resources	- Installed advanced water recycling systems at Hisar and Jajpur - Adopted energy- efficient furnaces and scrap-based electric arc furnaces - Implemented Integrated Water Resource Management (IWRM) and Life Cycle Assessment (LCA) tools	<ul> <li>Environmental certification achievement including water stewardship, circular economy, and biodiversity management credentials enhancing market positioning</li> <li>Enhanced monitoring enabling real-time optimization of water, energy, and material flows across operational facilities</li> <li>Circular material flow systems achieving comprehensive waste-to-resource conversion and supporting zero waste to landfill objectives</li> <li>Resource efficiency leadership positioning JSL</li> </ul>
			as industry benchmark for sustainable resource management practices

Opportunity Area	Description	JSL India's Actions & Examples (FY25)	Future Opportunities & Mitigation Measures
Markets	Development of less resource- intensive products and nature- positive diversification	- Expanded product portfolio for green infrastructure (metro, water treatment) - Developed stainless steel solutions for renewable energy applications	<ul> <li>Launch nature-positive product lines</li> <li>Explore biodiversity credits and offsets</li> <li>Advocate for supportive policies</li> <li>Customer partnership development supporting shared sustainability objectives and collaborative conservation initiatives</li> </ul>
Financing	Access to biodiversity- related and green financial instruments	- Aligned disclosures with BRSR, GRI, and TNFD - Exploring green financing instruments - Committed ₹700 crore to decarbonisation (renewables, green hydrogen, carbon capture)	<ul> <li>Explore nature-focused investment funds</li> <li>Develop biodiversity-linked performance metrics</li> </ul>
Resilience	Strengthening business resilience through biodiversity- aligned strategies	- Conducted Biodiversity Risk Assessments (BRA) using ENCORE and WWF tools - Implemented Biodiversity Management Plans (BMPs) at key sites - Strengthened supply chain resilience through backward integration	<ul> <li>Ecosystem service investment in watershed restoration, habitat conservation, and natural infrastructure providing operational resilience and community benefits</li> <li>Invest in afforestation and habitat restoration</li> <li>Analyze feasibility of carbon capture and storage (CCS)</li> <li>Build climate-resilient supply chains</li> <li>Conservation partnership expansion creating landscape-level conservation impacts while supporting operational sustainability objectives</li> </ul>
Reputation	Enhancing stakeholder trust through nature stewardship	- Published TNFD- aligned report - Engaged with local communities and indigenous groups - Conducted ESG board-level training and stakeholder workshops	<ul> <li>Industry leadership positioning through demonstrated environmental innovation, conservation outcomes, and stakeholder engagement excellence</li> <li>Stakeholder trust building via transparent reporting, measurable conservation impacts, and systematic community benefit delivery</li> <li>Supply chain partnership enhancement supporting customer sustainability objectives and collaborative environmental stewardship initiatives</li> <li>Social license strengthening through community partnership development, environmental benefit delivery, and transparent stakeholder communication</li> </ul>

#### JAJPUR OPERATIONS (FACILITY AND SUKINDA MINES)

JSL's Jajpur operations in Odisha comprise two distinct but operationally linked facilities: the Jajpur manufacturing plant and the Sukinda chromite mines. Located approximately 50 kilometers apart, these operations form a critical component of JSL's vertically integrated supply chain, where chromite extracted from Sukinda mines supports stainless steel production at the Jajpur facility.

Both facilities operate within the broader Odisha landscape, which presents unique biodiversity and environmental considerations ranging from modified industrial habitats to forest ecosystems with significant wildlife connectivity. The integrated nature of these operations necessitates coordinated environmental stewardship that addresses both industrial manufacturing impacts and mining-related ecological interfaces.



This section draws primarily from comprehensive Biodiversity Risk Assessments (BRA) and Biodiversity Management Plans (BMP) completed for the Jajpur manufacturing facility, which provide detailed site-specific biodiversity metrics, risk scores, and management frameworks.

#### **JAJPUR FACILITY**

The Jindal Stainless Limited (JSL) Jajpur Plant, located in Odisha, is a major integrated stainless steel manufacturing facility contributing significantly to JSL's overall production capacity. The plant produces a wide range of stainless-steel products including slabs, coils, and strips, and plays a key role in meeting domestic and international demand.

The plant is situated in a landscape classified under TNFD Biome Guidance as Urban and Industrial Ecosystems (T7.4). The surrounding area consists of modified habitats, primarily built-up area, agricultural land, and open scrubland, with no natural habitats, no Key Biodiversity Areas (KBAs), and no direct habitat connectivity to high biodiversity zones. However, the facility operates within the broader ecological context of Odisha's protected area network, with Kapilash Wildlife Sanctuary (26.2 km SW) and Hadgarh Wildlife Sanctuary (32.16 km NE) lying within a 50km radius, though no direct interaction with important biodiversity values are present.

Jajpur operations face multiple overlapping environmental risks that create compounded vulnerability requiring targeted adaptation strategies. The facility is classified as Material & Sensitive due to its operational scale across 862.28 acres and industrial processes that interface with regional environmental stresses.

Nature-related risks includes high exposure to water stress, drought, and extreme heat - hazards consistently identified across JSL's operational sites. The combined Jajpur Unit and Sukinda Mines facility specifically faces high risks from water stress, drought, urban flooding, extreme heat, and cyclone/wind events, with no hazard exposure to coastal flooding, riverine flooding, or landslides. These

multiple overlapping hazards indicate compounded climate vulnerability requiring enhanced resilience planning.

Using WWF's Biodiversity Risk Filter and IBAT assessments, the facility shows elevated physical risks due to industrial water use intersecting with regional water stress, alongside reputational risks driven by environmental compliance expectations and community perceptions. However, Global Forest Watch analysis confirmed no Key Biodiversity Areas exist within 50km radius of operations, providing important context for biodiversity impact potential.

The facility implements comprehensive environmental management systems aligned with JSL's commitment to No Net Loss (NNL) in biodiversity. Key initiatives include:

- Metal Recovery and Circularity: JSL operates an advanced facility at its Jajpur site to recover valuable metals from ferrochrome and SMS slag through a multi-stage process including screening, hydrocycloning, and flotation. In FY25, 29,144.53 MT of metal were recovered and reused in steelmaking, with 3,08,336.9 MT of ferrochrome slag repurposed.
- » Waste Management Excellence: Implementation of circular economy principles with minimal waste sent to landfills (approximately 42,852 MT of non-hazardous waste), demonstrating the company's commitment to sustainable waste management.
- » Water Stewardship: Application of JSL's Corporate Water Roadmap integrating best practices in water and wastewater management across operational levels.



#### **SUKINDA MINES**

Unlike the industrial ecosystem context of the Jajpur facility, Sukinda operations face relatively different biodiversity-sensitive risks due to their location within reserve forest landscapes and proximity to critical wildlife corridors. The mining area represents interface with natural ecosystems, requiring specific management approaches for forest-surrounded operations.

The operational context presents unique challenges where mining activities intersect with elephant movement patterns and forest connectivity. This positioning creates both operational considerations and opportunities for contributing to landscape-level conservation, particularly regarding the proposed South Odisha Elephant Corridor connectivity. The mining operations must navigate the balance between resource extraction activities and maintaining ecosystem functionality within this ecologically sensitive region.

The Sukinda mining area, surrounded by reserve forests, has experienced habitat conversion but remains known for elephant presence and ecological significance. The broader landscape shares contiguous habitat with the proposed South Odisha Elephant Corridor, specifically the segment from Sargiguda RF to Singari RF in the Kalahandi South Division, although this corridor is not currently included in the Right of Passage (2017). This positioning places the mining operations at a critical interface between

industrial activities and wildlife movement patterns. The chromite extraction operations employ comprehensive environmental safeguards designed to minimize ecosystem disruption:

- » Tailings management excellence includes Tailings Storage Facilities (TSFs) with necessary policy applicable to owned & operated facilities at Kaliapani, aligned with Global Industry Standard on Tailings Management (GISTM); processing includes multistage treatment including screening, hydrocycloning, and flotation to recover valuable chromite materials, engineered tailing ponds lined with high-density polyethylene (HDPE) sheets to prevent seepage and protect surrounding ecosystems, and treated sludge is recycled within system; water largely recycled from tailing ponds supporting zero-discharge policy
- » The Mine Closure Plan (MCP) integrates closure planning from project feasibility through life of mine, ensuring alignment with post-closure biodiversity objectives. Key elements include progressive rehabilitation during operations with slope grading and revegetation, performance targets covering mine design, rehabilitation, post-mining land use, and biodiversity. Stakeholder consultation in also embedded in the process and includes consultations with local communities and relevant authorities.

Both facilities contribute to JSL's broader exposure to systemic environmental risks, particularly water-related vulnerabilities that affect operational continuity. The integrated operations face shared challenges from extreme heat, water stress, and climate-related disruptions that require coordinated adaptation strategies as highlighted in the following sections.



#### Water and Wastewater Management

JSL has developed a Water and Waste Management Action Plan for Jajpur addressing identified risks through implementation phases. The roadmap includes water conservation measures such as rooftop rainwater harvesting feasibility studies, cooling tower optimization, and enhanced monitoring systems. For waste management, the plan addresses regulatory compliance gaps through comprehensive waste inventory development, standardized nomenclature alignment with Hazardous Waste Rules 2016, and implementation of robust SOPs for both hazardous and non-hazardous waste streams.



Description of Risk Potential Business Impact		Present Risk Management	Opportunities
Potential risks from single- source water dependency- Jajpur on the Brahmani River and infrastructure limitations may affect water availability and operational continuity	could lead to production downtime, increased emergency sourcing costs, and reputational concerns related to water		Explore alternate/backup water sources; integrate predictive maintenance tools to reduce infrastructure failures.
Potential risks from incomplete water balance and inadequate metering may affect the accuracy of water use tracking and efficiency planning.	Limited visibility into actual water consumption across domestic, horticulture, and recycling systems may lead to inefficiencies, missed conservation opportunities, and challenges in meeting sustainability targets	Site-level water balance in place for major process units; water meters installed at key intake points	Develop a comprehensive, scientifi water balance including domestic, horticulture, and rainwater use; insta meters at cooling towers STP, and recycling points; recycle treated sewage for non-potable uses
Potential risks from gaps in regulatory alignment and lack of catchment-level interventions may affect compliance and community water resilience	ntial risks from gaps in latory alignment and of catchment-level ventions may affect pliance and community  Regulatory scrutiny; lack of catchment action may impact local water availability and stakeholder trust.		Install CETP or equivaler systems where feasible; segregate effluent and stormwater flows; initiate catchment-level water stewardship and community access programs
Potential risks from climate variability, including flooding and drought, may affect water availability and infrastructure resilience – historical flooding at Hisar	Operational disruptions, property damage, supply chain interruptions.	Climate risk scenario analysis included in water risk assessments; ongoing engagement with water authorities.	Develop climate-resilien infrastructure; enhance floodwater harvesting capacity.



Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from increasing energy demand and costs, emissions from conventional energy sources	Rising energy costs could increase operational expenses, regulatory compliance risk leading to potential financial liabilities, or disruptions due to energy shortages	At the Jajpur plant, a pioneering solar energy project with a total capacity 30 MWp - including 7.3 MWp floating solar and 23.02 MWp rooftop solar was successfully commissioned in partnership with A B Energia	Advanced Waste Heat Recovery: JSL is exploring state-of- the-art systems, such as steam generation boilers and Organic Rankine Cycle (ORC) technology, to capture high-temperature waste heat from its furnace exhausts.  This captured thermal energy is then convertee into steam or electricity, reducing the company's reliance on grid power and maximising the energy value from its primary processes
Potential risks from high energy demand and fossil fuel-based operations may contribute to elevated emissions and resource dependency	Increased operational costs, exposure to carbon pricing, and reputational risks due to high emissions intensity.	33 ENCON projetcs implemented in FY 2024- 25 leading to 33,795 carbon abatement- Electrical saving-17192 Mwh, Fuel Savings of 11,933 MT (Across Coal, LPG & Propane)- nearly 85038 Million Kcal thermal energy	Expand ENCON initiatives across more systems; integrate ORC-based waste heat recovery; enhance process control and insulation.
Potential risks from limited on-site renewable energy generation and grid dependency may affect Scope 2 emissions and energy resilience	Vulnerability to energy price fluctuations and regulatory pressure; reduced alignment with decarbonization goals.	100 MW renewable power agreement with ReNew Power; 28 MWp rooftop solar commissioned.	Scale rooftop solar capacity; explore BESS integration; evaluate additional PPAs and onsite generation options.

Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from energy-intensive ferroalloy production and combustion processes may lead to avoidable emissions	Higher GHG emissions and reduced process efficiency; challenges in meeting future emission targets.	Chrome Pelletisation Plant commissioned to replace briquetting; combustion enhancements in blast furnace.	Optimize pelletisation process; expand oxygen enrichment; explore biofuel substitution and CCUS for hard-to-abate emissions.

Key Initiatives: At the Jajpur plant, a pioneering solar energy project with a total capacity 30 MWp - including 7.3 MWp floating solar and 23.02 MWp rooftop solar was successfully commissioned in partnership with A B Energia.







Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential gaps in documentation and classification of waste streams across operations may affect traceability and alignment with regulatory frameworks.	Limited visibility into waste flows may lead to inefficiencies in handling, challenges in reporting, and missed opportunities for recovery and reuse.	Waste types identified across units; aspect-impact documentation reviewed; hazardous waste categories referenced from applicable rules.	Develop a comprehensive waste inventory with disposal methods; align nomenclature with regulatory schedules; maintain a plant-specific waste risk register.
Potential risks from regulatory coverage and vendor alignment may affect compliance with hazardous and biomedical waste management requirements.	Gaps in authorization scope and vendor capabilities may result in audit observations and reputational exposure.	Hazardous waste authorization obtained; biomedical waste authorization in place for treatment; valid CTO available.	Update hazardous waste authorization to reflect all waste types; engage with OSPCB to review biomedical waste generation scope; verify vendor credentials and ensure alignment with approved handling capacities.

#### Key Initiatives:

- 1. Metal Recovery and Circularity at Jajpur
- JSL operates an advanced facility at its Jajpur site to recover valuable metals from ferrochrome and SMS slag.
- In FY25, 29,144.53 MT of metal were recovered and reused in steelmaking, while 3,08,336.9 MT of slag were repurposed.
- This supports a closed-loop manufacturing system, reduces reliance on virgin raw materials, and minimizes environmental impact.

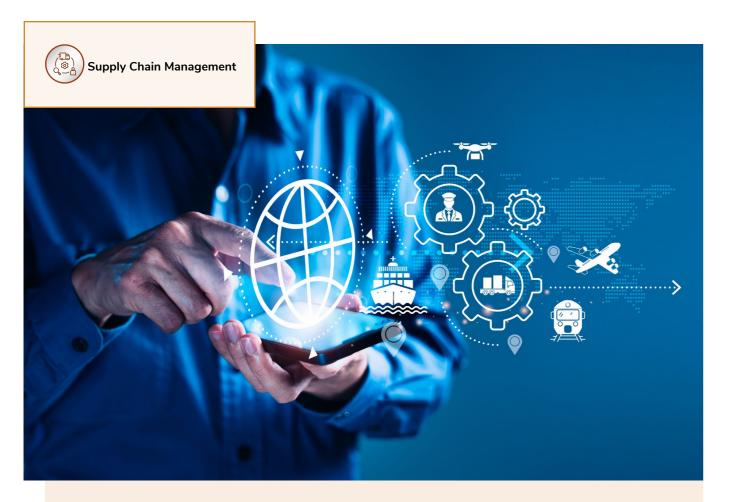
- 2. Extended Producer Responsibility (EPR)
  Compliance
- The Jajpur unit is registered with CPCB and adheres to Plastic Waste Management Rules, 2016 as a Brand Owner and Importer.
- All plastic waste is responsibly recycled through authorized CPCB-registered recyclers



Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from operational activities may affect freshwater and terrestrial biodiversity, despite no overlap with protected areas or Key Biodiversity Areas with Jajpur Plant. Indirect dependencies on ecosystem services for climate regulation and natural hazard protection remain relevant	Reputational risks from perceived environmental impacts; potential regulatory challenges including legal liabilities and restrictions on future expansion; increased costs for conservation and offsets	Biodiversity Risk Assessments (BRA) conducted for Jajpur facility with comprehensive site- specific evaluations completed.  Site-specific Biodiversity Management Plans developed using the AR3T framework (Avoid, Reduce, Restore, Regenerate, Transform) to guide responsible land use practices.  Reforestation and ecological restoration initiatives implemented across operational areas and buffer zones.  No Net Loss (NNL) commitment  Biodiversity conservation efforts with mitigation strategies for habitat preservation.	Implement biodiversity management plans across a operations and expansions; conduct No Net Loss studies apply mitigation hierarchy consistently; strengthen conservation initiatives and community engagement; develop and monitor biodiversity performance indicators

biodiversity enhancement.





Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from supply chain disruptions, including natural disasters, geopolitical tensions, and limited domestic reserves of critical nputs, may affect raw material availability and ogistics continuity	Interruptions in material flow and infrastructure could impact production schedules, increase costs, and reduce operational efficiency. Exposure to global market fluctuations may further lead to increased emissions from emergency sourcing, and potential reliance on ecologically sensitive regions	Diversified sourcing from domestic and nearby regions; strategic partnerships to reduce dependency on high-risk geographies	Strengthen local sourcing strategies; build buffer inventories for critical inputs; explore alternative materials and recycling options; enhance logistics resilience through modal shifts and digital tracking.
Potential risks from supplier practices and logistics emissions may contribute to environmental degradation, biodiversity loss, and increased exposure to ESG-related scrutiny	Unsustainable supplier operations and high-emission logistics may affect regulatory compliance, stakeholder trust, and alignment with climate and nature goals	ESG screening integrated into supplier onboarding; digital tools deployed for traceability and data quality; supplier code of conduct enforced	Expand ESG due diligence and nature-related risk assessments; collaborate with suppliers on biodiversit protection and emissions reduction; enhance transparency through digital platforms and nature- positive procurement policies



In FY 2024–25, JSL Jajpur undertook extensive green cover enhancement within its operational boundaries, planting approximately 79,000 saplings across various zones. This included 31,470 saplings over 19.37 hectares, 42,011 ground cover plants across 3 hectares, and 5,519 shrubs along 5,000 meters. The plantation featured native, fast-growing, and low-maintenance species such as Arjun, Malabar Neem, Gulmohar, Philofom, Acacia, and Sesame, selected for their high survivability and ecological value.

Beyond operational boundaries, JSL extended its plantation efforts with 21,000 saplings planted over 13.12 hectares in Bandha Gaon and 19,000 saplings over 11.1 hectares in Ambarsar Gaon. These initiatives support landscape-level restoration and community engagement in ecologically sensitive zones.

JSL continues to maintain past plantations in community areas, ensuring long-term ecological impact. These include

Plantation Site, 27,000 sq. ft. were planted with over 350 plant species including Mango, Deodar, Jackfruit, Pista Badam, and Guava. The Herbal Garden at Kumbhiragadi spans 1,200 sq. ft. and features 90 medicinal plant species such as Vasanga, Tulsi, Brahmi, Amorpoi, Juani, and Gudmari. The Temple Plantation Site at Solei covers 2,100 sq. ft. and includes 45 diverse plant species. A Miyawaki Forest Pilot was established on 2 acres with 4,347 fast-growing native saplings, which is a high-density afforestation method that accelerates ecosystem restoration.

20,000 saplings across 18 acres in Gosala, 20,000 saplings

over 22 acres in Ambarsar, and 10,000 saplings across 10

acres in Telibahali, reinforcing its commitment to sustained

Additional voluntary plantation and restoration activities

were carried out at various sites. At Manatira Village



Miyawaki Forest - high-density afforestation pilot



Herbal Garden at Kumbhiragadi



Plantation activity at Solei



Plantation at Bandha Gaon





#### EVERGREEN AGROFORESTRY DEVELOPMENT

Under voluntary conservation efforts during FY 2023–25, JSL supported evergreen agroforestry across 50 acres of private (farmer-owned) land within a 10–15 km radius of JSL mines in Anala and Kanasa areas. This initiative promotes sustainable livelihoods for local communities while enhancing biodiversity and contributing to carbon sequestration.

By integrating native and economically valuable species into a long-term agroforestry model, JSL is fostering ecological resilience and community well-being beyond its operational boundaries.

The plantation includes 50,000 non-seasonal, fruit-bearing trees such as mango, jackfruit, guava, coconut, and neem, selected for their ecological and economic value.









#### COMMUNITY POND RESTORATION - SOLEI VILLAGE

As part of its "Swachhata Hi Seva" campaign, under the Stainless Swachhata Abhiyan, JSL undertook the cleaning and renovation of a community pond spanning 11,000 square feet in Solei Village, located near its Jajpur facility. This effort aimed to improve the freshwater ecosystem, enhance local biodiversity, and restore a vital water resource for the surrounding community.

The restoration work not only revitalized the pond's ecological function but also contributed to improved water availability and quality for local communities. This initiative reflects JSL's commitment to community-led conservation and its broader approach to integrating nature-positive actions into its operational landscape.

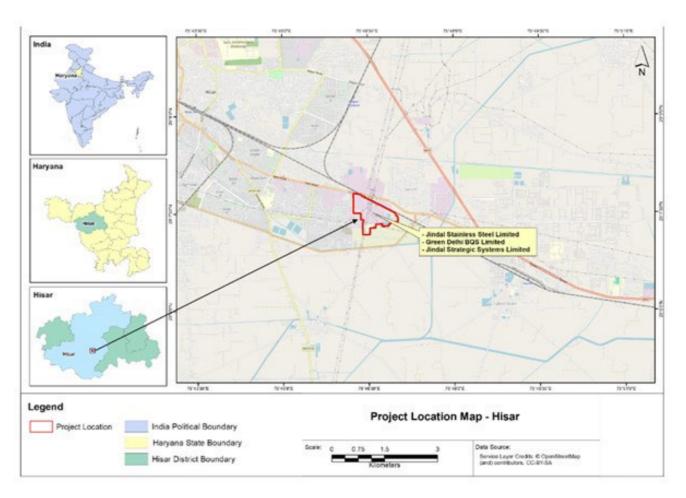


Community pond restoration, Solei

#### **HISAR**

The JSL Hisar Plant, established in 1975 in Haryana, is a major integrated stainless steel production facility with a capacity of 0.8 MTPA. It manufactures a wide range of products including slabs, blooms, coils, strips, and is the largest coin blank producer in India. Hisar has deployed India's first off-grid green hydrogen-based stainless steel unit, developed in partnership with Hygenco. The plant is

classified under TNFD Biome Guidance as part of Urban and Industrial Ecosystems (T7.4). The surrounding area is predominantly modified habitat, including built-up area, agriculture lands, open scrubland, and man-made water bodies with no natural habitats, no key biodiversity areas (KBAs) within a 50 km radius, and no habitat continuity with high biodiversity value areas.



Overview of risks across the 4 material topics identified for JSL Energy and Emissions, Circular Economy & Waste Management, Water & Wastewater Management and Biodiversity while other like Supply Chain management





Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from single-source water dependency- Balsamand Canal (Western Yamuna Canal) and infrastructure limitations may affect water availability and operational continuity	Supply disruptions could lead to production downtime, increased emergency sourcing costs, and reputational concerns related to water use	Closed-loop cooling systems implemented; Zero Liquid Discharge (ZLD) adopted; preventive maintenance for pipelines and pumps	Explore alternate/ backup water sources; integrate predictive maintenance tools to reduce infrastructure failures.
Potential risks from upstream water quality degradation due to industrial effluents and untreated wastewater including community- level sanitation gaps may impact treatment efficiency and compliance	Increased water treatment costs; compliance risks; potential operational halts during quality incidents; reputational damage; community conflict; stricter local regulations.	On-site treatment of cooling tower blowdown through skimming tanks, oil separation, and reverse osmosis; treated sewage reused for horticulture and dust suppression  CSR and WASH programmes in neighbouring communities; partnerships with NGOs to improve sanitation access	Invest in advanced filtration technologies; collaborate with upstream industries for joint watershed protection programmes Expand community-based water monitoring; launch joint water stewardship initiatives
Potential risks from climate variability, including flooding and drought, may affect water availability and infrastructure resilience – historical flooding at Hisar	Operational disruptions, property damage, supply chain interruptions.	Climate risk scenario analysis included in water risk assessments; ongoing engagement with water authorities.	Develop climate- resilient infrastructure; enhance floodwater harvesting capacity.
Potential risks from rising water costs – procurement costs INR 8.30/m³ to INR 20/m³; projected INR 21–47/m³ over next decade.	Higher production costs impacting competitiveness.	Internal Water Pricing (IWP) mechanism using Water Risk Monetiser to factor scarcity, quality, and competition; cost reflected in operational planning.	Pursue water substitution projects; accelerate 50% reduction in abstraction through process optimisation.



#### Energy and Emissions

The Company has set an ambitious target to achieve Net Zero emissions by 2050, intending to reduce emissions intensity by 50% from baseline FY 2022 levels. By aligning with the Science-Based Targets Initiative (SBTi), the Company is committing to clear, science-backed GHG reduction targets for both short-term and longterm objectives. Efforts to improve energy efficiency include reducing fossil fuel use, optimizing processes, and



Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from energy-intensive operations and legacy systems may contribute to elevated emissions and resource consumption	Increased operational costs, exposure to carbon pricing, and reputational risks due to high emissions intensity.	Biofuel substitution in Hot Rolling Mill; biochar trials; oxygen enrichment in blast furnace; deployment of IE3 motors and VFDs.	Scale up biofuel and bio-coal usage; expand motor upgrades; optimize combustion systems; integrate real-time energy analytics.
Potential risks from continued reliance on fossil-based grid electricity may affect long-term energy resilience and Scope 2 emissions	Vulnerability to energy price fluctuations and regulatory pressure; reduced alignment with decarbonization goals.	100 MW RTC renewable power agreement with Oyster Renewable; green hydrogen plant commissioned for annealing processes.	Expand green hydrogen use across more processes; explore on-site solar; evaluate BESS and nuclear options for long-term energy security.
Potential risks from suboptimal heat and energy utilization across systems may lead to avoidable emissions and inefficiencies	Missed opportunities for cost savings and emission reductions; reduced process efficiency.	Furnace optimization; thermal upgrades; motor replacements; ENCON projects implemented.	Extend ENCON projects to additional systems; deploy ORC-based waste heat recovery; enhance insulation and process controls.





The overarching goal is to achieve 'Zero-Waste-to-Landfill' certification from an accredited third party by 2030, demonstrating a commitment to sustainable resource management and environmental stewardship

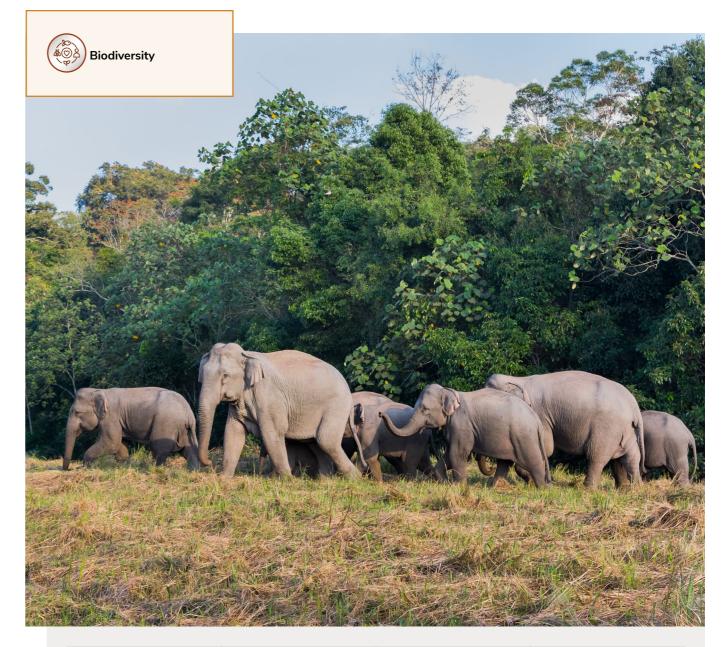


Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from handling, segregation, and storage of different waste streams could affect groundwater, soil quality, and local air conditions. Exposure of materials to rainfall may contribute to leaching and runoff	Possible implications for land capability, soil and water resources, and air quality	Gradual introduction of segregation practices, covered storage, containment flooring, dust suppression, and structured hazardous waste handling	Establish systematic segregation with dedicated hazardous/ non-hazardous zones; install impermeable flooring and covered storage; adopt dust suppression and emission control systems; build workforce awareness through training
Potential non-alignment with requirements on hazardous waste, air quality, and water management could create compliance considerations	May result in operational delays, reputational concerns, or additional costs for corrective actions	Alignment with national waste management rules, Water and Air Acts; progressive monitoring, maintenance, and reporting systems	Formalize compliance monitoring frameworks; strengthen alignment with IFC performance standards; institute periodic audits; introduce structured incident response protocols
Limited integration of monitoring and reporting systems may reduce visibility of waste volumes, emissions, and overall environmental performance.	Potential constraints on decision-making and timely response to risks	Development of record-keeping practices, emission inventories, and structured reporting	Deploy integrated data platforms for waste and emission tracking; adopt digital tools for real-time monitoring; enhance disclosure quality through systematic reporting and transparent record-keeping

#### Key Initiatives at Hisar Plant

- Transition to Bulk Acid Supply:

  To reduce plastic waste from acid
  delivery in drums, JSL has shifted to bulk
  procurement via 10–20 KL tankers. This
  change has eliminated single-use plastic
  drums for 20–25% of acid consumption,
  improving operational safety and
  supporting waste minimisation goals.
- Sustainable Coil Handling:
   Wooden pallets used for coil handling
   have been replaced with customfabricated Mild Steel (MS) supports. This
   reduces solid waste, enhances safety,
   and aligns with JSL's sustainability and
   continuous improvement objectives.



Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from operational activities may affect freshwater and terrestrial biodiversity, despite no overlap with protected areas or Key Biodiversity Areas. Indirect dependencies on ecosystem services for climate regulation and natural hazard protection remain relevant	Reputational risks from perceived environmental impacts; potential regulatory challenges including legal liabilities and restrictions on future expansion; increased costs for conservation and offsets	Biodiversity Risk Assessments (BRA) conducted for Hisar; site-specific Biodiversity Management Plans developed using the AR3T framework (Avoid, Reduce, Restore, Regenerate, Transform) and guide the company's efforts in responsible land use, reforestation, and ecological restoration.	Implement biodiversity management plans across all operations and expansions; apply mitigation hierarchy consistently; strengthen conservation initiatives and community engagement; develop and monitor biodiversity performance indicators





Description of Risk	Potential Business Impact	Present Risk Management	Opportunities
Potential risks from supply chain disruptions, including natural disasters, geopolitical tensions, and limited domestic reserves of critical inputs, may affect raw material availability and logistics continuity	Interruptions in material flow and infrastructure could impact production schedules, increase costs, and reduce operational efficiency. Exposure to global market fluctuations may further lead to increased emissions from emergency sourcing, and potential reliance on ecologically sensitive regions	Diversified sourcing from domestic and nearby regions; strategic partnerships to reduce dependency on high-risk geographies	Strengthen local sourcing strategies; build buffer inventories for critical inputs; explore alternative materials and recycling options; enhance logistics resilience through modal shifts and digital tracking.
Potential risks from supplier practices and logistics emissions may contribute to environmental degradation, biodiversity loss, and increased exposure to ESG-related scrutiny	Unsustainable supplier operations and high-emission logistics may affect regulatory compliance, stakeholder trust, and alignment with climate and nature goals	ESG screening integrated into supplier onboarding; digital tools deployed for traceability and data quality; supplier code of conduct enforced	Expand ESG due diligence and nature-related risk assessments; collaborate with suppliers on biodiversity protection and emissions reduction; enhance transparency through digital platforms and nature-positive procurement policies

# RESILIENCE OF THE STRATEGIES UNDER DIFFERENT SCENARIOS

Strategy

JSL's scenario analysis framework evaluates the resilience of our nature-positive steel production strategies against varying degrees of ecosystem degradation and market response coordination. Building on this year's enhanced LEAP assessments, the analysis incorporates location-specific insights from the WWF Biodiversity Risk Filter (BRF) and comprehensive physical climate risk assessments across our operational facilities.

The WWF BRF assessment reveals that JSL's manufacturing sites face elevated site-level physical risks, with Jajpur, Hisar, Vizianagaram, and Pathredi showing high exposure to overlapping climate hazards including water stress, extreme heat, and urban flooding. These findings inform our scenario modeling, particularly regarding short-term water security risks and mediumterm operational resilience requirements.





#### Scenario descriptions and strategic implications:

#### Scenario 1:

Ahead of the Game presents optimal conditions where proactive investments in nature-positive solutions enable market leadership. JSL's early adoption of advanced water recycling systems, including Zero Liquid Discharge (ZLD) technology implementation, positions the company to capture premium markets for sustainable steel products. The WWF BRF findings indicating moderate water stress at Hisar are effectively managed through current strategies and enhanced water efficiency systems. Biodiversity Management Plans (BMPs) implemented across Jajpur and Hisar facilities create competitive advantages through proactive regulatory compliance and stakeholder collaboration.

#### Scenario 2:

**Go Fast or Go Hom**e characterizes emergency response conditions where severe ecosystem degradation forces rapid scaling of nature-positive technologies. The high water stress and extreme heat risks identified through our physical climate risk assessment require accelerated deployment of emergency water sourcing and alternative treatment technologies. This scenario necessitates expedited implementation of circular economy initiatives to reduce dependency on disrupted natural systems and supply chains.

#### Scenario 3:

Sand in the Gears presents the most challenging environment, combining severe ecosystem degradation with fragmented policy responses. The elevated reputational risks identified through WWF BRF analysis become critical factors, requiring stakeholder engagement on regulatory compliance, community water access, and biodiversity conservation . Water scarcity impacts intensify without clear regulatory direction, while fragmented biodiversity compliance efforts increase operational costs across our multi-site operations.

#### Scenario 4:

Back of the List reflects delayed action on nature-related risks, where incremental improvements fail to address accelerating ecosystem degradation. JSL's current water management capabilities provide operational continuity, with further opportunities including circular economy leadership encompassing both water recycling systems and waste management for competitive positioning as sustainability becomes increasingly important for market access and regulatory compliance.

Our enhanced LEAP assessment reveals specific vulnerabilities that inform scenario planning across time horizons. The WWF BRF analysis shows that water-related risks are consistently high across JSL's operational sites, with particular exposure at manufacturing facilities where industrial water use intersects with regional water stress. Physical climate risk assessment confirms that nearly all assessed locations face high exposure to water stress, drought, and extreme heat, creating systemic vulnerability that requires comprehensive adaptation strategies.

**Short-term** risks center on operational continuity at water-intensive facilities. The assessment identifies Jajpur

as facing multiple overlapping high-risk hazards including urban flooding and cyclone risks, while Hisar experiences elevated water stress requiring enhanced efficiency measures. JSL's implementation of Effluent Treatment Plants (ETP) and Reverse Osmosis (RO) systems provides foundational resilience, with ongoing exploration of ZLD technologies addressing future scarcity scenarios.

Medium-term risks focus on regulatory adaptation and supply chain resilience. The BRF assessment reveals elevated reputational risks across multiple facilities, driven by environmental compliance expectations and community perceptions. JSL's proactive BMP implementation and commitment to 100% supplier ESG assessment create strategic advantages in managing these transition risks.

Long-term opportunities emerge from JSL's circular economy initiatives and ecosystem service investments. The company's focus on maximizing scrap steel utilization reduces exposure to virgin material volatility while creating opportunities in emerging carbon and biodiversity markets. Approximately 89,000 saplings planted across operational sites and surrounding areas demonstrate tangible commitment to habitat restoration that supports progress towards No Net Loss biodiversity targets.



# TNFD Scenario Analysis for JSL

Scenario	Ecosystem Degradation	Market Alignment	Business Model Impact	Water Security Response	Biodiversity Management	Circular Economy Progress	Financial Impact Assessment
S1: Ahead of the Game	Moderate	High	Nature-positive steel leadership; premium market capture through sustainable differentiation	Moderate water stress managed through enhanced ETP/RO systems and ZLD technology; proactive watershed partnerships	BMP implementation creates competitive advantages; proactive offset programs generate revenue opportunities	Strong circular economy initiatives maximize scrap utilization; long-term resource efficiency gains	Increased revenues from premium products; operational cost stabilization through efficiency investments
S2: Go Fast or Go Home	Severe	High	Rapid scaling of nature-positive technologies; emergency response capabilities deployment	Severe water scarcity requires accelerated alternative sourcing and treatment capacity; emergency infrastructure investments	Stricter regulations necessitate expedited restoration programs; enhanced monitoring and compliance systems	Accelerated circular adoption reduces ecosystem dependency; emergency scrap processing expansion	High short-term capital requirements offset by long-term competitive positioning; margins compressed initially
S3: Sand in the Gears	Severe	Low	Fragmented responses limit strategic coordination; defensive risk mitigation focus	Severe water scarcity with limited regulatory support; fragmented compliance requirements increase costs	Biodiversity compliance hampered by inconsistent policy frameworks; elevated reputational risk management	Delayed circular economy progress due to fragmented market signals; limited sustainability returns	Skyrocketing adaptation costs; fragmented compliance efforts increase operational expenses
S4: Back of the List	Moderate	Low	Incremental improvements maintain basic compliance; missed sustainability differentiation	Moderate water stress managed through basic efficiency measures; limited advanced technology adoption	Minimal biodiversity focus beyond compliance requirements; missed offset market opportunities	Slow circular economy adoption; incremental waste reduction with limited competitive advanta	





#### Strategic measures in response to the Scenarios

JSL's strategic response emphasizes adaptive capacity built through risk management and stakeholder collaboration. The BMP implementation across all manufacturing sites creates institutional resilience that scales effectively across scenario conditions. Enhanced monitoring systems enable early detection of changing environmental conditions and rapid deployment of appropriate responses.

Technology investments focus on solutions providing benefits across multiple scenarios. Advanced water treatment systems address immediate operational risks while supporting long-term sustainability objectives. Digital monitoring platforms integrate with existing risk management systems to provide real-time insights into environmental conditions and operational performance.

Stakeholder engagement and collaborative risk management reduce scenario-specific exposure through shared mitigation efforts. JSL's community partnerships and supplier collaboration create distributed resilience networks that strengthen operational stability while enhancing social license to operate.

The scenario analysis confirms that JSL's nature-positive strategies generate competitive advantages while providing essential resilience against severe disruption scenarios. Our proactive approach to water management, biodiversity conservation, and circular economy transition creates strategic optionality regardless of specific environmental and market developments.



# RISK AND IMPACT MANAGEMENT

Strategy

At Jindal Stainless, risk management is a strategic enabler embedded across its operations. In an environment shaped by climate change, regulatory evolution, technological disruption, and supply chain volatility, the company proactively identifies and addresses risks that could impact long-term value creation. JSL's approach is firmly aligned with its ESG commitments and is guided by continuous stakeholder engagement and periodic materiality assessments. The company fosters a culture of risk awareness across all levels to ensure agile, informed decision-making and sustained stakeholder confidence.

The company has a well-defined Risk Management Policy providing for a structured framework for risk identification, assessment, mitigation, and timely reporting to safeguard stakeholder interests. The Board of Directors oversees

Jindal Stainless's risk management framework through the Risk Management Committee (RMC), established in accordance with the company's Risk Management Policy. The RMC holds primary responsibility for overseeing the organisation's exposure to strategic, operational, regulatory, and sustainability-related risks. It conducts periodic reviews of key risks and mitigation strategies and submits its findings and recommendations to the Board. This structured reporting ensures that the Board maintains effective oversight and that risk considerations remain aligned with the company's long-term strategy and ESG objectives. JSL's risk governance approach ensures that risk considerations are not siloed but integrated with corporate strategy, investment planning, and business transformation efforts such as the transition to low-carbon operations and green supply chain practices.





Risk
Management
Committee-RMC
(Board level)

MD, CEO & CXO Meeting

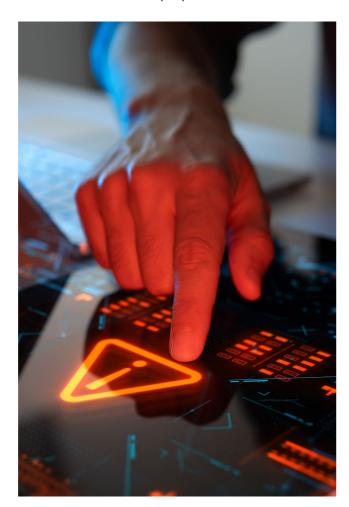
Internal Audit Governance & Risk Management - IAGRM Team

Risk Owners (Function Heads) & Champions (SPOC) from Units, Location & Corporate Functions

#### **Board Oversight Risk Management Organisation**

The company has instituted a multi-tiered risk management governance framework that ensures oversight, accountability, and transparency across all levels of the organisation, from operational execution to boardlevel supervision. At the operational level, Business Unit Heads play a pivotal role as 'Risk Owners' in managing and mitigating risks within their respective domains, responsible for identifying potential risks, implementing control measures, and ensuring compliance with internal standards and external regulations. Their proximity to day-to-day operations enables timely responses to emerging risks, particularly in areas such as environmental compliance, energy security, health and safety, people concern and raw material volatility. Each business or functional unit is supported by a 'Risk Champion,' who is nominated by the risk owners to help maintain and enhance the risk management culture. The Risk Champion is also responsible for reporting to the risk owners and the Internal Audit, Governance & Risk Management function (IAGRM) on risk trends, mitigation plans, issues, and any challenges that may arise. Providing oversight and support to these business unit heads (operational leaders) is the Head for Internal Audit, Governance, and Risk Management. The role includes the development of risk management frameworks, monitoring adherence to policies, developing risk culture frameworks, and providing regular updates on risk management to the RMC and MD/ CEO. They play a critical role in strengthening governance by enabling structured risk assessments and strengthening a risk-aware culture. The IAGRM team is responsible for evaluating the design and operational effectiveness

of internal controls and risk mitigation strategies. This team conducts periodic audits and assessments, offering objective insights into the company's risk posture and ensuring that governance mechanisms are functioning as intended. As a result, the company's deep-rooted risk identification and management culture empowers every concerned individual, from the shop floor to the Board, to identify, assess, and manage risks along with conducting proactive awareness sessions to build risk awareness among the concerned employees. At the top of the governance structure, the RMC plays a pivotal role in overseeing the company's enterprise-wide risk management framework. While the RMC does not directly integrate individual risks into the framework, it provides strategic oversight by reviewing the effectiveness of risk identification, assessment, and mitigation processes across the organisation. The Committee reports periodically to the Board, ensuring that risk governance remains aligned with Jindal Stainless' long-term objectives and ESG commitments. This structured oversight reinforces transparency, accountability, and informed decision-making across all levels of the company.



### **Risk Management Strategy and Process**

Strategy



Jindal Stainless has embedded risk management as a strategic enabler across its operations, ensuring resilience and agility in a rapidly evolving environment shaped by climate change, regulatory shifts, technological advancements, and supply chain disruptions. The company's approach is aligned with its ESG commitments and is supported by continuous stakeholder engagement and periodic materiality assessments. Risk awareness is cultivated across all levels of the organisation to promote informed decision-making and maintain stakeholder trust.

The company operates under a well-defined Risk Management Policy that outlines a structured framework for identifying, assessing, mitigating, and reporting risks. Oversight is provided by the Board of Directors through the Risk Management Committee (RMC), which reviews strategic, operational, regulatory, and sustainability-related risks and ensures alignment with long-term goals. Risk governance is integrated with corporate strategy, investment planning, and transformation initiatives such as low-carbon operations and green supply chains.

JSL's governance framework is multi-tiered, with Business Unit Heads acting as Risk Owners responsible for managing risks within their domains. They are supported by Risk Champions who report to both the Risk Owners and the Internal Audit, Governance & Risk Management (IAGRM) function. The IAGRM team plays a central role in developing frameworks, monitoring compliance, and conducting audits to evaluate the effectiveness of internal controls and mitigation strategies. This structure ensures that risk management is not siloed but embedded throughout the organisation.

The enterprise risk management (ERM) framework at JSL is based on the globally recognised COSO model, which integrates governance, strategy, performance, review, and communication. Risk appetite and tolerance are defined and reviewed periodically, with a 5x5 matrix used to assess the likelihood and impact of risks. This enables systematic evaluation and prioritisation of risk exposure. Reviews are conducted at least twice a year to ensure compliance and effectiveness.







JSL's ERM framework is built on globally recognised best practices, particularly the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework, and is tailored to meet JSL's specific business needs. The COSO framework provides a structured and integrated approach to risk management, emphasizing the alignment of risk with strategy, performance, and governance. It comprises five interrelated components — Governance and Culture, Strategy and Objective-Setting, Performance, Review and Revision, and Information, Communication, and Reporting — which collectively support effective risk identification, assessment, and response. This foundation enables us to embed risk considerations into strategic planning and operational execution.



# Risk Appetite and Risk Tolerance

Jindal Stainless defines its risk appetite as the level of risk it is willing to accept in pursuit of its strategic and operational objectives. This appetite is determined through a structured process involving senior leadership and board-level oversight. The company's risk tolerance — the acceptable variation around its risk appetite — is established for each risk category and is reviewed periodically.

likelihood



To ensure a comprehensive approach consistent with best practices, Jindal Stainless determines risk ratings by mapping the likelihood of an event against its potential impact. JSL has created a matrix structured on a 5x5 scale, with impact levels ranging from 'Insignificant' to 'Significant' and likelihood levels from 'Remote' to 'Almost Certain.' Each cell reflects a numerical risk score and is color-coded to indicate the severity — ranging from Low to Severe — enabling a clear and systematic evaluation of risk exposure. JSL reviews its risk exposure at least twice a year to ensure compliance with statutory requirements and effective management.

	Risk Likelihood					
Risk Impact	Remote	Unlikely	Possible	Likely	Almost Certain	
	1	2	3	4	5	
Significant	5	10	15	20	25	
5	Minor	Moderate	Major	Significant	Significant	
Major	4	8	12	16	20	
4	Minor	Moderate	Major	Major	Significant	
Moderate	3	6	9	12	15	
3	Insignificant	Minor	Moderate	Major	Major	
Minor	2	4	6	8	10	
2	Insignificant	Minor	Minor	Moderate	Moderate	
Insignificant	1	2	3	4	5	
1	Insignificant	Insignificant	Insignificant	Minor	Minor	



### Climate Risk Assessment Overview and Linkage to IFRS S2 Report

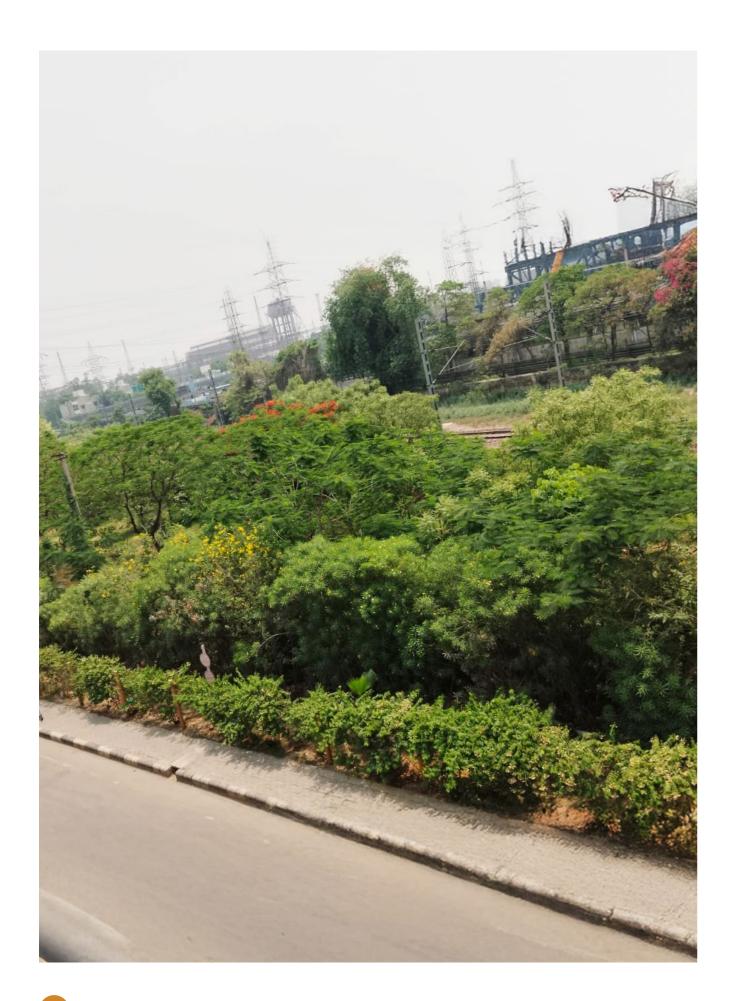
Jindal Stainless has conducted its first formal climate risk assessment as part of its broader sustainability strategy, marking a significant step in integrating climate-related data into its enterprise-wide risk management framework. This assessment covers both physical risks—such as water stress, extreme heat, cyclones, and flooding—and transition risks arising from regulatory changes, carbon pricing, and evolving market expectations. The company used internationally recognised scenarios from the Network for Greening the Financial System (NGFS), including 'Current Policies' and 'Net Zero 2050', to evaluate potential impacts through scenario analysis.

This scenario-based approach aligns with the requirements of the IFRS S2 sustainability disclosure standard and is also mapped to the Task Force on Climate-related Financial Disclosures (TCFD) framework, which underpins IFRS S2.

The assessment focused on JSL's manufacturing operations in Hisar and Jajpur, helping identify vulnerabilities and develop mitigation strategies. Climate risks have been formally integrated into the company's Enterprise Risk Management system, with oversight embedded at both the Board and senior management levels to ensure compliance with IFRS S2's governance and strategy expectations.

Climate-related topics are placed on the Board's agenda at least annually, or more frequently if needed, to ensure strategic alignment and effective oversight. By embedding climate risk into strategic planning and operational resilience, Jindal Stainless has taken a proactive approach to sustainability reporting. This enhances transparency, supports long-term business continuity, and strengthens stakeholder confidence in the face of climate change.





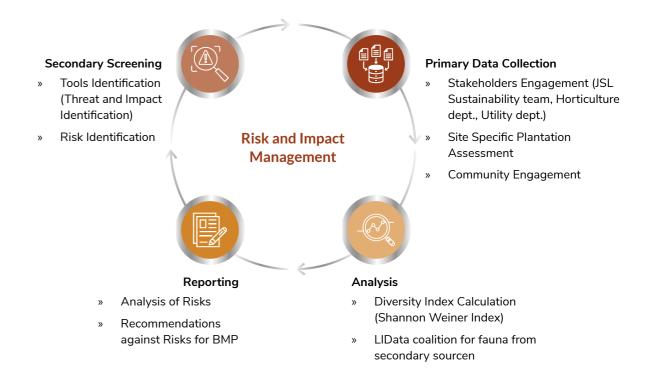


Figure 6 Biodiversity Risk Assessment Process

# Processes for identifying, assessing and prioritising nature- related dependencies, impacts, risks and opportunities in direct operations

Jindal Stainless has established a robust process for identifying, assessing, and prioritizing nature-related risks and opportunities. Through a combination of site-specific assessments, materiality analyses, and multi-criteria risk evaluation, JSL ensures that nature-related dependencies are integrated into its overall risk management and strategic planning. Improvements in data quality, real-time monitoring, and stakeholder engagement further support JSL's ability to respond effectively to emerging nature-related risks and opportunities.

LOCAL NATURE VULNERABILITY INDICATOR	TOOLS
Dependencies and Impacts	ENCORE
2 Species Threat Abatement & Restoration	BAT
Biodiversity Risk Levels & 3 Location Specific Risk Assessments	Biodiversity Risk Filter
<ul><li>Tree Cover Loss</li><li>Key Biodiversity Areas</li></ul>	GLOBAL FOREST WATCH
	Dependencies and Impacts      Species Threat Abatement & Restoration      Biodiversity Risk Levels & 3 Location Specific Risk Assessments      Tree Cover Loss



# Identification of Nature-related Dependencies, Impacts, Risks, and Opportunities

Jindal Stainless uses a structured approach to identify both existing and emerging nature- related dependencies and risks that may affect its operations. This process includes:

#### Materiality Assessment:

- » JSL applies TNFD's materiality definitions to assess the financial and operational significance of nature-related risks and opportunities. Nature-related issues are considered material if they have a significant impact on JSL's performance, financial position, or value chain operations. This includes material risks like water scarcity, biodiversity loss, and ecosystem degradation.
- » Location-Specific Assessments: Jindal Stainless assesses site-specific dependencies and risks, especially in key operational areas such as Jajpur, Odisha, where water scarcity and effluent discharge have material impacts on local ecosystems. JSL also uses local and sub-national data to understand the nuanced nature-related impacts and risks across different regions.
- » Timescale Consideration: JSL evaluates short-term, medium-term, and long-term impacts across a horizon of 1-10 years. This includes immediate risks, such as water shortages affecting current operations, and longer-term issues, like the potential impacts of climate change on ecosystem services.
- Stainless incorporates ecological thresholds into its risk assessments, identifying potential tipping points, such as when water extraction may lead to irreversible damage to local water tables, or when biodiversity loss could threaten local ecosystem integrity. This ensures JSL can identify when nature-related risks might escalate quickly.
- » Frequency of Assessment: Jindal Stainless Limited (JSL) conducts annual assessments of nature-related dependencies, impacts, and risks as part of its comprehensive risk management framework. The Risk Management Committee, which includes independent board members and executive directors, regularly reviews key risks and evaluates the effectiveness of mitigation strategies. Emerging risks are reviewed quarterly, allowing JSL to make timely adjustments in response to changing regulatory, environmental, or social conditions. Additionally, senior management conducts periodic reviews to assess the effectiveness of these strategies. These findings are then discussed at board meetings, ensuring that risk management efforts align with the company's strategic objectives.
- » Policy Changes and Regulatory Requirements: Jindal Stainless continuously monitors policy changes related to climate change and biodiversity conservation.

For example, potential restrictions on water use or new land use regulations are factored into JSL's risk assessments. Emerging global policies, such as the Global Biodiversity Framework (GBF) and regional water usage policies, are integrated into decisionmaking.

# Assessment of Nature-related Risks and Opportunities

Jindal Stainless uses a multi-criteria risk assessment process to assess the magnitude of nature-related risks and opportunities:

- » Magnitude of Effects: JSL evaluates the size, scope, and scale of nature-related risks by estimating how a particular risk (e.g., water scarcity) will impact operational performance, including production capacity, resource availability, and supply chain continuity.
- Likelihood and Potential Effects: Jindal Stainless considers the likelihood of a nature-related risk materializing based on historical data, and current environmental trends.

# Prioritization of Nature-related Risks and Opportunities (Overall)

Risk prioritization is performed by integrating outputs from secondary tools like ENCORE, Global Forest Watch, IBAT, and WWF Risk Filter. These tools provide data on dependencies, forest cover, biodiversity threats, and site-specific risks, which are then used to assess and rank risks and opportunities based on their potential impact and significance.





#### Processes for identifying, assessing and prioritising nature- related dependencies, impacts, risks and opportunities in Value Chain

Risk Terminology and Classification Frameworks- Jindal Stainless defines risks in accordance with the TNFD risk framework, categorizing nature-related risks as physical risks (e.g., water scarcity, habitat degradation), transition risks (e.g., regulatory changes, consumer preferences), and reputational risks (e.g., stakeholder concerns about environmental degradation). JSL uses the TNFD's LEAP framework (Locate, Evaluate, Assess, Prepare) to classify and manage nature-related risks. Risks identified through the WWF Biodiversity Risk Filter (BRF) are evaluated based on their scores, which reflect the potential biodiversity impacts and ecosystem sensitivities. Cross-functional teams responsible for monitoring and responding to priority risks.

Scope and Constituent Elements: Jindal Stainless defines its upstream value chain as comprising all stages of raw material extraction, procurement, and logistics before materials enter its manufacturing facilities. This includes the sourcing of scrap, chrome ore, bauxite, fluxes, lime, dolomite, and other essential inputs, as well as transport logistics. The downstream value chain encompasses the distribution, usage, and post-consumption recycling or disposal of stainless steel products. This includes products such as slabs, plates, coils, coin blanks, and items from the Special Products Division, like razor blades, extending to key customers, including Original Equipment Manufacturers (OEMs), recycling centers, and waste management systems.

# Assessment of Dependencies, Impacts, Risks, and Opportunities in the Value Chain(s)

Materiality Definition: Nature-related dependencies, impacts, and risks in the value chain are deemed material if they have a significant impact on Operational efficiency (e.g., disruption of raw material supply), Compliance costs (e.g., regulations on water usage in upstream locations) or Reputational damage (e.g., associations with biodiversity loss in high-risk areas).

#### Data Quality, Traceability, and Locationspecificity

JSL conducted the secondary assessments of environmental impacts using the secondary tools, focusing on key areas such as mining locations in biodiversity hotspots and regions with high water stress. The company is currently in the process of developing a mechanism for primary data collection and direct engagement with upstream suppliers and downstream partners. This mechanism aims to gather detailed information from mining companies and transport providers, including data on resource use, water impacts, and emissions.

## Assessing Risks and Opportunities in the Value Chain

Risk identification within the value chain begins with the use of the WWF Biodiversity Risk Filter (BRF) to evaluate both physical and reputational risks, such as environmental degradation and regulatory changes impacting raw material availability. We are now progressing towards primary, on-site risk identification to gain a more nuanced understanding and address these risks directly.



### Prioritization of Risks and Opportunities in the Value Chain

Jindal Stainless emphasizes the need to prioritize naturerelated risks across its value chain, with a particular focus on upstream activities. Risks such as biodiversity loss and water scarcity in upstream operations are considered more critical due to their direct impact on the availability of raw materials and the potential for stricter regulatory compliance. This prioritization is essential to maintaining supply chain stability and ensuring uninterrupted operations. JSL adopts a structured framework to classify and address both physical and transition risks, ensuring that its value chain partners align with JSL's commitment to environmental standards and sustainability objectives. By doing so, JSL effectively balances the challenges and opportunities within its entire value chain. JSL follows TNFD's risk classification framework, defining physical risks and transition risks in both its upstream and downstream value chains.



# Processes for identifying, assessing and prioritising nature- related dependencies, impacts, risks and opportunities in Value Chain

JSL has prepared Biodiversity Risk Assessments (BRA) for every plant as vell as service and sales centers. JSL uses secondary screening tools like ENCORE, IBAT, and WWF's Biodiversity Risk Filter, and Global Forest Watch to assess the biodiversity risks related to its operations. On-site surveys are also conducted, engaging with local communities to validate these risks. JSL has also prepared Biodiversity Management Plan (BMP) for each production facility including operational areas, green belt zones, infrastructure, and adjacent natural habitats. The BMP also addresses impacts on surrounding natural habitats (figure 7) and community areas near the plant, integrating these factors into broader risk management strategies. JSL implements several risk management tools to evaluate its overall risk profile, particularly in managing biodiversity, water, and climate-related risks. The BMP follows a risk mitigation hierarchy for addressing biodiversity impacts, ranging from avoidance, minimization, rehabilitation/ restoration, to offsets. These measures are applied to tackle issues like habitat loss, pollution, and pressure on natural resources. By integrating avoidance, minimization, rehabilitation/restoration, and offset measures, JSL Hisar can enhance local ecological conditions and contribute to broader environmental sustainability goals.



#### JSL's Biodiversity Mitigation Actions Framework

JSL applies a systematic mitigation hierarchy aligned with global best practices to reduce biodiversity impacts and dependencies. This structured approach ensures that JSL prioritizes prevention, followed by restoration, and transformation where needed. The table below outlines JSL's mitigation actions across the hierarchy:

#### Mitigation Hierarchy and JSL's Actions

Mitigation Level	Description	JSL's Implementation
1. Avoid	Measures which prevent impact or dependency from happening	Site selection to avoid protected areas and Key Biodiversity Areas
	in the first place; eliminate the impact entirely	Pre-project biodiversity screening using IBAT, WWF BRF, and Global Forest Watch
		Project planning to minimize disruption to critical habitats
		Zero overlap with World Heritage Sites, Ramsar sites, and IUCN Protected Areas
2. Reduce	Measures which improve existing processes' biophysical function	Implementation of advanced water recycling technologies to reduce freshwater dependency
	and productivity of an ecosystem or its components	Adoption of state-of-the-art Air Pollution Control Devices (APCDs)
		Circular economy practices including stainless steel recycling
		Energy efficiency improvements to reduce ecosystem stress
3. Restore &	Measures which initiate or accelerate the recovery of an ecosystem with respect to its health, integrity, and sustainability, with a focus on permanent changes in state	Reforestation with 89,000+ native saplings planted
Regenerate		Habitat restoration in degraded areas near operations
		Wetland and water body restoration initiatives
		Community-based conservation programs in Jajpur and Hisar
		No Net Loss (NNL) commitment for biodiversity
4. Transform	Measures which take actions	Investment of ₹700 crore in nature-biodiversity action
	contributing to system-wide change, notably to alter the	Transition to renewable energy (300 MW contracted)
	drivers of nature loss through	Green steel production initiatives
	technological, economic, institutional, and social factors	Supplier engagement on biodiversity through ESG screening
		Community engagement and capacity building programs
		Support for policy frameworks advancing nature conservation

The Biodiversity Management Plans (BMPs) for each production facility operationalize this hierarchy through site-specific interventions, detailed monitoring protocols, and annual performance reviews. JSL's commitment extends beyond compliance to create positive ecosystem outcomes wherever feasible.

JSL has developed **Monitoring and Evaluation (M&E)** framework which includes JSL's monitoring processes. JSL has outlined a **detailed monitoring plan matrix**, specifying indicators, target years, methods, and frequency of monitoring. This matrix ensures that all nature-related risks, particularly those tied to biodiversity, water use, and climate change—are regularly tracked.



### Integration of Nature-related Risks into Overall Risk Management

Nature-related risks and opportunities are formally integrated into Jindal Stainless's Enterprise Risk Management (ERM) system, which follows the globally recognized COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework. This integration ensures that biodiversity, water, climate, and ecosystem-related risks are evaluated with the same rigor as financial, operational, and reputational risks.

#### **Risk Management Committee Oversight**

The Risk Management Committee (RMC) provides strategic oversight of JSL's enterprise-wide risk management framework, including nature-related risks. The RMC reviews the effectiveness of risk identification, assessment, and mitigation processes across the organization and reports periodically to the Board. This structured reporting ensures that nature-related risk considerations remain aligned with the company's long-term strategy and ESG objectives.

Nature-related risks are reviewed at multiple governance levels:

- » Board and ESG Committee: Quarterly reviews of material nature-related risks, dependencies, and opportunities
- » Risk Management Committee: Periodic oversight of nature-related risk integration and mitigation effectiveness
- Management Level: Continuous monitoring by Business Unit Heads (Risk Owners) and Risk Champions at operational sites

#### **Structured Risk Assessment Process**

JSL applies a consistent 5x5 risk matrix to assess naturerelated risks alongside other enterprise risks, mapping likelihood against potential impact. Each risk is scored and color-coded (Low to Severe) to enable systematic evaluation. Nature-related risks are reviewed at least twice annually, with material risks tracked continuously through the Internal Audit, Governance & Risk Management (IAGRM) function.

The integration process includes:

- Risk Identification: Nature-related risks identified through BRA, BMP, and TNFD LEAP assessments are catalogued within the ERM system
- Materiality Assessment: Risks are assessed based on their potential impact on operational efficiency, compliance costs, and reputation, using the same criteria as other enterprise risks

- 3. **Risk Scoring:** Nature-related risks are scored using the company's standard likelihood-impact matrix, ensuring comparability with financial and operational risks
- 4. **Mitigation Planning:** Biodiversity Management Plans (BMPs) and M&E frameworks serve as the primary mitigation mechanisms, with progress tracked through the ERM system
- Monitoring and Reporting: Regular updates on nature-related risk exposure, mitigation progress, and emerging risks are provided to the RMC, ESG Committee, and Board

JSL's risk management process helps individuals from the shop floor to the Board to identify, assess, and manage nature-related risks. Risk Champions at each facility support Risk Owners in maintaining risk awareness and implementing mitigation measures. The Head of Internal Audit, Governance & Risk Management provides oversight, develops risk frameworks, and ensures that nature-related risks are monitored using the same standards as other risk categories.



#### **Progressive Integration Journey**

As an early adopter of the TNFD framework, JSL continues to deepen the integration of nature-related risks into its ERM processes. The company is advancing from initial risk identification (through secondary tools like ENCORE, WWF BRF, and IBAT) toward primary data collection and direct engagement with value chain partners. This progressive approach ensures that JSL's understanding of nature-related risks evolves alongside scientific knowledge and stakeholder expectations, while maintaining alignment with global standards for risk management and disclosure.

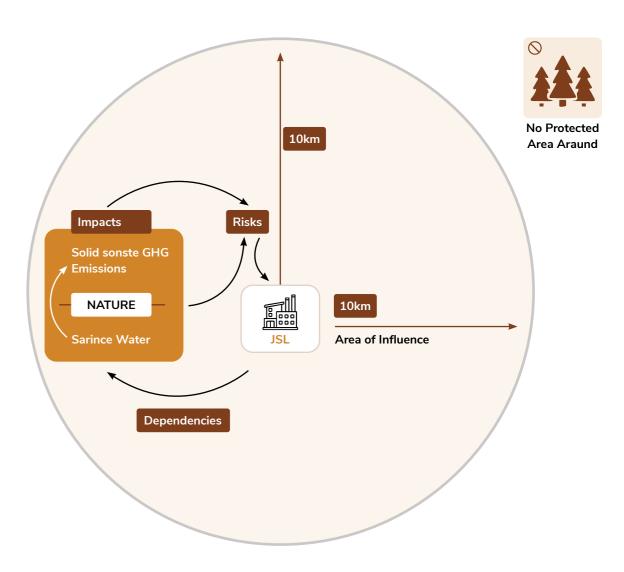


Figure 8 Schematic of JSL's area of influence (10km) and interaction with Nature

# **METRICS & TARGETS**

JSL has established measurable nature-related performance across our operations, with targets aligned to India's biodiversity priorities. Our approach focuses on quantifiable outcomes, strategic investments, and systematic expansion of conservation efforts.

89,000+
saplings planted across
operational sites

Strategic alignment with **6** priority National Biodiversity Targets

### ₹700 crore

committed to climatenature investments over five years

Active community engagement in **4** villages

### 100%

risk assessment coverage of direct operations (1,206.9 acres)



### Metrics for Assessing Nature-Related Risks and Opportunities



# **Current Performance Dashboard**

JSL tracks nature-related performance through specific, measurable indicators tied to our operational footprint and business strategy.



### **Operational Coverage**

Both manufacturing sites Jajpur and Hisar have completed Biodiversity Risk Assessments and Biodiversity Management Plans. This covers our entire 1,206.9-acre operational footprint and establishes baseline data for future performance tracking.



### **Risk Assessment Scope**

Direct operations including 2 manufacturing sites with full BRA/BMP completion and additional locations covering service centres and offices Value chain including 10 suppliers and 10 customers evaluated using WWF Biodiversity Risk Filter



### Financial Risk Management

Our ₹700 crore decarbonization investment addresses both climate and biodiversity risks through renewable energy (300 MW contracted), green hydrogen projects, and floating solar installations that provide water conservation co-benefits.

# Metrics for Dependencies and Impacts on Nature

Measuring our Footprint - JSL quantifies both our dependence on natural systems and our impact on local ecosystems through direct measurement and community engagement. Our 4.49 km² operational area has been mapped for ecosystem dependencies and biodiversity value. Key dependencies include freshwater resources, land use for operations, and ecosystem services like air quality regulation.



### **Conservation outcomes**

- » Jajpur: 38,084 saplings planted with species survival monitoring
- » Hisar: 15,913 saplings planted focusing on native species
- » Community feedback: Incorporated recommendations from 4 villages on plantation maintenance and species selection

Further, community consultations using Participatory Rural Appraisal methods have provided feedback on our conservation efforts and identified opportunities for improvement, including better plantation maintenance and focus on fast-growing native species.



### JSL ALINESS

### Strategic Targets and National Biodiversity Alignment

#### Our Conservation Strategy

JSL's targets focus on scalable conservation actions that support both business resilience and India's National Biodiversity Strategy and Action Plan (NBSAP) 2024-2030.



### **Priority National Biodiversity Target alignment**

Based on our operational footprint, industry sector characteristics, and current capabilities, JSL contributes meaningfully to six priority areas of India's 23 National Biodiversity Targets:

Conservation focus area	JSL actions & metrics	Target alignment
Ecosystem restoration	89,000+ saplings planted with post- plantation monitoring in place	NBT 2: Ecosystem     Restoration
	<ul> <li>Community partnership programs for engagement of local communities in related initiatives</li> </ul>	NBT 8: Species Conservation
Spatial planning integration	<ul> <li>100% site risk assessment followed by BMP implementation in the priority sites</li> <li>Buffer zone management</li> </ul>	<ul> <li>NBT 1: Spatial Planning</li> <li>NBT 3: Protected Areas</li> </ul>
Climate-nature solutions	<ul> <li>₹700 crore investment</li> <li>300 MW renewable energy</li> <li>Net-zero 2050 commitment</li> </ul>	<ul> <li>NBT 7: Climate Mitigation</li> <li>NBT 4: Sustainable Production</li> </ul>
Sustainable business integration	<ul> <li>TNFD early adoption with Board-level oversight over material issues including nature and biodiversity</li> <li>ESG integration of nature-related risks and opportunities</li> </ul>	<ul> <li>NBT 14: Mainstreaming</li> <li>NBT 15: Business Integration</li> </ul>
Community participation	<ul> <li>Local community engagement at the village level (4 locations) to consider community insights in the initiatives</li> <li>Traditional knowledge integration &amp; stakeholder feedback systems</li> </ul>	<ul> <li>NBT 21: Knowledge Access</li> <li>NBT 22: Equitable Participation</li> </ul>
Resource mobilization	<ul> <li>CSR biodiversity funding and green finance exploration</li> <li>Partnerships with technical and on-ground agencies for implementation</li> </ul>	<ul> <li>NBT 19: Financial Resources</li> <li>NBT 20: Technical Cooperation</li> </ul>

#### **Additional NBT Contributions**

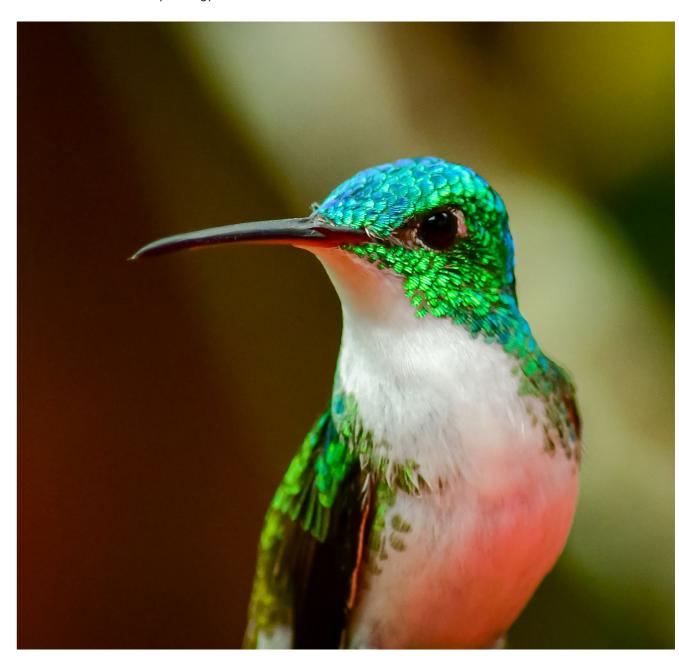
JSL contributes to the remaining 17 NBTs through industry collaboration, regulatory compliance, and participation in national frameworks. While these areas may have indirect business relevance, we support broader biodiversity objectives through sectoral initiatives and policy engagement.



JSL's nature-related targets reflect our commitment to measurable conservation impact while maintaining realistic implementation timelines. Our alignment with India's National Biodiversity Strategy demonstrates our understanding that corporate biodiversity responsibility requires both operational excellence and collaborative contribution to national conservation goals.

As an early TNFD adopter, we're building the foundation for enhanced biodiversity reporting while delivering tangible conservation outcomes today. combined with our sapling restoration programs and community engagement initiatives (in Jajpur and Hisar), positions JSL as a responsible corporate contributor to India's biodiversity objectives.

This approach ensures that our biodiversity commitments support business resilience, stakeholder expectations, and national conservation priorities while providing clear accountability through measurable targets and regular progress reporting.





Metric	Driver of			JSL Facility Data		Connection
No.	Nature Change	Indicator	Metric	Jajpur	Hisar	to GBF
			Refer to ISSB S2	Scope 1: 2754782 tCO2eq.	Scope 1: 240832 tCO2eq.	
	Climate Change	GHG emissions	Climate- Related Disclosure	Scope 2: 200293 tCO2eq.	Scope 2: 418898 tCO2eq.	Target 7
			Standard	Scope 3: 1846540 tCO2eq.	Scope 3: 1365779 tCO2eq.	
			Total spatial footprint (km²) (sum of):	3.49 km² (862.28 Acre)- Area Under Ownership	1.00 km² (248.15 Acre)	Target 1
C1.0	Land/ Freshwater/	Total Spatial	i. Total surface area controlled/ managed by the organisation (km²)	Plant area excluding JCL, JUSL is 3.49 km² (862.28 Acre)	Total Plant area is 1.00 km² (248.15 Acre)	(A.2 Extent of natural ecosystems), Target 2,
	Ocean- use Change	footprint	ii. Total disturbed area (km²)	0.22 Km2.	None	Target 5, Target 11 (B.1 Services provided by ecosystems)
			- Total rehabilitated/ restored area (km²)	0.84 Km2	15913 saplings planted inside the boundary	
			Extent of land/ freshwater/ocean ecosystem use change (km²) by:	0.22 Km2	None	Target 1  (A.2 Extent of natural ecosystems), Target 2,
		freshwater/	- Type of ecosystem	0.22 Km2 (Land Area of Projects)	Land	
C1.1	Land/ Freshwater/ Ocean- use Change		Land/ Freshwater/ Ocean- use Ocean- use Ocean- use		Jindal Stainless Limited (Steel Melting Shop + Captive Power Plant + Cold Rolling Mill + Ferro Alloy) 3.49 km² (862.28 Acre)	Hot Rolling Division (Steel Melting Shop, Hot Rolling Mill, Submerged Arc Furnace, Copper- Nickel Alloy) -0.630 km (155.67 acres)
		change	- Type of business activity	Jindal United Steel Limited (Hot Strip Mill) - 0.282 km² (69.58 acres).	Cold Rolling Division (Cold Rolling Division-I, II, III, Stainless Processing Division-I, II, III, Continuous Bright Annealing Line) - 0.363 km² (89.60 Acre)	
				Jindal Coke Limited (Coke Oven) - 0.293 km² (72.46 acres)		

Metric	Driver of			JSL Facility Data		Connection to GBF
No.	Nature I		Metric	Jajpur	Hisar	
A1.0	Land-use Change	Land-use intensity	Land-use intensity (tonnes or litres of output/ km²). This will vary by sector context; Sectoral context on metals and mining	364467.04 tonnes of output/ km <sup>2</sup>	1127813.26 tonnes of output/ km²	Land-use intensity (tonnes or litres of output/km²). This will vary by sector context; for example, crop yield (tonnes/km²) for the agriculture sector.
		Wastewater discharged	Volume of water discharged (m³), split into:	Zero Liquid Discharge Facility	Zero Liquid Discharge Facility	Target 7 (7.1 Index of coastal eutrophication potential), Target 11 (B.1 Services provided by ecosystems).
			- Total	0	0	
			- Freshwater	0	0	
C2.1	Pollution/ Pollution		- Other	0	0	
Removal	Removal		Includes concentrations of key pollutants and temperature of water discharged, referring to sector- specific guidance.	NA	NA	
A2.0	Pollution/ Pollution Removal	Wastewater treated, reused/ recycled or avoided	Volume of wastewater treated, reused or recycled (m³).	8660581.94 m3	686894 m³-Volume of water recycled (in KI) in ETP (473314KL) and STP (213580 KL)	Target 7, Target 11 (B.1 Services provided by ecosystems).



Metric	Driver of			JSL Facility Data		Connection to GBF
No.	Nature Change	Indicator	Metric	Jajpur	Hisar	
'			Plastic Waste: 1067.68 tons (Recycled)	Plastic Waste: 252.94 ton (Recycled)		
				E-Waste: 32.08 tons (Recycled)	E-Waste: 18.50 MT (Recycled)	
				Bio-Medical Waste: 0.2255 tons (Incinerated)	Bio-Medical Waste: 0.076 MT (Incinerated)	
			Weight of hazardous and	Battery Waste: 10.01 tons (Recycled)	Battery Waste: 14.04 MT (Recycled)	
			non-hazardous waste generated by type (tonnes), referring to sector-	"Other Hazardous	Other Hazardous Waste: Total- 155.95 MT	
			specific guidance	"Other Hazardous Waste:	Recycled- 87.76 MT	Target 7, Target 11
		Waste	for types of waste.		Other Recovery-68.18 MT	
				Total-74,912.33 tons	Other Non- Hazardous Waste: Total-290,315.05 MT	
	Pollution/				Recycled- 272,178.30 MT	
C2.2	Pollution Removal	generation and disposal	Weight of hazardous and non-hazardous waste (tonnes) disposed of, split into:  - Waste incinerated (with and without energy recovery)  - Waste sent to		Reused- 18,136.76 MT	(B.1 Services provided by
				Recycled-32048.41 tons	Biomedical waste- 0.076 MT- incinerated Without any energy recovery- Nil	ecosystems).
				Landfilled- 42851.98 tons	Nil	
			landfill  Weight of hazardous and non-hazardous waste (tonnes) diverted from landfill, split into: - Recycled/ Reused	п	Recycled/ Reused-897.89 tonnes	
			<ul> <li>Other recovery operations</li> </ul>			

Metric	Driver of			JSL Facility Data		Connection
No.	Nature Change	Indicator	Metric	Jajpur	Hisar	to GBF
C2.3	Pollution/ Pollution Removal	Plastic pollution	Plastic footprint as measured by total weight (tonnes) of plastics (polymers, durable goods and packaging) used or sold broken down into the raw material content.	"Other Non- Hazardous Waste: Total-1545917.30 tons Recycled-1661380.73 tons	252.94 MT	Target 7, Target 11 (B.1 Services provided by ecosystems
			Non-GHG air pollutants (tonnes) by type:	п		
			- Particulate matter (PM <sub>2.5</sub> and/ or PM <sub>10</sub> )	Biomedical waste- 0.2255 Ton- Without any energy recovery	N/A	Target 7,
C2.4	Pollution/ Pollution Removal	Non-GHG air pollutants	- Nitrogen oxides (NO <sub>2</sub> , NO and NOx)	CRM ETP Sludge- 42851.98 Ton	132.325MT	Target 11 (B.1 Services provided by ecosystems
			- Volatile organic compounds (VOC or NMVOC)	Recycled/Reused: 1694538.91 tonnes	N/A	, , , , , , , , , , , , , , , , , , , ,
			- Sulphur oxides (SO <sub>2</sub> , SO <sub>3</sub> , SO <sub>x</sub> )	1067.68 Ton	25.742 MT	
			- Ammonia (NH₃).	N/A	N/A	
A2.2	Pollution/ Pollution Removal	Pollutants removed	Volume of pollutants removed from land, atmosphere, ocean, and freshwater (tonnes).	1235.72 MT	Total Recycled Waste: 272551.54 MT	
C3.0	Resource Use and Replenishment	Water withdrawal and consumption from areas of water scarcity	Water withdrawal and consumption (m³) from areas of water scarcity, including identification of water source.	2337.09 MT	Withdrawal:2336887 KL Consumption:2704198 KL Water source: Canal from irrigation department	Target 11 (B.1 Services provided by ecosystems)
A3.0	Resource Use and Replenishment	Total water consumption and withdrawal	Total volume of water withdrawal and consumption (m³).	N/A	Withdrawal: 2336887 KL Consumption: 2704198 KL	



Metric	Driver of			JSL Facility Data		Connection
No.	Nature Change	Indicator	Metric	Jajpur	Hisar	to GBF
	Resource Use and Replenishment	Water consumption and withdrawal by source	Volume of water consumption and withdrawal (total, freshwater, other) by source (e.g., surface water, groundwater, seawater, produced water, third-party water).	4495.10 MT	Surface Water withdrawal: 2336887 KL Surface water consumption+ Harvested rainwater consumption: 2336887 KL	
C4.0	Invasive Species and Other	Measures against the unintentional introduction of invasive alien species (IAS)	Proportion of high-risk activities operated under appropriate measures to prevent unintentional introduction of IAS, or low- risk designed activities.	N/A	Regular monitoring and weeding around high-risk plant species. Use of native and medicinal plants (e.g., Neem, Sacred Fig) to minimize the risk of introducing IAS. Optimal tree spacing and landscaping designed to reduce risk of IAS establishment by promoting healthy plant growth.	Target 6, Target 11 (B.1 Services provided by ecosystems)



# **WAY FORWARD**

Jindal Stainless Limited (JSL) has progressed in integrating nature conservation into operations since publishing its inaugural TNFD report. This second TNFD-aligned disclosure demonstrates measurable progress while charting a clear path toward ambitious nature-positive goals.

### Progress in FY 2024-25: From Planning to Implementation

In the past year, JSL has transitioned from foundational assessment to active implementation:

Strategy



### **Biodiversity Risk Management**

We completed comprehensive Biodiversity Risk Assessments (BRA) and implemented Biodiversity Management Plans (BMP) for our Jajpur, Hisar, and Vizag facilities. These BMPs utilize a risk mitigation hierarchy of avoidance, minimization, rehabilitation/restoration, and offsets to address habitat loss, water pollution, and air quality concerns.



# Policy Institutionalization and Advocacy

JSL has adopted critical sustainability policies—Biodiversity Policy, Environment Policy, Climate Change Policy, and Water Management Policy—creating a robust governance framework that embeds nature considerations into strategic, financial, and risk management processes. Beyond establishing policies, JSL actively advocates for industry adoption of green practices. By participating in national and international discussions and engaging with regulators and associations, JSL pushes for policies that support low-carbon technologies, circular economy, and sustainable sourcing. These efforts, guided by internal and stakeholder input, help shape India's green industrial future and are outlined in the company's Integrated Report.



### **Conservation Outcomes**

In FY 2024-25, our biodiversity initiatives resulted in the plantation of approximately 89,000 saplings across and around our operational areas, directly contributing to ecosystem restoration and the enhancement of local habitats. Notably, in Jajpur, we created a significant positive impact, covering around 0.8448 sq km through a range of conservation activities. In addition, we successfully conducted field-based community consultations in four villages neighboring our facilities, ensuring that traditional ecological knowledge was integrated into the design and implementation of our conservation strategies. These collective efforts not only support environmental rejuvenation but also foster stronger partnerships with local communities, reinforcing our commitment to sustainable and inclusive growth.



We have begun extending biodiversity assessments beyond direct operations to our value chain, focusing on dependencies, risks, and opportunities among key suppliers and customers.

### Climate-Nature Integration

We commissioned a 30 MWp solar energy project at Jajpur, including 7.3 MWp of floating solar, demonstrating how renewable energy investments deliver both decarbonization and nature-positive outcomes. Through JSL Super Steel Limited, we secured an 11 MWp renewable Power Purchase Agreement, advancing our Net Zero by 2050 commitment.

Our water stewardship approach integrates Zero Liquid Discharge (ZLD) facilities at both manufacturing sites with comprehensive water roadmaps targeting water neutrality, supported by internal water pricing mechanisms under development to embed the true value of water into operational decisions. Advancing circular economy principles, we achieved 72% recycled material utilization in our input mix, maximizing scrap steel use while minimizing virgin resource extraction and associated biodiversity impacts. These integrated climate-nature solutions demonstrate how operational efficiency, resource circularity, and ecosystem protection reinforce each other to build long-term business resilience.



### Priorities in the years ahead

Jindal Stainless Limited's strategic priorities for the coming years focus on operational excellence, scaling impact, and achieving nature-positive leadership. In the short term (2025-2027), the company will enhance site-specific Biodiversity Management Plans (BMPs), implement No Net Loss studies across all operational sites, expand participatory conservation with communities, ensure 100% ESG assessments of critical suppliers, and strengthen biodiversity monitoring and reporting frameworks. The medium-term goals (2027-2030) aim to move from sitelevel to landscape-scale conservation, pursuing ecosystem connectivity, watershed health, and water body restoration. JSL will also advance Zero-Waste-to-Landfill certification, expand renewable energy capacity to 300 MW, and integrate nature-positive practices throughout its supply chain. Looking ahead to 2030-2050, JSL aspires to achieve net positive biodiversity outcomes, align with global and national frameworks such as the Kunming-Montreal GBF and India's NBSAP, and embed biodiversity values across

business decisions. The company targets Net Zero GHG emissions by 2050, supported by substantial investment in decarbonisation technologies, and seeks to lead industry-wide adoption of nature-positive practices through collaboration and transparent disclosure.

JSL's way forward recognizes that business success and environmental health are interdependent. By investing in biodiversity conservation, ecosystem restoration, and community partnership, we build long-term resilience while contributing to the health of natural systems that support all life.

We invite our stakeholders—employees, investors, suppliers, customers, communities, regulators, and partners—to join this journey. Through systematic planning, bold action, and transparent accountability, JSL is committed to catalyzing nature-positive transformation in India's industrial sector and beyond.



# **APPENDIX**

	TNFD Recommended Indicators	Page No.
	<b>A.</b> Describe the board's oversight of nature-related dependencies, impacts, risks, and opportunities.	
Governance	<b>B.</b> Describe management's role in assessing and managing nature-related dependencies, impacts, risks, and opportunities	
Covernance	C. Describe the organization'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 organization's assessment of, and response to, nature related dependencies, impacts, risks, and opportunities.	
	<b>A.</b> Describe the nature-related dependencies, impacts, risks, and opportunities the organization has identified over the short, medium, and long term.	
Chronic	<b>B.</b> Describe the effect nature-related dependencies, impacts, risks, and opportunities have had on the organization's business model, value chain, strategy, and financial planning, as well as any transition plans or analysis in place.	
Strategy	<b>C.</b> Describe the resilience of the organization's strategy to nature-related risks and opportunities, taking into consideration different scenarios.	
	<b>D.</b> 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.	
	A(i). Describe the organization's processes for identifying, assessing, and prioritizing nature-related dependencies, impacts, risks, and opportunities in its direct operations.	
Risk and Impact	A(ii). Describe the organization's processes for identifying, assessing, and prioritizing nature-related dependencies, impacts, risks, and opportunities in its upstream and downstream value chain(s).	
Management	<b>B.</b> Describe the organization's processes for managing nature-related dependencies, impacts, risks, and opportunities.	
	<b>C.</b> Describe how processes for identifying, assessing, prioritizing, and monitoring nature-related risks are integrated into and inform the organization's overall risk management processes.	
	<b>A.</b> Disclose the metrics used by the Company to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process.	
Matrices and Targets	<b>B.</b> Disclose the metrics used by the Company to assess and manage dependencies and impacts on nature.	
	C. Describe the targets and goals used by the Company to manage nature-related dependencies, impacts, risks, and opportunities and its performance against these.	
TNFD	TNFD stands for the Taskforce on Nature-related Financial Disclosures, an international framework that enables companies and financial institutions to assess their dependencies and impacts on nature, evaluate risks, opportunities, and prepare for disclosures.	
Biodiversity	Biodiversity is the rich variety of living organisms and their connections at the ecosystem, species, and genetic levels. It is defined by the Convention on Biological Diversity (CBD).	

	TNFD Recommended Indicators	Page No.
Nature Positive	Nature Positive aims to halt and reverse biodiversity loss, putting nature on a path to recovery for the benefit of people and the planet.	
Biodiversity Risk Assessment (BRA)	Biodiversity Risk Assessment (BRA) is the process of identifying, evaluating, and prioritizing the potential risks that business activities pose to biodiversity, including impacts on species, habitats, and ecosystems.	
Biodiversity Management Plan (BMP)	Biodiversity Management Plan (BMP) outlines the strategies and actions a company takes to mitigate the identified risks to biodiversity, ensuring sustainable management and conservation of ecosystems impacted by its operations.	
Nature – related Issues	Nature-related issues refer to the dependencies and impacts organizations have on nature, including the risks they pose and the opportunities they create.	
Global Biodiversity Framework (GBF)	The Global Biodiversity Framework (GBF) is a post-2020 international framework with 3 goals and 23 targets, aiming for a world where biodiversity is valued, conserved, restored, and used wisely by 2050.	
Convention on Biological Diversity (CBD)	The Convention on Biological Diversity (CBD) focuses on the conservation of biological diversity, sustainable use of its components, and the fair and equitable sharing of benefits arising from genetic resources.	
Dependencies	Dependences are aspects of ecosystem services and environmental assets that an organization relies on to function, such as water quality regulation or flood control.	
Impacts	Impacts are changes in the state of nature (quantity or quality) that affect nature's capacity to provide social and economic functions. They can be positive or negative, direct or indirect.	
Ecosystem Services	Ecosystem services are the contributions of ecosystems that provide benefits to human and economic activity, categorized as provisioning, regulating, cultural, and supporting services.	
Risk Mitigation Hierarchy	A structured approach to addressing and managing risks to biodiversity, including avoidance, minimization, rehabilitation, and offsetting.	
No Net Loss	Commitment to ensuring that industrial activities do not result in a net loss of biodiversity, through mitigation and offsetting measures.	

	JSL's Suppliers				
1	S1	Jamtara, Jharkhand, India			
2	S2	Durgapur, West Bengal, India			
3	S3	Byrnihat, Assam, India			
4	S4	Ras Al Khaimah, Dubai			
5	S5	Collyer Quay, Singapore			
6	S6	Burdubai, Dubai			
7	S7	Gurgaon, Haryana, India			
8	S8	Noumea, New Caledonia, India			
9	S9	Faridabad, Haryana, India			
10	S10	Jajpur, Odisha, India			

JSL's Customers				
1	C1	Mumbai, Maharashtra		
2	C2	Mumbai, Maharashtra		
3	C3	Mumbai, Maharashtra		
4	C4	Mumbai, Maharashtra		
5	C5	Mumbai, Maharashtra		
6	C6	Howrah, West Bengal		
7	C7	Mumbai, Maharashtra		
8	C8	Mumbai, Maharashtra		
9	C9	Hisar, Haryana		
10	C10	Delhi, Delhi		

SL No.	Site Name	Address
1	Service Center/ Global Office	Iber jindal S.L, Ctra. Cordoba-Malaga, Km 80'800, 14900 LUCENA (Cordoba), Spain
2	Service Center/ Sales Office	Office No. 902/903, Samanvay Silver, Shivaji Circle, Mujmahuda, Akota, Vadodara, Gujarat- 390020
3	Service Center	Plot No. N-13, Addl.Patalganga Ind Area,Tal - Khalapur, Dist- Raigad, Maharashtra
4	Service Center	Survey No. 2 of No. 19, Chinna Puliyar Village, Gummidipoondi Taluk, Distt. Thiruvallur, Chennai - 601201
5	Service Center	VPO - Pathredi, Bilaspur - Tauru Road, Gurugram – 122413
6	Sales Office	Jindal Stainless Ltd, 401-402, Florence, Opposite, Ashram Road Post Office, Ashram Road. Ahmedabad-380006
7	Sales Office	Stainless Centre, 1st Floor, Plot No-50, Sector 32, Gurugram - 122001
8	Sales Office	Jindal Mansion, 1st Floor, 5A, G. Deshmukh Marg (Pedder Road) Mumbai - 400026
9	Sales Office	209, Regent Plaza, 2nd Floor,Baner - Pashan Link Road, Baner, Pune 411045
10	Sales Office	H. No: 1-10-74/C, Flat no: G 201/A, 2nd Floor, Technopolis Galada Complex Begumpet, Hyderabad 500016
11	Sales Office	"HEVITREE", 1st Floor, No.47, Spurtank Road, Chetpet 600031
12	Sales Office	J-802, Raheja Residency, Near St. Xavier School, Labhandi , Raipur - 492001
13	Sales Office	14, Forest Park, Airport Road, Bhubaneswar, Khurda, Pin Code - 751009
14	Sales Office	3A, Duckback House, 41, Shakespeare Sarani, Kolkata - 700 017
15	Global Office	Excel Stainless USA, LLC, 2020 Calamos Court, Naperville, IL 60563, USA
16	Global Office	Gemin Metais Ltda (Rep. of JSL), Rua Java, 34 SL 14 S.B., Campo - ZIP code 09750-650 - SP – Brazil

SL No.	Site Name	Address
17	Global Office	Jindal Stainless Ltd, Quellinstraat 49, 2018 Antwerp, Belgium
18	Global Office	Hage Fittings und Flanschen GmbH, Mathias-Brüggen- Str.7650827 Köln, Germany
19	Global Office	Nuer S.A. VIA Cantonale 1/A,Ch-6900 Lugano, Switzerland
20	Global Office	Mashattan Sitesi. Blok A5 K 03, Ahi Evran caddesi, Maslak Mh.Sariyer 34485 Istanbul, Turkey
22	Global Office	Prime Stainless DMCC, PO Box. 242645, Office No. 201, 202 Sobha Ivory-1, Business Bay, Dubai, United Arab Emirates
23	Global Office	Jindal Stainless Limited, D-1776, JNI Center, Acrotower, 230, simin-daero, Dongan-gu, Anyang-si, Gyeonggi-do, South Korea, Post Code: 14067
24	Global Office	No. 12, Street No. 5, Tan Phong Ward, District 7, Ho Chi Minh City, Vietnam
25	Global Office	JSL Global Commodities Pte. Ltd, #12-07, SBF Centre, 160 Robinson Road, Singapore 068914
26	Manufacturing Site	Jindal Stainless Limited, Kalinga Nagar Industrial Complex, Duburi District, Jajpur, 755026, Odisha, India
27	Manufacturing Site	Jindal Stainless Limited, O.P. Jindal Marg, Hisar-125005, Haryana, India





#### **Corporate Office**

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Email for Investors: investorcare@jindalstainless.com