



CORPORATE SUSTAINABILITY REPORT 2024-25



Strength Rooted in Sustainability



OUR VISION

To be a respected world class corporation and the leader in Indian steel business in quality, productivity, profitability and customer satisfaction.



OUR CREDO

- We build lasting relationships with customers based on trust and mutual benefit.
- We uphold highest ethical standards in conduct of our business.
- We create and nurture a culture that supports flexibility, learning and is proactive to change.
- We chart a challenging career for employees with opportunities for advancement and rewards.
- We value the opportunity and responsibility to make a meaningful difference in people's lives.

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MESSAGE FROM Chairman and Managing Director



Dear Stakeholders,

It gives me immense pleasure to present the Corporate Sustainability Report of Steel Authority of India Limited (SAIL) for the financial year 2024-25. This report offers a comprehensive overview of SAIL's performance across the Environmental, Social and Governance (ESG) pillars. In today's global context, where sustainable growth and inclusive development are essential to long-term business resilience, SAIL continues to reinforce its commitment to responsible operations and sustainable value creation.

We are embedding sustainability deeply into every aspect of our operations—from adopting energy-efficient technologies and reducing emissions, to uplifting communities around our plants and mines. Alongside, we are actively investing in circular economy initiatives, fostering innovation and strengthening a culture of safety and ethical governance across the organization.

Our R&D Centre is actively pursuing transformative and future-ready initiatives aimed at decarbonizing steelmaking. Key focus areas include the adoption of non-fossil fuel energy sources, advanced coal drying technologies and development of industrial-scale

Carbon Capture, Utilization and Storage solutions.

On the environmental front, we achieved significant progress. Our total capacity for wastewater treatment and recirculation rose to 128 million cubic metres per year. Through continued conservation efforts, we reduced water consumption by 688 million litres compared to the previous year. In our ongoing afforestation program, we planted 3 lakh saplings during the year, taking our cumulative tally to an impressive 22.4 million saplings. We also recorded our lowest ever specific energy consumption at 6.26 Gcal per tonne of crude steel—an outcome of operational efficiency and process optimization. Additionally, more than 1.2 million conventional lights have now been replaced with LED lighting systems, including 1.72 lakh new installations in FY 2024-25, underlining our commitment to energy conservation.

Our social initiatives continue to be anchored in the belief that progress must be inclusive. With a total CSR outlay of ₹137.63 crore, we positively impacted over 10 lakh lives in FY 2024-25. Approximately 3 lakh individuals benefitted from our health-related interventions; 113450 students received educational

support; around 4500 individuals were trained under skill development programs and about 5000 persons with disabilities were assisted through focused schemes. In addition, infrastructure and sanitation projects reached another 3 lakh people, 2 lakh individuals engaged in our environmental awareness programs and around 1 lakh benefitted from our sports and cultural initiatives. These outcomes reflect our strong resolve towards community development and equity.

Our commitment to inclusive growth is also reflected in our stakeholder and supplier engagement. SAIL achieved a Customer Satisfaction Index of 97%—a clear testament to the enduring trust reposed in us by our partners. Our procurement from Micro and Small Enterprises (MSEs) reached more than ₹2586 crore. Significantly, procurement from women-owned MSEs reached more than ₹125 crore, reinforcing our dedication to fostering equitable economic opportunities.

On the governance and safety front, SAIL continues to uphold transparency, accountability and employee well-being as its guiding principles. Recognition of SAIL as a 'Great Place to Work' during this year also reflects our strong people-first culture and performance-driven work environment.

Looking ahead, we remain aware that the path to sustainability demands constant innovation, introspection and collaboration. Our future roadmap includes accelerated efforts towards decarbonisation, the integration of circular economy principles, digital transformation and proactive stakeholder engagement.

On behalf of the entire SAIL family, I express my gratitude to our employees, customers, partners, government authorities and communities for their steadfast support. Your trust inspires us to continue shaping a future that is enduring, sustainable and inclusive.

Jai Hind

With best compliments



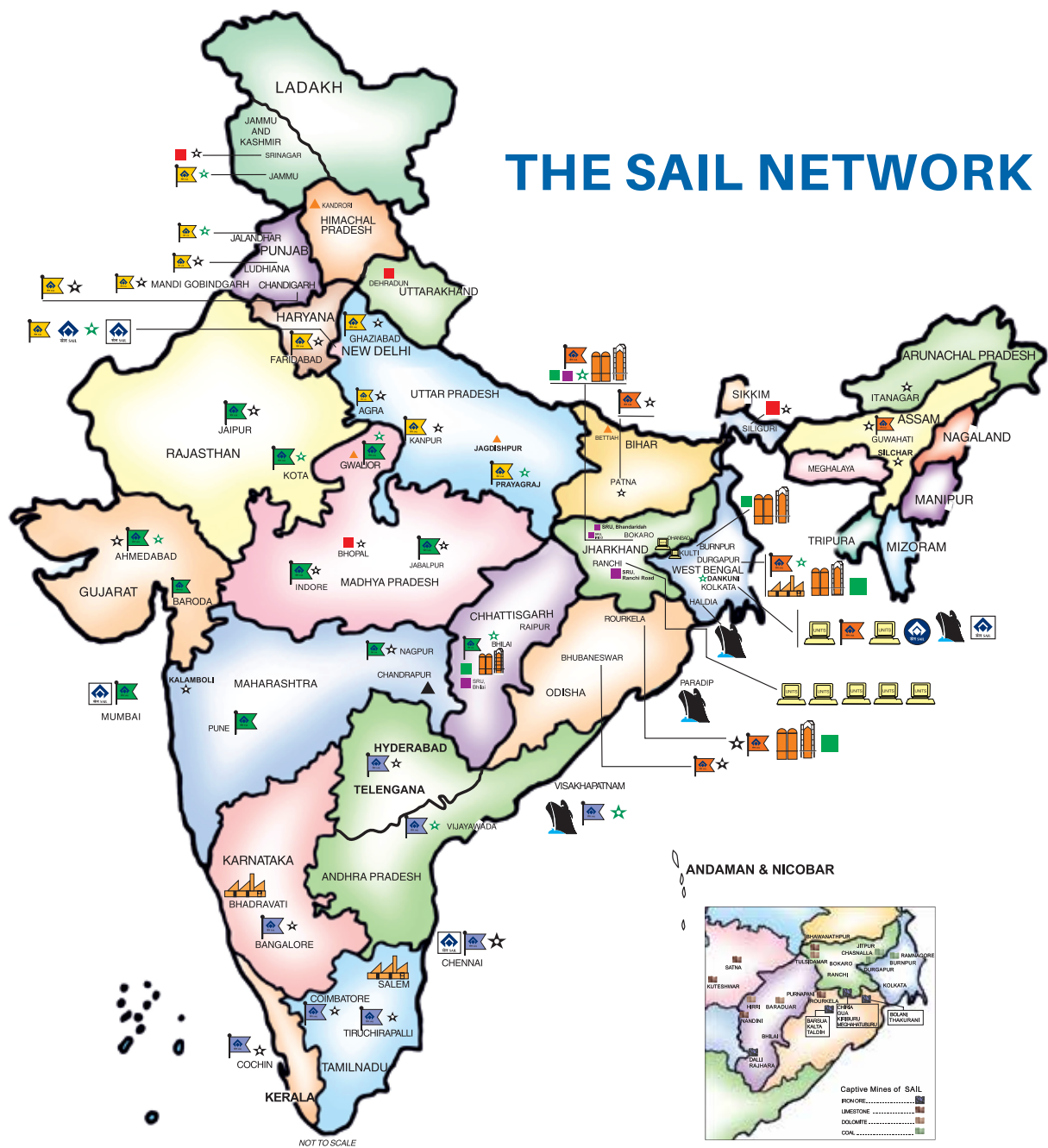
(Amarendu Prakash)

Chairman and Managing Director
Steel Authority of India Limited

SAIL: Powering Progress Across Every Corner of India

SAIL has strategically located marketing network across India. This large network consists of Regional Offices, Sales Branches, Warehouses, Distributers and Dealers.





CORPORATE OFFICE	UNITS	CONSIGNMENT AGENTS / CHA YARD	BRANCH SALES OFFICES
INTEGRATED STEEL PLANTS	CMO HEAD QUARTERS	SALES RESIDENT MANAGER	1. NORTHERN REGION
ALLOY AND SPECIAL STEEL PLANTS	REGIONAL OFFICES	CUSTOMER CONTACT OFFICE	2. EASTERN REGION
FERRO ALLOY PLANT	STEEL PROCESSING UNIT	SAIL REFRACTORY UNIT (SRU)	3. WESTERN REGION
	DEPARTMENTAL WAREHOUSE	LOGISTICS & INFRASTRUCTURE DEPARTMENT	4. SOUTHERN REGION

About the Report

Period

(GRI 2-2)

SAIL has been regularly publishing its Annual Sustainability Report since FY 2010-11 and is pleased to now present its 15th Sustainability Report for FY 2024-25. All Sustainability Reports have integrated the business operations in an ethical and transparent manner while reinforcing commitment towards sustainable development, keeping interests of the Company's Stakeholders at the forefront. The report has information on the

material topics significant for SAIL's business as well as for the stakeholders.

Reporting Year & Cycle

(GRI 2-3 a, b, c)

The present report covers sustainability performance of the Company for the period April 1, 2024 to March 31, 2025. This report is in continuation to the earlier report published for the FY 2023-24. The report can also be downloaded from SAIL website (www.sail.co.in).



Framework

All Corporate Sustainability Reports of SAIL have followed the GRI Standards. The top management has decided to continue to use the GRI Standards for FY 2024-25 also. This report has been prepared in accordance with the GRI Standards. The report has been prepared to disclose Company's performance on Economic, Environmental, Social and Governance topics to its stakeholders.

Scope

(GRI 2-2, 2-3b, 2-4, GRI 204-1 b, c)

Information from the Annual Report of the Company for the Financial Year 2024-25, ending March 31, 2025 has been used for presenting financial details in the economic performance section of this report and social and environmental performances of Plants, Units and Mines (operating) located in India in the respective sections. Pages 10-11 of the report give information on the boundary of the report covering inter-alia Plants, Units and Mines. In this report, the local implies operation in India. No unit has been shifted, divested or closed during the FY 2024-25. SAIL is transparent in sharing all significant events of the past and the projections of their impacts to occur in future. The Company maintained the data quality of the report while ensuring accuracy, reliability, timeliness, clarity and comparability of figures and periods that form the base of reporting.

Standards

International Standards such as ISO 9001, ISO 14001, ISO 45001 and SA 8000 have been used for reporting on Quality, Environment, Health and Safety Management and Social Accountability. For reporting financial performance of the Company, the Company Law guidelines have been referred to. The Company ensures commitment to Economic and Financial systems by regularly undertaking the statutory audits as well as internal audits. Our systems are open to verification and review by the government authorities. For reporting on Carbon Dioxide (CO₂) emissions from

our Integrated Steel Plants (ISPs), we follow the World Steel Association (WSA) guidelines and calculation methodologies. For maintaining the Company's work environment and safety regulations, we diligently follow requisite regulations issued from time to time by the Ministry of Environment, Forest and Climate Change (MoEFCC) and the Factories Act, 1948. Materiality Assessment has definitely helped us in prioritizing issues pertaining to economic, environment and social aspects of Sustainability and stakeholder engagement process. The material topics, explained in the respective chapter, are established through this materiality assessment process.

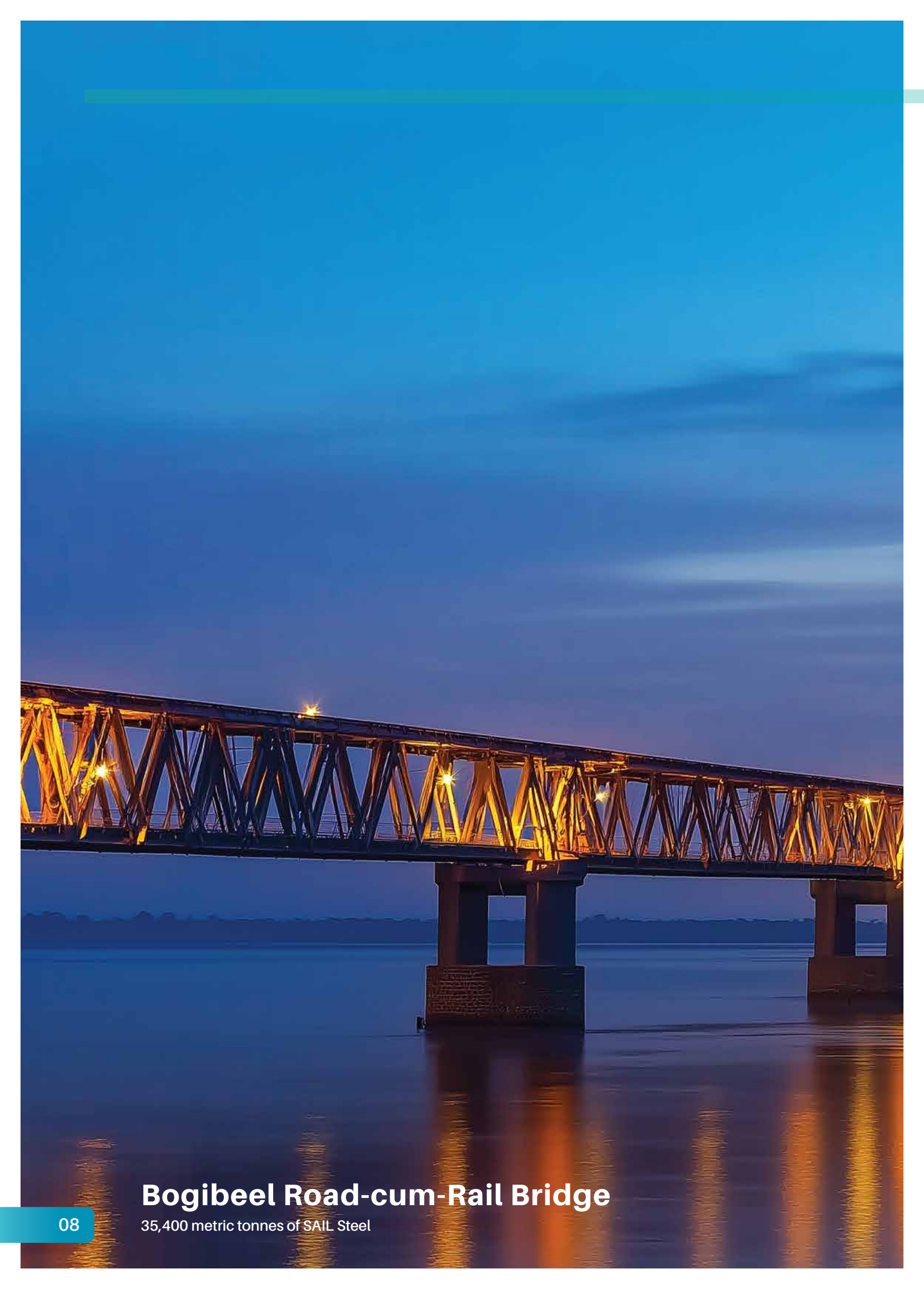
Data Validation and Assurance

(GRI 2-5a, b, 2-3d)

No External Assurance was carried out for this report.

The full report has been prepared using English Language. The report can be requested via email too. Stakeholder feedback on the report shall be reported to the relevant department upon its receipt via email. Any other additional information about SAIL's efforts on sustainable development can be sought at sailsustainability@gmail.com.





Bogibeel Road-cum-Rail Bridge

35,400 metric tonnes of SAIL Steel

MAHARATNA SAIL



Maharatna SAIL

(GRI 2-1a, b, c, d, 2-2a, b, c, 2-6a, b,c, d)

Steel Authority of India Limited (SAIL), headquartered at New Delhi, India is one of the largest steel-making company in India and one of the 14 Maharatnas of the Country’s Central Public Sector Enterprises.

SAIL is a fully integrated iron and steel maker, producing both basic and special steels for domestic construction, engineering, power, railway, automotive & defence industries and for sale in export markets thereby responsible for driving the industrial revolution of modern India for more than six decades. SAIL produces iron and steel at five integrated plants and three special steel plants, located principally in the eastern and central regions of India and situated close to domestic sources of raw materials.

The Government of India owns about 65% of SAIL’s equity and retains voting control of the Company.

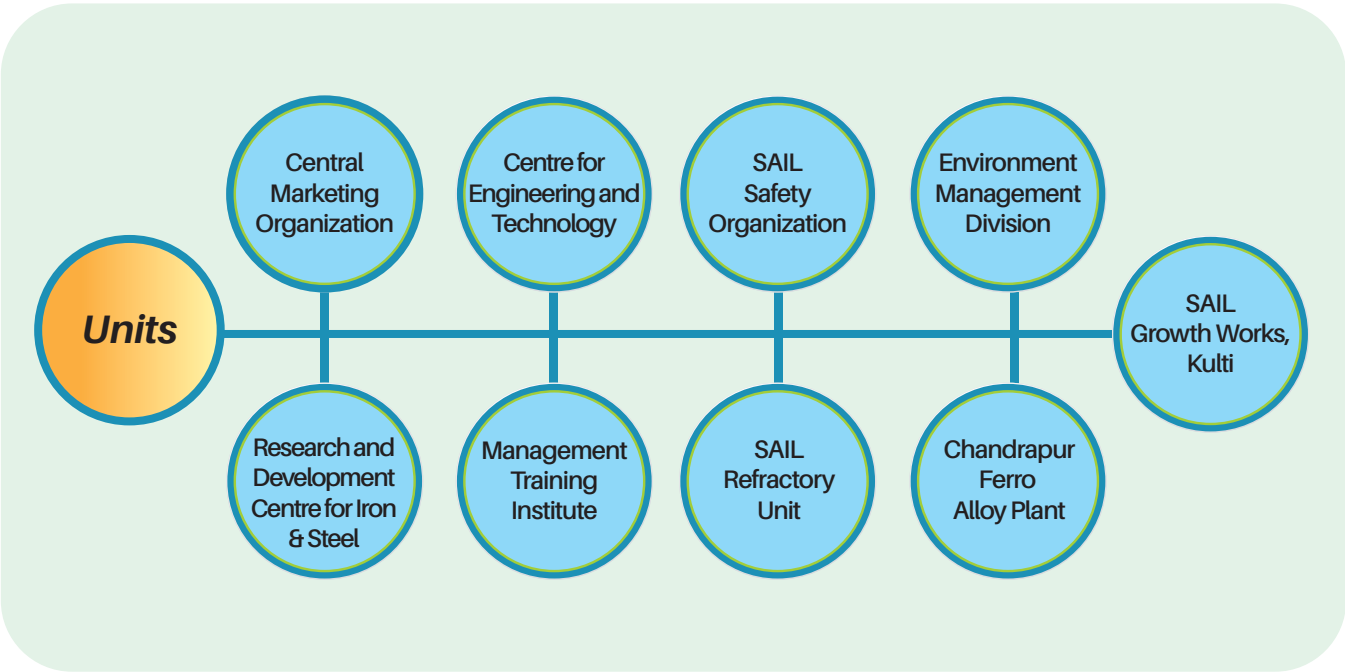
However, SAIL, by virtue of its ‘Maharatna’ status, enjoys significant operational and financial autonomy. Other shareholders include Insurance Companies (11.65%), Mutual Funds and UTI (4.09), Foreign Institutional Investors (3.20%), Banks & Financial Institutions (0.01%) and others (16.05%).

SAIL has been contributing in nation building since inception by servicing the requirement of various infrastructure projects and also projects of strategic importance. SAIL is proud to be associated with important and strategic sectors like Defence, Railways, Metro, Infrastructure, Space, Power, Manufacturing, Irrigation etc. SAIL has formulated its VISION 2030 whereby it is envisaged to enhance the crude steel capacity in a plant-wise phased manner. SAIL has also done its desktop study on the market scenario, available resources including land bank. With the improved leverage position, the Company is ready to move into the next realm of expansion.

Scope of the Report

The following SAIL Plants, Units and Mines (operating) are covered in the Scope of this report.





(GRI 2-2,2-6)

The Marketing Network

(GRI 2-2, 2-6 a, b, c, d)

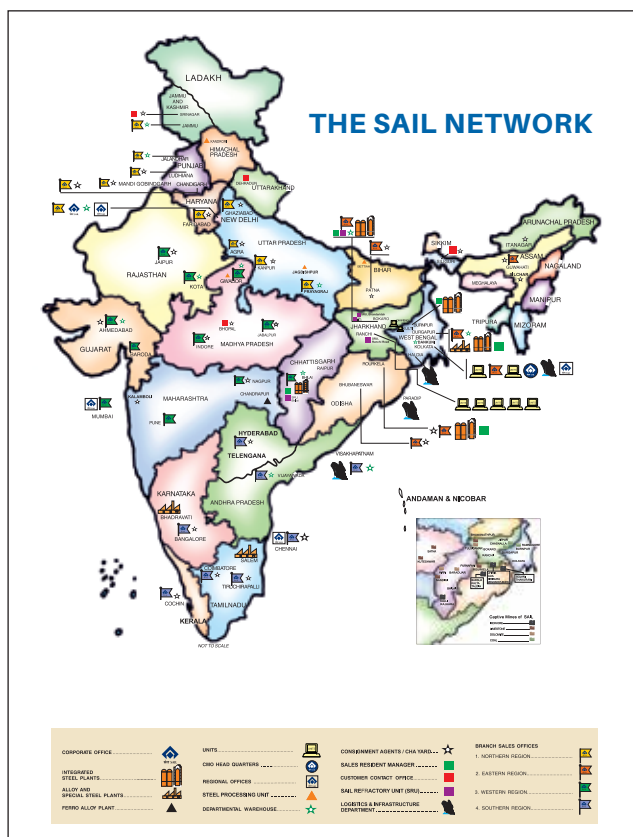
SAIL has the largest marketing network among all steel producers in the Country. As on 31st March, 2025, SAIL's functional network of marketing offices consists of 35 Branch Sales offices, 4 Customer Contact offices and 35 Stockyards (20 having handling operations on SAIL land and 15 Consignment Agency Yards). Marketing efforts are further supplemented through SAIL's retail Channel that reaches the products of mass consumption to remote corners of India.

SAIL has an extensive dealership network comprising of more than 4700 dealers for TMT spread across the Country. With 59 distributors already in place in the 2-tier distribution network as on 31st March, 2025, this channel of retail sales is being further strengthened. Around 13.27 lakh tonnes of TMT were supplied through the 2-Tier distributor network during FY 2024-25. SAIL also has Tier-I distributor system for sales of Hot Rolled Products, Cold Rolled Products, Galvanized Products, Electrical Steels, PM Plates, Structural's, Wire Rods and Pipes to improve the system of servicing demand of small consumers, B2B industrial segments and to provide single window servicing of small customers including value added services. SAIL Tier-1 distribution network comprised of 64 distributors as on 31st March, 2025. This huge network spread across the Country helps in meeting the requirements of a wide range of customers spread through length and breadth of the Country. Out of total sales of 28.81 lakh tonne to retail segment during April to March, 2025, sales through Tier-2 distributors and dealers was 13.27 lakh tonne. Sales through Tier-1 distributors during the Financial Year was 15.54 lakh tonne.

In order to help build awareness and acceptance of steel usage in rural areas, SAIL has an ongoing rural outreach programme "Gaon ki ore". Under the campaign, 400 workshops have been conducted during FY 2024-25 across the Country with focus on small consumers, etc.

SAIL launched its reinforcement bar brand "SAIL-SeQR" in 2019-20. The brand is being promoted as better quality steel for safer homes. This brand is focused to enhance retail presence of SAIL with special emphasis on rural penetration. The brand "SAIL SeQR" for TMT has been further strengthened by clocking sales of 12.85 lakh tonnes during FY 2024-25, compared to 8.47 lakh tonnes in the previous year, thereby registering a growth of 51%. In addition to this, BRAND'NEX' for Structural's is also being promoted.

In the 2024-25 period, there were no incidents of non-compliance with regulations or voluntary codes related to marketing communications, advertising, promotions, or sponsorships. We received no complaints regarding breaches of customer privacy or data loss, and no fine was imposed for non-compliance with laws and regulations concerning the provision or use of products and services. Additionally, there were no instances of anti-competitive behavior or violations of antitrust and monopoly legislation.



SAIL Subsidiaries and Joint Ventures

Subsidiary Companies

- SAIL Refractory Company Limited
- Chhattisgarh Mega Steel Limited

Joint Venture Companies

- NTPC-SAIL Power Company Limited
- Bokaro Power Supply Company Private Limited
- SAIL Bansal Service Centre Limited
- Mjunction Services Limited
- Bhilai Jaypee Cement Limited
- International Coal Ventures Private Limited
- SAIL SCL Kerala Limited
- SAIL-RITES Bengal Wagon Industry Private Limited
- SAIL Kobe Iron India Private Limited
- Prime Gold-SAIL JVC Limited
- VSL SAIL JVC Limited
- GEDCOL SAIL Power Corporation Limited
- Romelt-SAIL (India) Limited
- Bastar Railway Private Limited

Associate Company

- Almora Magnesite Limited

Other Association and Memberships

(GRI 2-6, 2-28)

SAIL is associated with various Government and Regulatory Authorities that support the Company to abide by its values and operate with integrity and transparency. Our stakeholders are valuable to us, and

we engage ourselves with matters relating to public good for our stakeholders through these associations. During FY 2024-25, as per available information, the Company has 19 active affiliations with trade and industry chamber associations. The top 10 trade and industry chambers/associations are given below:

S.No.	Name of the trade and industry chambers/ associations	Reach of trade and industry chambers/associations (State/National)
1	Federation of Indian Chambers for Commerce and Industry (FICCI)	National
2	Standing Conference of Public Enterprises (SCOPE)	National
3	Indian Steel Association (ISA)	National
4	World Steel Association & International Stainless Steel Forum (ISSF)	International
5	Indian Iron and Steel Sector Skill Council (IISSS)	National
6	All India Management Association (AIMA)	National
7	Forum of Women in Public Sector (WIPS)	National
8	World Confederation of Productivity Science (WCPS)	National
9	Centre for Organisation Development (COD)	National
10	Indian Institute of Metals, Kolkata (IIMK)	National

Production Highlights

2024-25

Hot Metal Production : 20.30 MT

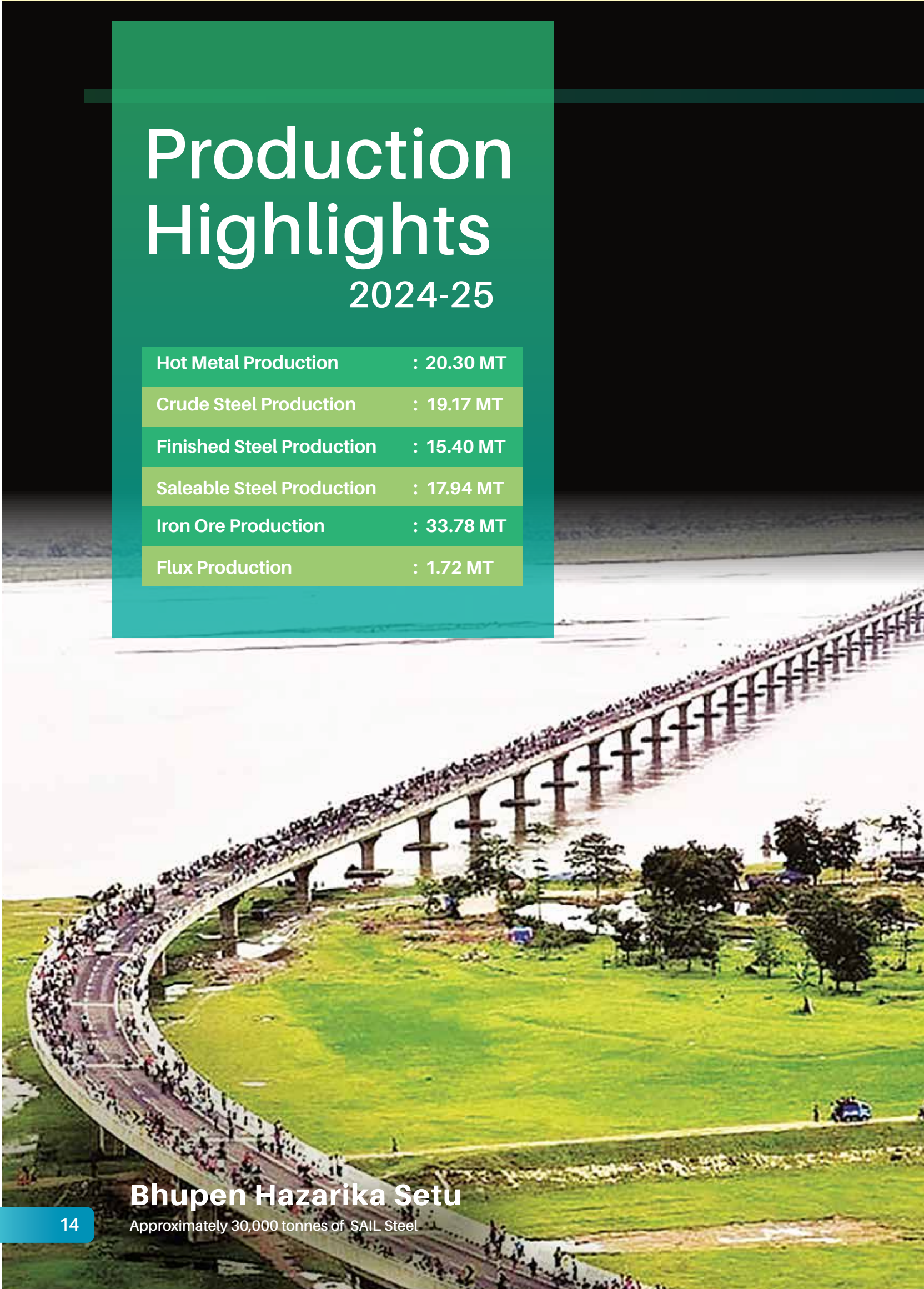
Crude Steel Production : 19.17 MT

Finished Steel Production : 15.40 MT

Saleable Steel Production : 17.94 MT

Iron Ore Production : 33.78 MT

Flux Production : 1.72 MT



Bhupen Hazarika Setu

Approximately 30,000 tonnes of SAIL Steel

ESG Performance Highlights

Environment

- Capacity of wastewater treatment and recirculation reached to 128 million m³/year
- Water consumption reduced by 688 mega litre in 2024-25 vis-à-vis 2023-24
- Around 22.4 million saplings planted since inception of SAIL. Around 3 lakh saplings planted in 2024-25 at SAIL Plants, Units and Mines
- 98% (more than 1.2 million) conventional lights replaced with LED at SAIL Plants, Units and Mines
- Lowest Sp. Energy Consumption of 6.26 Gcal/tcs achieved in 2024-25



Social

- Total CSR Budget in 2024-25 was ₹137.63 crores
- More than 10 Lakh people benefited through SAIL's CSR projects in FY 24-25
- Customer Satisfaction Index at 97%
- Procurement of goods from MSEs stands at ₹ 2586.52 Cr in FY 2024-25, which is approximately 35.32% of the total procurement
- Procurement from women MSEs- ₹125.24 Cr (1.71%)



Governance

- Zero fatality at RSP in 2024-25
- Zero fatality at ISP for last 3 years viz. 2022-23, 2023-24 & 2024-25
- CPGRAM Complaints received during the Year: 857, out of which 824 disposed
- Great place to work



SUSTAINABLE DEVELOPMENT STRATEGY



Wire Rods

Sizes from 5.5 mm to 22 mm of SAIL Steel



Sustainable Development Strategy

SAIL is deeply committed to giving back to society, a value that has not only fostered meaningful engagement with stakeholders but also positioned the Company as a global leader in sustainability efforts. This commitment is realized through well-designed community initiatives and the unwavering dedication of our corporate family. Our operations, spanning across Plants, Mines and Units, are guided by our core principles of social, ethical, and environmental responsibility.

The Company's Sustainable Development Policy is the cornerstone of our vision and action, shaping our approach to business integrity, governance, product development, social responsibility, and environmental stewardship. We embed sustainability into every aspect of our operations, continuously launching programs that align the business objectives of our employees with the mission and values of SAIL. This approach ensures the well-being of our employees and the communities we serve.

Our sustainability priorities are shaped by ongoing feedback from stakeholders, emerging industry trends, and evolving regulatory standards. These insights are integrated into organizational framework, fostering accountability and driving the successful implementation of sustainability initiatives. We also collaborate closely with our supply chain partners to enhance our product portfolio and quality, thereby making a positive impact on societal development. We monitor and optimize supply chain processes, logistics, and technologies, ensuring any changes in product mix or quality improvements align with our sustainability goals.

Through this holistic approach, SAIL has strengthened its reputation, exceeded customer expectations, and identified new growth opportunities, all while fostering a positive work environment. Our commitment to corporate social responsibility continues to play a central role in our ability to engage with stakeholders constructively, driving our leadership in global sustainability efforts. This success is the result of a strong commitment to community engagement, ethical practices, and the collective dedication of our corporate family.

Sustainability Strategic Priorities of SAIL

- **Lead the Steel Industry:** To be a pioneering force in the steel sector, driving innovation and excellence in every facet of the business.
- **Uphold High Ethical Standards:** To conduct business with the utmost integrity, ensuring transparency, fairness, and ethical decision-making at all levels.
- **Drive Sustainable Growth:** To develop and implement growth strategies that enable continuous market expansion while ensuring long-term sustainability.
- **Benchmark against Global Best Practices:** To continuously assess and enhance our operations, striving for excellence across the entire value chain by adopting global best practices.
- **Achieve Excellence in Environmental Management:** To lead in environmental stewardship by embracing cutting-edge technologies and processes that minimize our ecological footprint.
- **Enhance Operational Efficiency:** To monitor and implement continuous improvements in our comprehensive business model, including mining, steelmaking, marketing, human resources, and community development initiatives.
- **Fulfill Social Responsibilities:** To remain a socially responsible company, fulfilling our commitments to society through impactful initiatives that support sustainable development.
- **Foster Stakeholder Engagement:** To create participative mechanisms that engage all stakeholders-employees, customers, suppliers, and local communities-ensuring that "development with sustainability" is at the core of our operations.
- **Ensure Financial and Operational Sustainability:** To maintain a sustainable business model by adopting multidimensional approaches in cost management, financial planning, technology upgrades, product innovation, and the addition of new products that meet future market demands.

- **Invest in Future Growth:** To meet both domestic and global market demands by accelerating investments in new products, processes, and technologies, ensuring that SAIL remains a future-ready leader in the industry.

These strategic priorities guide SAIL's commitment to sustainable growth, ensuring that every aspect of our business. is aligned with the long-term well-being of our stakeholders, the environment, and the global community.

SAIL SWOT Analysis

Strengths  1. Multi-located production units: Facilitates access to diverse and far-reaching markets, enhancing competitive advantage over domestic peers. 2. Extensive marketing and distribution network: Strong nationwide presence supports effective product delivery and market penetration. 3. Diversified product portfolio: Offers resilience against market fluctuations and caters to a broader customer base. 4. Land availability for expansion: Enables brownfield expansions, reducing cost and time associated with new projects. 5. Self-sufficiency in iron ore: Ensures input security and reduces dependency on external suppliers. 6. New infrastructure-oriented mills: Aligns with increasing demand for infrastructure, boosting relevance in the market. 7. Potential for operational efficiency: Opportunities exist to optimize costs and improve the product mix through modernized units. 8. Experienced professionals: Strong technical expertise supports superior steel production	Weakness  1. Dependence on coking coal imports: Vulnerable to price volatility and supply chain risks. 2. Aging workforce: High manpower costs coupled with lower productivity require modernization of HR policies and practices. Opportunities  1. Government initiatives: Policy emphasis on infrastructure and construction boosts steel demand. 2. Low per capita steel consumption: Room for growth as the country aligns closer to global standards. 3. Increasing domestic demand: Expanding urbanization and industrialization create long-term growth prospects. Threats  1. Rising competition: Both domestic and international players intensify the competitive landscape. 2. Green steel trends: Global focus on sustainability and decarbonization may require significant adaptation and investment. 3. Domestic production expansion: Potential oversupply could pressure prices and margins. 4. Inflationary pressures: Increased costs in raw materials and operations may challenge profitability.
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Risk Mitigation Strategies

(GRI 201-2)

- **Market Expansion and Diversification:** Strengthen our market position by exploring new growth segments, including rural markets, and driving product innovation to offer cutting-edge solutions that retains and attracts customers.
- **Accelerated Ramp-Up of New Units:** Expedite the development and scaling of new units to enhance production capacity and meet growing demand
- **Long-Term Supplier and Customer Relationships:** Secure long-term contracts with suppliers and establish strong, enduring relationships with customers to ensure supply chain stability and customer loyalty.
- **Raw Material Security and Strategic Partnerships:** Focus on the development of new mining operations and seek international partnerships to enhance the security and sustainability of our raw material supply.
- **Workforce Optimization and Professional Development:** Streamline workforce processes while ensuring the continued professional growth of employees, fostering a skilled, adaptable, and motivated workforce.
- **Regulatory Compliance and Beyond:** Adhere to all applicable regulations and pro-actively prepare for a "beyond compliance" approach, ensuring the Company exceeds industry standards and anticipates regulatory changes.
- **Community Engagement and Social Upliftment:** Conduct thorough needs assessments and invest in targeted community development programs that promote social upliftment and enhance the well-being of the communities where we operate.
- **Waste Management and Resource Efficiency:** Develop and implement strategies for the proper handling, recycling, and reuse of waste materials, minimizing environmental impact and promoting resource efficiency.
- **Adoption of Clean Technologies and Carbon Reduction:** Prioritize the adoption of clean, energy-efficient technologies to reduce CO₂ emissions and establish an internal carbon pricing mechanism to drive sustainability and environmental accountability.
- **Environmental Protection Initiatives:** Launch new initiatives aimed at environmental preservation, with a special focus on promoting greenery development and enhancing biodiversity across our operational areas.



Eco-friendly Paver Block Manufacturing Unit at ISP

These risk mitigation strategies ensure that SAIL remains resilient in the face of industry challenges, while fostering long-term sustainability, environmental stewardship, and positive social impact.

Growth Strategies

- **Strengthening Leadership through Capacity Expansion:** Consolidate and reinforce our market leadership by enhancing production capacity, ensuring we meet growing demand and maintain a competitive edge.
- **Strategic Alliances for Accelerated Growth:** Forge strategic partnerships and alliances that support our growth initiatives, leveraging synergies to expand our capabilities and market reach.
- **Securing Raw Material Supply through New Mines:** Develop and expand new mining operations to ensure a consistent and secure supply of raw materials, reducing reliance on external sources and enhancing supply chain resilience.
- **Enhancing Input Material Quality:** Focus on improving the quality of input materials, ensuring that high-quality raw materials are sourced and utilized in production, thereby enhancing overall product quality.
- **Increased Focus on Value-Added Steel Products:** Shift focus toward the production of value-added steel products, diversifying our portfolio to meet evolving market demands and generate higher margins.
- **Continuous Improvement in Operational Efficiency:** Drive continuous improvements in operational processes and productivity to enhance overall efficiency, reduce waste, and increase throughput.
- **Cost Optimization for Enhanced Competitiveness:** Implement targeted cost optimization strategies across all areas of operations, focusing on reducing costs without compromising quality, thereby improving profitability and competitiveness in the market.

These growth strategies are designed to ensure that SAIL remains at the forefront of the steel industry, consistently expanding its market position, improving operational performance, and securing sustainable, long-term growth.



GOVERNANCE AT SAIL



Corporate Governance encompasses the policies, rules, procedures, and practices through which a company is directed and controlled, aiming to maximize value for all stakeholders, including the government, investors, shareholders, customers, vendors, employees, the environment, and society as a whole. At SAIL, Corporate Governance is more than a compliance requirement; it is a core philosophy. Our commitment is rooted in transparency, ethical conduct, and robust policies that align with laws, regulations, and DPE guidelines. This approach ensures full disclosure and accountability, with the ultimate goal of enhancing shareholder value while safeguarding the interests of all stakeholders. As a responsible corporate citizen, SAIL upholds the highest standards of governance in the Country. Our Board recognizes its accountability to shareholders and prioritizes protecting and advancing the interests of the Company. Each board member is dedicated to ensuring decisions are made with integrity, fairness and professionalism.

SAIL’s commitment to trust-building and transparency enhances its reputation and strengthens stakeholder confidence. Regular and proactive communication with stakeholders across multiple channels ensures openness and accessibility.

Our Vision and Credo also plays an important role in steering our Board of Directors to conduct business in an economically, socially and environmentally responsible manner.

SAIL Board

(GRI 2-9 a, 2-27)

Our Board is at the Apex of the Governance Framework and is accountable to all the stakeholders and for protecting and furthering the interest of the Company. The Board of Directors being at the core of our corporate governance practice, is entrusted with the responsibility of management, direction, performance of the Company and ensuring that the long-term interest of the stakeholders is protected and stakeholders’ value enhanced.

The Board reviews and approves management’s strategic plans and business objectives and monitors the Company’s strategic direction. The Board of Directors functions in accordance with the powers delegated under the Companies Act, 2013, SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, Corporate Governance Guidelines issued by DPE and other guidelines issued by the Government of India from time to time, as applicable to the Company.

The robust protocols such as independent internal audit, documented policies, guidelines, procedures, regular review by Audit Committee, CAG Audit of Corporate Governance, and Independent Audit by Auditors etc. help in efficient functioning of the Board.



Board Composition, Nomination, Tenure, Competencies, Independence

(GRI 2-9, 2-10, 2-11, 2-17, 405-1)

Chairman, SAIL is the Chairman of the Board of Directors. SAIL Board is a mix of full time Executive Directors, Non-Executive Directors and Independent Directors, conforming to the provisions the Company's Act, SEBI (LODR) and DPE Guidelines. Government, being the largest shareholder, the views are taken during nomination of the Board members.

As on 31st March 2025, the Board of Directors comprised of full-time Chairman, 7 Whole Time Directors (i.e. Executive Directors) and 2 Non-Executive Directors (consisting of 1 Government Nominee Director and 1 Independent Director).

During 2024-25, the composition of the Board of Directors of the Company was not as per requirements. The appointment of Independent Directors on the Board of the Company is made by the Company based on nomination by the Government of India and the Company has requested Ministry of Steel, Government of India, for nomination of requisite number of independent directors on its Board.

SAIL being a Government Company under the control of its Administrative Ministry viz. Ministry of Steel, all the Directors of the Company viz. Whole-time, Independent Directors, Nominee Directors are appointed/ nominated by the Government of India, Ministry of Steel. The Whole Time Directors are appointed for a period of five years or till the age of superannuation or until further orders, whichever is the earliest. They are initially appointed by the Board of Directors as Additional Directors and, thereafter, by the Shareholders in the Annual General Meeting in terms of the provisions of the Companies Act, 2013.

The skills/expertise/competencies as required in the context of business and areas pertaining to the Company are identified by Government of India. Further, selection of Directors on the Board of SAIL is made by Government of India/ Ministry of Steel as per their defined procedures and rules in vogue. In this regard, details on skills/ expertise/ competence of the Directors on the Board of SAIL are mentioned in the Corporate Governance Report of the Annual Report 2024-25.

An induction cum familiarization programme for Independent Directors is organized on their appointment, where an overall view of the Company is presented to them which includes, inter-alia, details of the Organization Structure, Company's Plants & Units, Product Portfolio, Financial and operational Performance, Modernization and Expansion Programme, ESG, etc. The Company also organizes visits of the Directors to various Plants/Units of the Company for first-hand knowledge of the operations. Further, the Directors are nominated to the training programmes organized by various institutions such as DPE, SCOPE, IOD and other institutions on issues related to Corporate Governance, etc. The details of familiarisation programmes imparted to independent directors are available on the website of the Company - www.sail.co.in Besides, information regarding their roles and responsibilities at their position is also furnished to them.

As far as Independence of the Board is concerned, all the Independent Directors submit the declaration of independence, as required under the Companies Act, 2013 stating that they meet the criteria of independence and they have confirmed that they are not aware of any circumstance or situation which exists or may be reasonably anticipated that could impair or impact their ability to discharge their duties. The same has been taken on record by the Board.

The Status of number of other directorships held by each of the member of Board is provided in the Corporate Governance Report included in the Annual Report 2024-25.

Committees of the Board

(GRI 2-9b, 2-9c, 2-12, 2-13)

The details about Board Sub Committees are given in the Corporate Governance Report included in the Annual Report (Annexure-IV to the Board's Report).

The Agenda, including compliance reports of all the laws applicable to the Company, along with Explanatory

Notes is provided to the Board Members in advance. The Board Members take active part in the deliberations in the Board and Board Sub-committee meetings by providing valuable suggestions, advice and guidance on various issues related to Company's Business, thus adding value to the decision making process. Additional information as sought is provided to the members. The recommendations of the meetings of the Board Sub-committees are placed before the Board for necessary approval. As an effective post meeting follow-up system, action taken on its decisions is apprised to the Board.

For management of diverse issues, pertaining to economic, environmental and social areas, various departments regularly assimilate, compile and monitor the status reports in conjunction with the agenda papers. These reports are prepared with the valuable inputs provided by the respective Plants/Units, on the economic, environment and social performances including legal compliance and are regularly and methodically put up to the Board for examination, comments and recommendations. Senior executives at various levels have been identified for execution of these assignments. The observations of the Board are examined and analyzed by the top management and subsequently envisioned for business decision-making.

Not only the Board but specialized Committees also, led and supervised by Independent Directors having valuable and varied experience, enable our Company to have an independent perception on various governance issues before the same are considered by the Board of Directors. Some of the key committees and their objectives are as follows:

Audit Committee

The primary function is to assist the Board of Directors in fulfilling its oversight responsibilities by reviewing the Financial Reports; the Company's systems of internal financial controls and Risk management systems, Accounting and Legal compliance that Management and the Board have established; review Related Party Transactions in accordance with the Related Party Transaction Policy of the Company; and

the Company's Auditing, Accounting and Financial Reporting process generally.

Nomination & Remuneration Committee

SAIL, being a Government Company, the nomination and fixation of terms & conditions for appointment of its Directors, are made by the Government of India. However, the Company has constituted a Nomination & Remuneration Committee (NRC), in order to look into various HR issues, matters prescribed under the Companies Act, 2013 and SEBI Regulations; to finalize Performance Related Pay (PRP) for the executives of the Company in terms of DPE Guidelines on Corporate Governance for Central Public Sector Enterprises; etc.

Stakeholders' Relationship Committee

Its function is to consider and resolve the grievances of the security holders of the Company including complaints related to non-receipt of balance sheet, non-receipt of dividend, transfer/transmission of shares, etc.

Risk Management Committee

The Committee's objective is establishment of a risk management system; formulation, adoption and implementation of the Risk Management Policy; setting standards for risk documentation; to review the Enterprise Risk Management framework to assess its continuing effectiveness; to monitor emerging issues and oversee the risk management.

The Company has constituted the SAIL Risk Management Committee (SRMC) in line with the Regulations of SEBI. The SRMC is responsible for overseeing the Company's risk management framework. Its key responsibilities include: Establishing a Structured Risk Management System; Formulating, Adopting, and Implementing the Risk Management Policy; Setting Standards for Risk Documentation; Reviewing the Enterprise Risk Management (ERM) framework for continued relevance and effectiveness; and Monitoring Emerging Risk Issues and Overall Risk Governance.

Corporate Social Responsibility Committee

Corporate Social Responsibility is the Company's commitment to its stakeholders to conduct business in an economically, socially and environmentally sustainable manner, whereby organizations serve the interests of the society, by taking responsibility for the impact of their activities.

(GRI 2-12, 2-13)

During the year, besides, these mandatory Committees, various other Board Sub-Committees (BSC) are also there to strengthen the systems at SAIL.

(GRI 2-12)

S.No.	Board Sub Committee	Objective of BSC
1.	Strategic Issues & Joint Ventures Committee	To examine and recommend to the Board the issues relating to formation of Strategic Alliance(s) and Joint Ventures of the Company and review their performance.
2.	Projects Committee	To monitor and recommend to the Board the matters regarding taking up of new projects, monitoring implementation of major capital projects vis-a-vis approved plan, etc.
3.	Health, Safety & Environment Committee	To review the policy, procedures and systems on Health, Safety and Environmental matters in respect of Plants & Mines.
4.	Share Transfer Committee	To consider (i) transmission, rejection, issue of duplicate share certificate and split share certificates; and (ii) transfer of shares for which request was received before 31st March, 2019 but was rejected earlier on account of discrepancies, and resubmitted after duly rectifying the objections.
5.	Operational Issues Committee	To periodically review performance in the areas of Production, Sales & Marketing, Mines and Collieries. To review coordination amongst Plants and Central Marketing Organisation.



Visit of Director (Technical) to IISCO Steel Plant

Conflict of Interest

(GRI 2-15 a, b)

SAIL has a policy on Related Party Transaction which governs the transparency of approval process and disclosures requirements to ensure fairness in the conduct and reporting of the 'Related Party Transactions', as per the applicable laws. The Policy is applicable to the Director and all the KMPs and they are responsible for providing notice to the Company, of any potential 'Related Party Transaction' involving him/her or Relative(s), including any additional information about the transaction. The Policy establishes procedure to avoid/manage cases of conflict of interest. Link of the Policy -

https://sail.co.in/sites/default/files/2020-06/policy_for_related_party.pdf

There were no transactions by the Company of material nature with Promoters, Directors or the Management, Subsidiaries, relatives during the year, which may have potential conflict with the interests of the Company at large.

Communication of Critical Concerns

(GRI 2-16)

The various Mechanisms for communication of concerns are:

Right to Information

All the Plants and Units of SAIL comply with the provisions under the Right to Information Act, 2005(Act). SAIL has a Public Information Officers (PIO)/Assistant Public Information Officers and Appellate Authorities and Transparency Officer in each Plant and Unit under the Act for speedy redressal of the queries received under the Act. An exclusive RTI Portal has also been developed with link available on the website of the Company. All the Plants/ Units have listed 17 manuals and details of Authorities under the Act are uploaded on the website of the Company. Quarterly Returns and Annual Returns on implementation of the Act are being submitted online through the Central Information Commission (CIC) portal. SAIL received a total of 4,152 applications and 572 appeals under the act during the FY 2024-25 and all of them have been disposed of within

the time frame stipulated under the act. CIC has also taken up 31 cases and most of these cases were disposed of in favour of the Company. Since enactment of the Act, SAIL has received a total of 59,719 applications and 9,154 appeals up to 31st March, 2025, which were disposed-off within the stipulated time. Out of these, 1,182 cases were taken up by the CIC and most of these cases were disposed of in favour of the Company.

Vigil Mechanism & Whistle Blower Policy

SAIL has adopted Whistle Blower Policy of Central Vigilance Commission (CVC) and it has not denied access to any personnel to approach the Audit Committee/ Management on any issue. The Whistle Blower Policy is available on the website of the Company - www.sail.co.in. The Company has also formulated a Vigil Mechanism for conducting the affairs in a fair and transparent manner by adopting highest standards of professionalism, honesty, integrity and ethical behaviour. All employees of the Company and Directors on the Board of the Company are covered under this Mechanism. This Mechanism has been established for employees to report concerns about unethical behaviour, actual or suspected fraud or violation of Code of Conduct. It also provides for adequate safeguards against the victimization of employees who avail the Mechanism and allows direct access to the Chairperson of the Audit Committee in exceptional cases. The Vigil Mechanism has been posted on the website of the Company - www.sail.co.in.

Anti-Corruption

SAIL as an organization follows well defined systems & procedures to prevent, detect and address bribery. Steel Authority of India Limited (SAIL) has achieved the distinction of becoming the first Maharatna Public Sector unit to have implemented the Anti-Bribery Management System (ABMS) across all its Plants/units. ABMS is a Management System that is designed in line with ISO 37001:2016 to help an organization prevent, detect and respond to bribery. The Anti-Bribery Management Policy (Vision Statement) of SAIL is available at weblink: https://sail.co.in/sites/default/files/Comp_policies/2022-04/ABMS.pdf

Evaluation of the Performance of Board

(GRI 2-18a,b,c)

The appointment of Functional Directors as well as Part Time Non-Official Directors (Independent Directors) on the Board of SAIL is made based on nomination / appointment by Government of India. The terms & conditions of appointment as well as tenure of all Directors are also decided by GOI and there is a well laid down procedure for evaluation of Functional Directors and CMD by the Administrative Ministry.

As per the Companies Act, 2013, the Nomination and Remuneration Committee (NRC) shall identify persons who are qualified to become directors and who may be appointed in senior management in accordance with the criteria laid down, recommend to the Board their appointment and removal and shall specify the manner for effective evaluation of performance of the Board, its committees and individual directors. The evaluation is to be carried out either by the Board, NRC or by an independent external agency and NRC shall review the implementation and compliance of the evaluation system. Further, Regulation of SEBI (LODR) 2015 and the Code for Independent Directors under the Companies Act, 2013 requires the performance evaluation of Independent Directors to decide their continuance or otherwise. The Ministry of Corporate Affairs (MCA) has notified exemptions to Government Companies from certain provisions of the Companies Act, 2013 which, inter-alia, provides that appointment, performance evaluation and remuneration shall not apply to Directors of Government Companies.

Remuneration Policies

(GRI 2-19, 2-20)

The details of remuneration to Whole Time Directors for FY 2024-25 are given in the Corporate Governance Report included in the Annual Report. The salary of the Whole Time Directors is governed by Pay scales and Rules issued by the Department of Public Enterprises. No variable incentive is being paid to the Directors

except Performance Related Pay (PRP), paid to them on annual basis as per DPE Guidelines. No Bonuses, severance fees and Stock Options were paid during the FY 2024- 25.

The Non-Executive Directors (other than Government Nominee Directors) are paid only sitting fee for each Board/ Board Sub-Committee/ Meeting attended by them. The sitting fee of ₹30,000/- for each Board Meeting attended and ₹25,000/- for each Board Sub-committee Meeting and Independent Directors Meeting attended is paid, as approved by the Board of Directors in its 485th meeting held on 31st January, 2022.

Annual Total Compensation Ratio

(GRI 2-21)

The ratio of annual total compensation for the organization's highest paid individual to that of Median annual total compensations for all the organization's employees excluding the highest paid individual is 4.023, whereas the ratio of percentage increase in annual compensation for the organization's highest paid individual to that of median percentage decrease in annual total compensation for the organization's employees excluding the highest paid individual is 2.043 for the reporting period.

Remediation of Negative Impacts

(GRI 2-25)

A Stakeholders' Relationship Committee is functioning to consider and resolve the grievances of the security holders of the Company including complaints related to non-receipt of balance sheet, non-receipt of dividend, transfer/ transmission of shares, etc.

There was no complaint pending for redressal as on 31st March, 2024. Number of shareholders' complaints received during the year from 1st April, 2024 to 31st March, 2025 was 11. All the 11 complaints were resolved and no complaint was pending for redressal as on 31st March, 2025.



Secretary Steel Visit to BSP

Grievance Redressal Mechanism

(GRI 2-26)

Effective internal grievances redressal mechanism has been evolved and established in SAIL Plants and Units, separately for Executives and Non-executives. Joint grievance committees have been set up at Plant / Unit level for effective redressal of grievances.

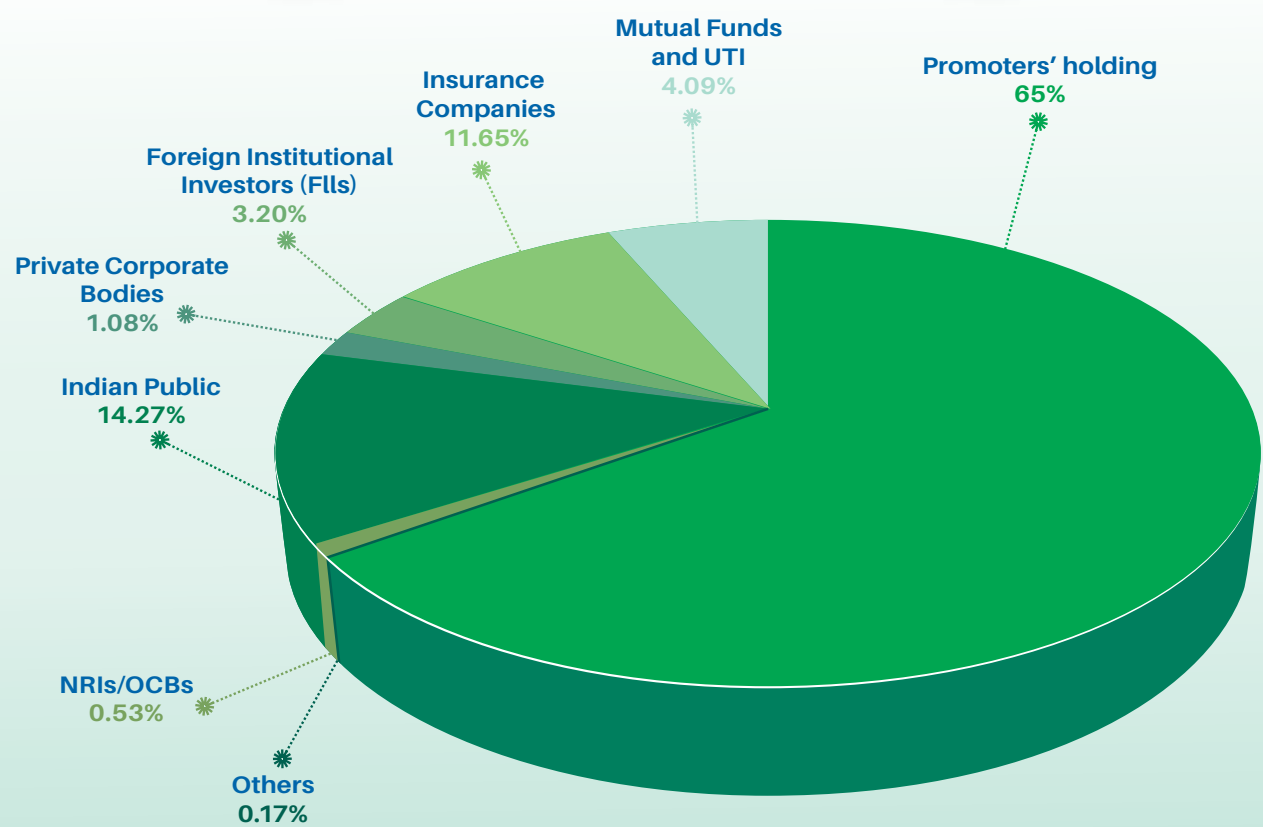
SAIL Plants/Units are maintaining grievance handling mechanism and employees are given an opportunity at every stage to raise grievances relating to wage irregularities, working conditions, transfers, leave, work assignments, welfare amenities, etc. Majority of grievances are redressed informally in view of the participative nature of environment prevailing in the Steel Plants/Units. The system comprehensive, simple

and flexible and has proved effective in promoting harmonious relationship between employees and management. 206 staff grievances were received during the FY 2024-25 and with 32 grievances were pending from previous year, 228 staff grievances have been disposed of during the year, achieving 96 % fulfillment and leaving 10 grievances outstanding at the end of FY 2024-25. Further, during FY 2024-25, 857 grievances were received under Centralized Public Grievance redressal and Monitoring System (CPGRAMS), a national level online system managed by department of administrative reforms and Public Grievance (DARPG), Government of India.

The Status of Grievances received and disposed from 1st April, 2024 to 31st March, 2025 is as under:

S.No.	Particulars	Received (including Brought Forward)	Disposed	Pending as on 31st March, 2025
1.	Public Grievances	742	722	20
2.	Appeals	115	102	13
	Total	857	824	33

Shareholding Partner



Board of Directors

As on 20th August, 2025

CHAIRMAN AND MANAGING DIRECTOR



**Shri
Amarendu
Prakash**
Chairman and
Managing Director

GOVERNMENT DIRECTORS



**Shri
Ashish
Chatterjee**
Additional Secretary
& Financial Advisor,
Ministry of Steel,
Government of India



**Shri
Abhijit
Narendra**
Joint Secretary,
Ministry of Steel,
Government of India

INDEPENDENT DIRECTORS



**Dr. Gopal
Singh Bhati**



**Dr. Anju
Bajpai**

INDEPENDENT DIRECTORS



**Shri Manjeet
Kumar Razdan**



**Shri Pranoy
Roy**



Policies at SAIL

(GRI 2-23, 2-24)

The Company has well established and documented policies and procedures, which are adhered to for transparent, efficient and ethical conduct of business and for safeguarding its assets, prevention and detection of frauds and errors, accuracy and completeness of the records and disclosures. Policy and Strategy formulation is a well-structured process guided by Company's Vision and Credo. The basket of policies that are available on

SAIL website include Policies on Anti-Bribery Management (Vision Statement), Enterprise Risk Management, Corporate Social Responsibility, SAIL Mediclaim Scheme For Retired Employees, Inter Plant Standardization in Steel Industry (IPSS), Safety, Quality, Corporate Environment, Human Resource, HIV/AIDS, Information.

The policies on Human Resource, Occupational Health and Safety, Communication, Maintenance, Township, Energy Management and Social Accountability, etc. at the Plant level also promote concept of transparency and accountability.



Enterprise Risk Management (ERM)

SAIL has implemented a robust and comprehensive Enterprise Risk Management (ERM) Policy, approved by the Board, to ensure effective governance and risk management aligned with regulatory frameworks, including the Securities and Exchange Board of India (SEBI) Listing Obligations and Disclosure Requirements (LODR) Guidelines and the latest amendments to the Companies Act, 2013. These regulations reinforce SAIL’s commitment to strong governance and effective risk management.

The primary objective of the ERM Policy is to systematically identify, assess, mitigate, and monitor risks to protect the company’s financial health, operational performance, and strategic goals. The policy offers a structured approach to managing financial, operational, strategic, and compliance risks across all business units. It also addresses specific risks related to Environmental, Social, and Governance (ESG) issues, IT and cybersecurity, as well as sustainability.

Regular risk reports are prepared and reviewed by the Risk Management Committee and the Board, ensuring that emerging risks are promptly communicated. The

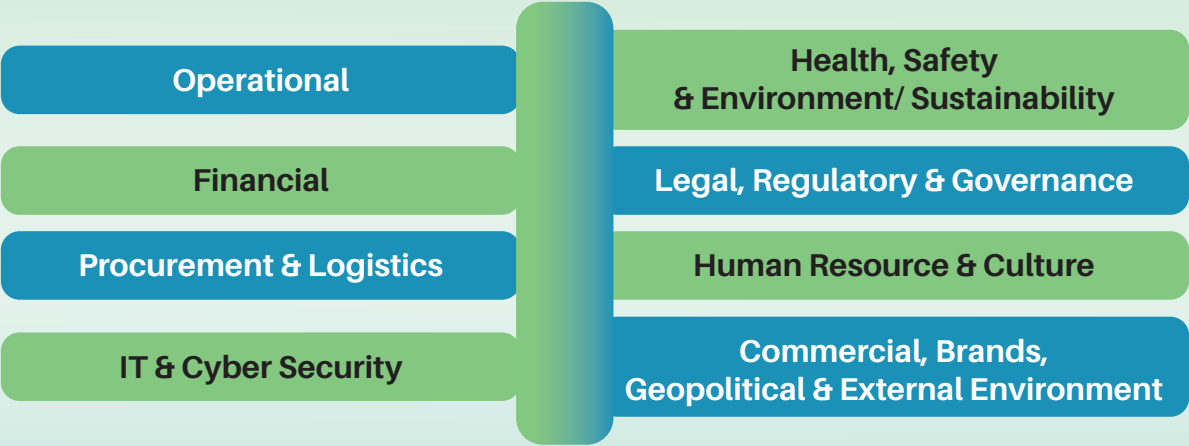
policy is dynamic and is subject to periodic reviews and updates to remain in line with evolving regulatory and business conditions.

SAIL’s ERM framework is supported by a multi-tiered organizational structure where each Plant or Unit identifies and manages its own risks. Risk Owners or Risk Champions are designated to oversee risk identification and mitigation strategies. These individuals are accountable for ensuring effective risk management practices are followed.

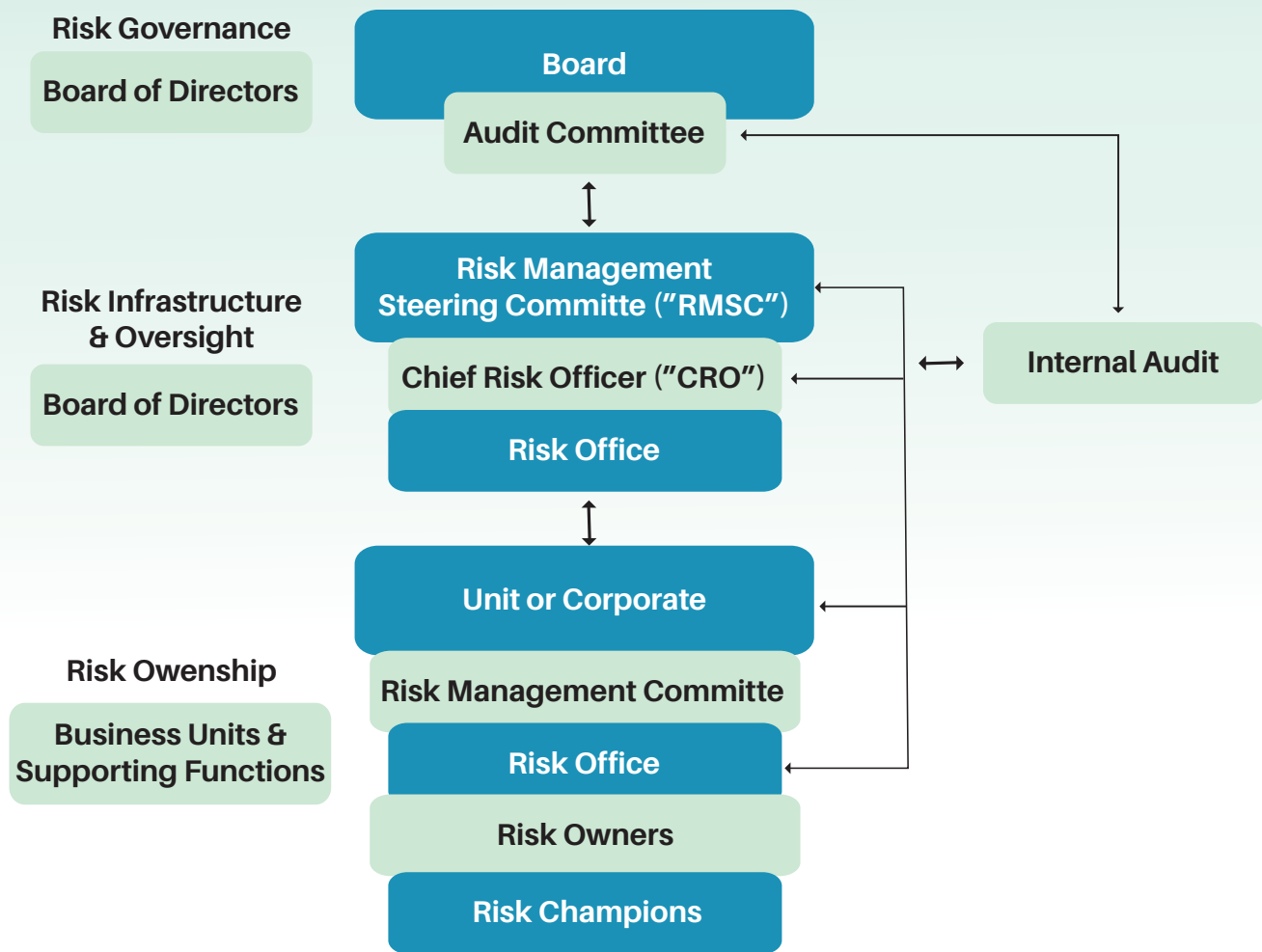
The Risk Management Committees (RMCs) at the Plant and Unit levels review and report risks to the Chief Risk Officer (CRO), who escalates critical risks to the SAIL Risk Management Committee (SRMC). The SRMC is responsible for developing, monitoring, and evaluating the risk management framework, ensuring its ongoing effectiveness.

In accordance with the Companies Act, the Board ensures the development and implementation of a comprehensive Risk Management Policy. Additionally, the Audit Committee evaluates the adequacy and effectiveness of the risk management systems, promoting continuous improvement across the organization.

Risk Management at SAIL



Governance Structure of Risk Management at SAIL



Digital Initiatives at SAIL

Regulatory Compliance and Governance

SAIL acknowledges that robust regulatory compliance is not only a legal obligation but also a strategic advantage in building stakeholder trust and long-term business sustainability. The company is committed to full adherence with applicable standards, regional regulations, and recognized industry best practices across all operational domains.

We strive to ensure consistent compliance, by monitoring the evolving regulatory landscape, including changes in legal frameworks, industry guidelines, and emerging risks, to proactively address changes in compliance requirements.

Regular internal audits, supplemented by independent external assessments, are conducted to evaluate the effectiveness of compliance mechanisms. These audits help identify potential gaps, reinforce accountability, and drive continuous improvement.

By embedding compliance into our operational framework, SAIL not only aims to safeguard stakeholder interests, mitigates legal and reputational risks but also strengthens its position as a responsible and future-ready enterprise ensuring ensure long-term value creation for all our stakeholders.



Digital Transformation: Driving Sustainable Steel Production

In today's increasingly regulated and sustainability-conscious business environment, organizations face growing pressure to transparently disclose their environmental, social, and governance (ESG) performance. Corporate sustainability reporting is no longer a voluntary practice but a strategic necessity.

At SAIL, digital transformation is reshaping how we produce steel—more efficiently, transparently, and sustainably. Different Plants/Units of SAIL are taking their own individual steps in the area.

As one of the most energy-intensive industries, the steel sector faces unique challenges in reducing environmental impact. Through the strategic adoption of digital technologies, we are making meaningful progress toward decarbonisation and sustainable value creation. Carbon emissions reported in the World Steel Association format is based on the data retrieved from the SAP system of our Plants.

We have reduced unplanned downtime by cutting energy waste and extending equipment lifespan by using IoT-enabled predictive maintenance. At DSP, a system has been implemented for capturing data from 253 IoT sensors installed in gear boxes in MSM to capture tri-axial vibration, temperature and acoustics.

Based on the parameters captured, the health of the motors is determined and necessary alerts through SMS are sent to the user. Measurement of real time values of parameters such as CO gas and RLNG consumption at Boiler house, DSP Coke Oven gas inlet, BBM soaking pit, Forge shop furnaces, SMS and CCs at Fuel Control Room has been achieved throughout the Plant through Plant network.

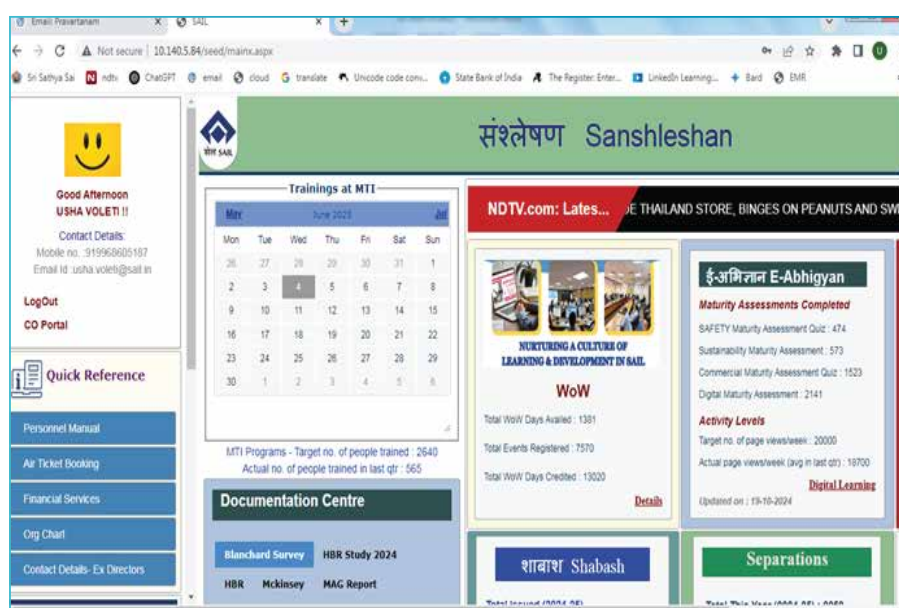
In the context of digitalization bringing about transformation in an enterprise, the in-house development of IT software has emerged as a critical enabler of effective, reliable, and customized sustainability reporting offering advantages like customization and flexibility, seamless Integration with Internal Systems, Cost Efficiency over time and support for Continuous Improvement. SAIL also has a strong in-house software development team which has implemented many state-of-the-art systems to enhance operational efficiency and innovation.

Digital Systems and Process Automation across SAIL Units

Corporate Computer & Information Technology (C&IT) Division plays a pivotal role in driving digital transformation and IT enablement across the organization and is responsible for planning, developing, and implementing enterprise-wide IT strategies and systems.

Some more Digital initiatives

- An end-to-end Online Vigilance Clearance System for PESB applications has been deployed, facilitating seamless processing—from request submission to final clearance generation—for both HR and Vigilance officers.
- Online Complaint Registration on the SAIL website, secured through SMS-based OTP verification.
- 'Suvidha' – an enhanced Vigilance system integrated with an FSA data bank, RDA complaint mapping, and analytical tools.
- Two-Factor Authentication introduced in the Annual Immovable Property Return (AIPR) system for strengthened data security.
- Web-based Dashboards for real-time status monitoring.
- The launch of 'Sanshleshan', an HR Dashboard for executives, showcasing schemes like 'WoW' and 'Shabash'.
- Upgradation of the SAIL appraisal system for middle management, aligned with PESB guidelines.



Additionally, SAIL-ISP has introduced a dedicated Anti-Encroachment Portal, enabling digital reporting and tracking of encroachments related to land, quarters, and non-residential buildings. SAIL Plants and Units are actively adopting digital systems to enhance security, transparency, and operational efficiency. Several locations have implemented online systems for Gate Pass management, biometric-based entry and exit, vehicle request processing, and medicine stock tracking.

Health-related services have also been digitized at many sites, where employee health assessments and medical records are now maintained online. This enables SAIL doctors to monitor employee wellness more effectively, while individuals can securely access their health records through the HRIS login.

SAIL Management Training Institute (MTI) is its apex

training and development centre located in Ranchi, Jharkhand. Established with a vision to foster leadership, innovation, and organizational excellence, MTI plays a pivotal role in building managerial and technical capabilities across the company's diverse workforce. MTI actively supports SAIL's sustainability goals by - Promoting a culture of safety, innovation, and ethical governance, integrating sustainability concepts and ESG awareness into leadership and functional training programs and fostering employee well-being and inclusive growth through learning and development. Last year MTI has upgraded the Online Training Management System which has reduced the overall turnaround time for the Academic Programme and helped the faculty members immensely in obtaining and analysing training data. Further, usage of AI tools for creating Multimedia Training Content has been introduced and Facilitating Online Sessions

through LMS using Webex Integration has also been done.

SAIL, as a large organization with plants and offices spread across the Country, has made significant strides in digital integration. SAP has already been implemented at seven key locations. The organization is now extending this integration to additional sites. The Chandrapur Ferro Alloy Plant (CFP) had been successfully integrated with the Bhilai SAP instance. Now, CFP has mapped and configured all salient modules in BSP's SAP instance SAIL. After the administrative integration of Odisha Group of Mines (OGM) with RSP, SAP PP/MM/FICO and SD modules have been extended to OGM mines. Use of SAP ERP system based occupational health module for health surveillance of employees is also being done. Similarly, JGOM has been brought under the Bokaro SAP instance, and efforts are currently underway to integrate the collieries as well. This was achieved after extensive networking has been implemented at all the locations of JGOM (Jharkhand Group of Mines) & Collieries. The IT infrastructure at JGOM and collieries has been strengthened with adequate number of PCs and connecting them over network. All the IT applications of BSL (Bokaro Steel Plant) are accessible from JGOM & Collieries. This demonstrates our commitment to include our remote locations under the common IT umbrella.

CET (Centre for Engineering & Technology) has implemented online drawing approval system in Electronic Drawing and Document Management System (EDDMS) which is a great step towards paperless office and has eliminated the need of physical copies of drawings for the ongoing projects.

As part of our broader digital transformation and sustainability strategy, SAIL is continuously integrating secure online payment gateway into our financial systems. This initiative is aimed at streamlining financial operations, reducing paper-based transactions, and enhancing transparency—all the while supporting our environmental goal of reduced carbon footprint and governance objectives. The integration of our payment gateway is more than a technological upgrade—it is a strategic step toward sustainable, efficient, and responsible financial operations. This year also some of our locations have

integrated the SAP module with the SBI's e-payment gateway.

Resource Optimization

As part of our commitment to corporate sustainability, SAIL has prioritized the integration of information technology (IT) to enhance resource efficiency across our operations.

Our Plants/Units have harnessed the power of digitization and have optimised the utilization of resources to the most optimum levels by playing a key role in data driven decision making and process optimization of both legacy and SAP systems.

Various SAIL locations have taken initiatives at their end like the use of BoTs for alert generation, Vehicle tracking systems, Visitor pass systems, Drone based Security Surveillance System (DSSS), Enabled printing of QR code as per QCI requirement, SMS alert on arrival of rake to minimize demurrage, Slab Profiling System for Optimizing Yield and Minimizing Defects in Plate Mill, Cylinder tracking in MM stores. Coke belt weighing management system- Helps in balancing coke consumption. Conveyor Belt Pully Condition Monitoring for critical belts at BF5- Reduce unscheduled downtime by early detection of pulley/bearing failure and scheduled maintenance.

Development of Integrated dashboard for Water Management where Real time water flow data is recorded using Flow meters installed at industrial Water Take Over points of all the major shops. The system Displays tank level and water consumption of Industrial Water by different shops., System implemented to randomly propose sample bags for inspection in the case of minor raw materials. A mail with information of random sample bags to major stake holders bringing about transparency and reliability in sample selection is triggered automatically.

Incident management System- Incident Management System is developed as a centralized platform to handle unexpected disruptions in IT services, operations, or IT security. This system helps us to log and track incidents in real time, assign and escalate issues based on severity, maintain audit trails for accountability and generate reports and analytics for performance improvement.

Dashboard for Raw Material Management which displays the real-time visualization of key data: Lump & Fines Production/Dispatch, Plant Production (Hot Metal, Sinter), Stock, and Rake Avg. and related planning and transactional reporting has been implemented.

We have tremendously reduced paper consumption and shortened process cycle times by digitizing and automating workflows—from procurement to reporting. We have created Customer Code through SAP with various levels of workflow approvals and integrating with SAP Document management system.

SAIL shall invest in AI-driven resource planning tools, digital twins for operational modelling, and block chain for sustainable supply chain management. Our IT strategy is not just about innovation—it's about

using technology to create long-term value for people, planet, and profit.

Data Security

In the digital era, data security is no longer just an IT concern—it is a critical component of corporate sustainability. As businesses like those in the steel sector increasingly rely on digital systems for operations, logistics, monitoring, and compliance, safeguarding data becomes essential to ensuring long-term resilience, stakeholder trust, and sustainable performance.

SAIL recognises the criticality of data security and is regularly taking initiatives in this direction and has ensured that there have been no information security breaches in the FY 2024-25.



Digital Transformation Workshop at Ranchi

Customer Experience

SAIL being a responsible and forward-looking steel production company is committed not only to product quality and environmental responsibility, but also to delivering a superior and sustainable customer experience. In today's interconnected and competitive global market, customer expectations extend beyond product delivery—they encompass transparency, service quality, responsiveness, digital accessibility, and long-term value creation. We recognise customer experience (CX) as a key component of social and economic sustainability and believe that a positive customer experience promotes trust, long-term partnerships, and brand loyalty—all of which are critical to sustained business success.

SAIL Plants/Units have implemented various such systems at their individual locations. Some of these include Real Time Wagon Tracking by Customers, Internal Customer Satisfaction Portal (ICS-Online). In this portal, the Suppliers & Customers data of the agreed parameters are populated online and a monthly Score & Report of each Customer is generated automatically. Order Booking Scheme for the new prospects, Spot Bidding for Door Delivery, automation of Transportation Bill for Material Returns is also part of this system.

A System has been developed at Bokaro for on roll and ex-employees for management of the higher pension scheme demand letter processing. This system enables employees to track the status of the application from start to submission to the EPFO office. A System has been developed for order compliance for customer as well. This provides comprehensive order visibility to the customers and can be scaled for other units as well. Real time online display of Rail dispatch on for CMO branches, DSP Grahak Sampark mobile app has been introduced for field executives to record the customer contact details.

Energy Efficiency

In recent years, we have undertaken significant initiatives to optimize energy consumption across all levels aiming to reduce both our environmental footprint and operational costs. Our shift to cloud-based infrastructure significantly reduced the need for on-premise servers and energy-intensive data centres. This transition resulted in decrease in IT-related carbon emissions, while also enhancing system resilience and scalability. Virtualization technologies enabled us to consolidate workloads, lowering hardware

requirements and optimizing performance per watt. At BSP, Super dome servers for SAP have now been replaced with energy-efficient, light weight servers. At CMO, power requirement at data centres has been reduced by about 60% through implementation of more energy efficient systems. All ISPs have started the use of 24x7 continuous emission monitoring systems for process stacks with data transmission to SPCB and CPCB online servers and the use of 24x7 continuous effluent monitoring systems for outfall discharge with data transmission to SPCB and CPCB online servers. Initiatives have been taken for enhancing energy efficiency by displaying real time gas control parameters online. Old PCs at SAIL-CET have been replaced with new desktop computers confirming to highest energy efficiency ratings like SSD drives, Energy Star rating, RoHS compliance, TCO 9.0, EPEAT Gold etc.

Digital/ IT Initiatives In Safety

At SAIL, workplace safety is not only a critical component of employee well-being but also a cornerstone of **corporate sustainability**. Ensuring a safe work environment directly impacts long-term operational efficiency, environmental stewardship, and social responsibility—all of which are integral to sustainable business practices.

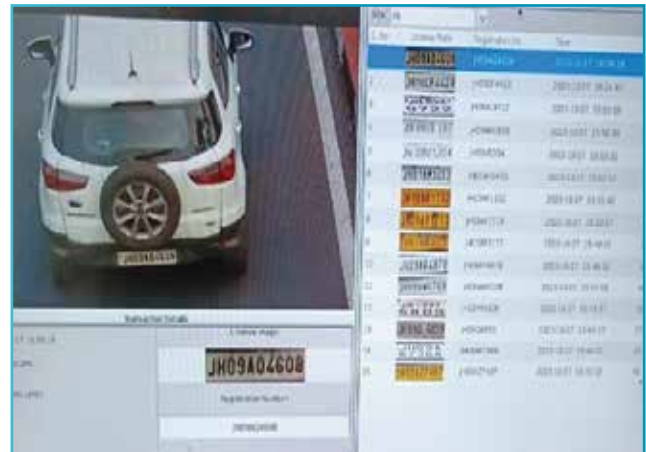
Digital safety initiatives leverage advanced technologies to enhance workplace safety, reduce risks, and ensure compliance with regulations. Innovative tools and approaches have been introduced in SAIL to bolster safety protocols throughout the workplace.

A few of the new initiatives implemented across Plants/Units include:

- Safety dashboard has been developed for monitoring Behavioural Interventions, Standards & Procedures, Near Miss & other incidents, Incident Investigation etc. All this information is uploaded in web-portals with in-depth analysis for the benefit of all employees.
- AR/VR-based simulator training equips heavy equipment operators with the skills, confidence, and situational awareness they need—without exposing them to real-world risks. It enhances safety, efficiency, and sustainability, making it a strategic investment for steel production companies striving toward digital transformation and corporate sustainability. At SAIL also AR/VR have been set-up for simulator based training (in EOT cranes, dumper/heavy equipment etc.).



- Online health monitoring of conveyors using machine learning.



- Analysis of Near Miss Cases w.r.t common causes as well as specific Plants/ Deptts-wise conducted using Open-Source Artificial Intelligence (Meta AI & ChatGPT) tools and analysis report shared with plants & units for needful action.
- Nayi Seekh: Animated Safety Films developed by SAIL Safety Organization with a view to enhance learning with case-specific animations, to be used for training and awareness of the working personnel.



- Intelligent Biometric door installed to restrict
- Intelligent Biometric door installed to restrict any intruder.
- Digital barricading has been implemented for restricted entry.
- Speed monitoring cameras within plants with ANPR (Automatic Number Plate Recognition) system-

ANPR is a valuable tool for keeping a check on speed of vehicles plying inside the plants. ANPR can help to reduce the risk of accidents, improves traffic flow, and strengthens perimeter security—all key components of a safer and more sustainable industrial operationary intruder.



- E-learning modules on different aspects of safety have been developed to enable the employees to upgrade their knowledge.
- Use of drones (for inspections of roof top, chimneys etc.)
- System implemented at DSP for use of Continuous Ambient Air Quality Station (CAAQS) for monitoring and digital display of AAQ parameters.
- Safety related electronic newsletters/ magazines, publications etc. are brought out periodically which give wide range of useful information pertaining to Safety & Health from experts from the steel industry.



VIGILANCE AT SAIL





(GRI 3-3, 205-1, 205-2, 205-3)

SAIL has strategically implemented a robust framework of Policies, Rules, and Mechanisms to combat corruption and bribery within the organization. The Company has established dedicated Vigilance Departments across all Plants/Units to execute preventive and punitive functions. The primary objective is to cultivate an environment fostering employee integrity, efficiency, and transparency; while adhering to the highest ethical standards as outlined in the GRI Standards.

To ensure the prevention of corruption, the Vigilance Department meticulously scrutinizes all operations of SAIL. SAIL Vigilance team, comprising approximately 140 employees, is led by a Chief Vigilance Officer appointed by the Central Government on a tenure basis. Operating independently, the Chief Vigilance Officer reports directly to the Central Vigilance Commission, focusing on aspects related to corruption.

The ethical conduct of all executives is governed by the Conduct, Discipline, and Appeal (CDA) Rules, prescribing a code of Conduct/Misconduct. Simultaneously, non-executive workmen are guided

by the Code of Conduct/Misconduct specified in the Standing Orders of respective Plants/Units of SAIL. An essential document and approach, the Integrity Pact, covers all contracts/procurements with a value of ₹20 Crores and above and tenders related to handling contracts in CMO departmental warehouses, irrespective of the threshold value. Guidelines for prohibiting business dealings with bidders / contractors / agencies dealing with SAIL are integral to the Integrity Pact, emphasizing appropriate action against signatories found involved in unethical practices, including corruption and bribery.

SAIL's meticulous approach extends to detailed procurement guidelines, emphasizing equity, fairness, accountability, and compliance with directions issued by the Central Vigilance Commission. The Purchase/Contract Procedure delineates steps to be followed from raising the indent to making payments on a first-in, first-out basis. Transparency in the price discovery process is ensured through Reverse Auction guidelines, and a Standard Bidding Document promotes uniformity in processing Turnkey Projects. The 'SAIL Tenders' website acts as a centralized hub, providing relevant information on tenders floated by SAIL.



In adherence to directives from the Central Vigilance Commission (CVC), SAIL has identified sensitive areas and posts within the organization. Executives in these sensitive posts for over three years undergo annual rotations, aligning with the principles outlined in the GRI Standards.

The SAIL Board undertakes half yearly / Quarterly review of all the Vigilance Activities of SAIL and also yearly review of ABMS related activities. The SAIL Vigilance Manual, Quality Policy, ABMS Policy, ABMS Manual etc. are readily available to all the employees through SAIL Intranet. Further, the ABMS Policy is available on the SAIL website i.e. www.sail.co.in and www.sailtenders.co.in for the information of the employees, business partners, customers, vendors and stake holders.

Further, information on Guidelines on Banning of Business Dealings and a list of Agencies (being updated on a regular basis) which have been banned is also displayed on www.sailtenders.co.in.

SAIL Vigilance, which is ISO 9001:2015 certified, undertakes several Preventive/ Participative Vigilance activities to prevent corruption in all the operations of SAIL; inter-alia including:

- Conducting Surprise Checks/File Scrutiny/Joint Surprise Checks in various areas
- Identification of Thrust Areas and focussing Vigilance activities towards these areas
- Undertaking Intensive Examinations and System Improvement Projects in various Plants / Units of SAIL
- Coordinating with Central Bureau of Investigation and other Central Agencies in anti-corruption matters
- Conducting training and awareness programmes to sensitize officials
- Periodically publishing SAIL Vigilance journal
- Laying emphasis on updation of existing systems & procedures
- Ensuring Job rotation in Sensitive areas
- Giving Preventive & Administrative recommendations on case to case basis as per requirement
- Handling of movable and immovable property returns with respect to executives
- Providing Vigilance Status / Clearance for various purposes like Promotion, completion of Probation period, final settlement of dues for Superannuation, conferment of Award, selection for PESB posts, etc.
- Monitoring the implementation of Integrity Pact
- Maintaining List of Officers of Doubtful Integrity and an Agreed List of suspect officials
- Laying emphasis on technology leverage for increasing e-tendering and e-payment etc.



Gram Sabha Conducted during Vigilance Awareness Week, 2024

To bring uniformity and clarity regarding acceptable modes of lodging complaints and processing of the same, a complaint handling policy for SAIL Vigilance has been implemented from January 2022. The complaint handling policy of SAIL Vigilance seeks to ensure that complaints about corruption, malpractice or misconduct by officials of SAIL are received, recorded and acted upon in a manner consistent with the complaint handling policy of CVC. Now, the complainants can also lodge Vigilance related complaints through SAIL Website – www.sail.co.in.

SAIL follows a very effective channel of Whistle Blower Mechanism, which establishes comprehensive protection for reporting persons. The Government of India has authorized the Central Vigilance Commission (CVC) as the designated agency to receive written complaints for disclosure on any allegation of corruption or misuse of office and recommend appropriate action under the Government resolution “Public Interest disclosure and Protection of Informer”, which is also known as “Whistle Blower Resolution”. In addition, the Chief Vigilance Officers of the Ministries or Departments of the Government of India are also authorized as designated authority to receive written complaint or disclosure of any allegation of corruption or misuse of office by any employee of that Ministry or department.

Complaints under the Whistle Blower Resolution are received by Central Vigilance Commission (CVC) / concerned Ministry of the Government of India; and the relevant complaints are forwarded to SAIL for investigation after duly concealing identity of the complainant. The objective of the Whistle Blower Mechanism is to provide necessary safeguard for protection of employees from reprisal or victimization.

In addition to the above, the Vigilance Department also provides inputs on existing systems to respective administrative authorities for ensuring greater transparency. Thirteen cases were taken up for Intensive Examination during the year at different Plants/ Units. During these Intensive Examinations, high value procurement/ contracts are scrutinized comprehensively and necessary recommendations

are forwarded to concerned departments for implementing suggestions for improvement.

The Vigilance Department receives and investigates complaints as per guidelines of CVC. During the year 2024-25, 674 complaints were received in SAIL Vigilance and 621 complaints were disposed off (including carry forward complaints from 2022-23); out of which 101 complaints were found anonymous/ pseudonymous, 212 complaints were forwarded to other departments, 185 complaints were closed as the allegations had no vigilance angle/ were not substantiated, 89 complaints were closed with preventive / administrative recommendations whereas regular departmental actions were initiated in 34 complaints against 56 employees. A total of 2224 surprise checks/file scrutiny were conducted by Vigilance Department in the vulnerable areas/departments of different Plants/Units.

In the year 2024-25, 234 vigilance awareness workshops/ trainings were organized at different Plants/ Units, covering 5,271 participants to create awareness among the employees on aspects such as Whistle Blower Policy, PIDPI, Purchase/Contract Procedures, Preventive Vigilance, Conduct and Discipline Rules, Common Irregularities, System and Procedures followed in SAIL etc.

With reference to the Vigilance Awareness workshops as mentioned above, it is noteworthy that during the FY 2024-25, 25 dedicated two-day Preventive Vigilance training programs (as per guidelines of CVC and MoS) were organized wherein a total of 521 mid-level executives and fresh entrants of SAIL were covered.

As a part of maintaining regular interaction with Additional Chief Vigilance Officers (ACVOs) who head Vigilance Departments at Plant / Unit level, CVO conducted regular review meetings known as ACVO Meets. During the meetings, performance of SAIL Vigilance was reviewed. Presentations on case studies / other vigilance related matters were made by different Plants/ Units which would ensure adoption of good practices / procedures by all.

SAIL Vigilance mainly focuses on Preventive Vigilance and brings out many systemic improvements to curb the malpractices/irregularities. During last one year some of the important systemic improvements brought are:-

- Every year, as per the guidelines of Central Vigilance Commission, Vigilance Awareness Week is observed in SAIL. This year, the week (from 28th October to 4th November 2024) started with administering the Integrity pledge and reading out of messages of dignitaries at SAIL Corporate Office and all other Plants/Units of SAIL. During the week, workshops/sensitization programmes, customers meet, events like quiz, essay, slogan & drawing/poster, debate competition etc. were organized for SAIL employees. As outreach measures, various events like Speech/Oratory competition, Essay/Slogan competition etc were organized for School / College students in SAIL townships.
- A Two-day workshop on the topic '360° Vigilance: Preventive Vigilance Strategies, Proactive Vigilance, Investigation Techniques & Complaint Management' was organized SAIL vigilance at MTI, Ranchi.
- A Talk on 'Cyber hygiene & Security' by subject matter expert.
- Vigilance awareness programmes/ preventive vigilance programmes almost all Plant/Unit locations covering around 800 employees.
- Essay/Slogan/Quiz/Debate/Elocution programmes at various locations of SAIL for SAIL employees wherein around 1400 employees participated.
- Various programmes for Children also organized at various schools/colleges at various Plant/Unit locations wherein around 2500 school/college students participated.
- Awareness programmes also organized through Gram Sabha's at various locations in which around 780 persons participated.
- Interactive sessions on PCP, GeM, CDA Rules, Planning, Contracts Management held for employees in which 800 participants got benefitted.
- 'Inspiration-Prerna', an in-house publication of SAIL Vigilance is being published regularly.

The above publication contains case studies and informative articles to enhance awareness of the readers.

- During the Vigilance Awareness Week 2024, two books namely "DOs and DON'Ts" in printed form and the e-magazine "Preventive Measures" were launched by Vigilance Commissioner Shri A. S. Rajeev. Further, a Compendium of Case studies of vigilance cases of the recent times was also launched during the VAW 2024.
- In another Participative Vigilance initiative taken up by Vigilance, Ethics Club and Ethics Circle activities were undertaken in different Plants / units of SAIL during the FY'2024-25. In order to propagate ethical behavior in the society at large, Ethics Clubs had been formed in the schools of SAIL Townships at various Plants / Units with the belief that it is essential to create a strong ethical and moral foundation for children to facilitate formation of an ethically sustainable society. On the similar lines, Ethics Circles have been formed in SAIL Plants / Units for its employees to discuss matters / issues related to corruption, honesty, integrity in organization.
- The concept of Learn from Each Other (LEO) Workshops has been started in SAIL Vigilance with the aim of arriving at result oriented solutions in common areas where complaints are being received in various Plants / Units and also to standardize the functioning of Vigilance. The LEO workshops provide a platform for Vigilance executives from SAIL Plants/units as well as other PSUs to collaborate with each other on carving out new paths to take on the challenges of various important topics pertinent to Vigilance. The main takeaways from these workshops are also submitted to Higher Management for further necessary actions. During the Financial year 2024-25, two LEO workshops were organized. One titled, 'Receipt, Sampling, Testing, Acceptance, and Accounting of Ferro Alloys', was held at ISP, and the other on the topic 'Preparation of Charge Sheets', was organized at RSP Participants in the LEO workshops were Vigilance Officers from various Units of SAIL Vigilance and officers from other organizations.



BEYOND DIALOGUE: STAKEHOLDER SYNERGY & MATERIALITY AT SAIL



(GRI 2-29, 3-1)

Forging Connections, Shaping Priorities, Powering Progress

"Stakeholder engagement is not a one-time event—it's a continuous conversation."

— AccountAbility (AA1000SES)

At SAIL, stakeholder engagement is more than just outreach—it's the backbone of our sustainability vision. We believe that the path to inclusive and resilient growth is co-created through continuous collaboration, deep listening, and proactive response. By weaving stakeholder insights into the fabric of our strategy, we not only strengthen trust but also unlock shared value and innovation across our ecosystem.

Engagement with stakeholders is not treated as a compliance requirement, but as a core business practice. By listening to diverse voices—from employees and suppliers to communities, regulators, and investors—we ensure our decisions are informed, balanced, and resilient. This participative approach strengthens our social license to operate and enhances our ability to innovate responsibly in a rapidly evolving industrial landscape.

Stakeholder Synergy & Materiality at SAIL: Co-Creating a Sustainable Future

"Sustainability is a dialogue, not a declaration—where every voice counts, and every concern becomes a catalyst for progress."

At SAIL, stakeholder consultation is a cornerstone of our materiality assessment process—ensuring that diverse perspectives are not only heard but meaningfully integrated into our strategic direction. Our engagement approach is both dynamic and

inclusive, designed to foster strong partnerships and proactively respond to the evolving priorities that shape our business and sustainability journey.

We engage constructively and continuously with a wide range of stakeholders, including government agencies, shareholders, employees, customers, suppliers, local communities, NGOs, academia, consultants, peers, and financial institutions. These interactions offer critical insights into the social, environmental, and economic impacts of our operations, helping us surface the material issues most relevant to achieving sustainable and equitable growth.

To meet the distinct needs of each stakeholder group, we employ a variety of engagement methods—from daily dialogues with employees to formal platforms such as Annual General Meetings (AGMs) for shareholders. Tailored consultations with suppliers and other key partners help us jointly navigate emerging risks and co-create opportunities for innovation and resilience.

Our commitment is further institutionalized through dedicated Board Sub-Committees, which focus on economic, environmental, and social performance. These committees meet regularly to deliberate on priority issues and submit actionable recommendations to the Board. A structured follow-up mechanism ensures the Board remains well-informed on progress, reinforcing both transparency and accountability.

At its core, stakeholder engagement at SAIL is about listening with intent, acting with purpose, and leading with shared vision—laying the foundation for responsible, responsive, and resilient growth.



Engage. Empower. Evolve.

“Stakeholder engagement is not a one-time event—it’s a continuous conversation.”

— AccountAbility (AA1000SES)

Our stakeholder engagement process is anchored in strategy, inclusiveness, and responsiveness. It follows a structured methodology that includes:

- Stakeholder Identification & Mapping:**
Stakeholders are identified based on their influence, interest, and impact on or by our operations. Categories include employees, contract workers, unions, customers, suppliers, regulatory bodies, investors, civil society, academia, and local communities.
- Materiality Consultation & Issue Prioritization:**
Engagement efforts are aligned with the materiality assessment process ensuring that

stakeholder input shapes our sustainability focus areas.

- Engagement Channels:**
Formal and informal platforms—ranging from internal communication portals to public disclosures and field-level consultations—are leveraged to ensure open dialogue.
- Feedback Integration:**
Stakeholder insights are documented, analyzed, and integrated into business planning, policy development, and ESG disclosures.
- Monitoring & Continuous Improvement:**
We evaluate the effectiveness of our engagement efforts through periodic reviews, feedback loops, and grievance redress mechanisms.
The table below outlines the key stakeholder groups we engage with, the communication methods used, the regularity of interactions, and the primary concerns raised during these engagements.

Shareholding Engagement Matrix
(GRI 2-29)

Stakeholder Group	Vulnerable & Marginalized Group	Modes of Communication	Frequency of Engagement	Key Topics and Concerns Raised
Shareholders	No	Annual General Meetings, Quarterly Reports, Shareholder Relation Meets, Investor Queries/ Interactions	Annually / Quarterly / As needed	- Company Profitability, Wealth Creation, Stock Price, Grievance Redressal
Employees	Yes	Labor Union Meetings (Bipartite/Tripartite), Departmental & Zonal Committees, Dialogue Platforms, DI/C Interactions, Satisfaction Surveys, Annual Appraisals, Newsletters	Daily	Health & Safety Conditions, Competitive Compensation, Professional Growth, Quality of Life, Welfare Measures, Training & Development
Suppliers	Yes	Vendor Meetings, Supplier Conferences, Ancillary Association Meets , SRM Interactions	Quarterly / As needed	Value-creation Partnerships, Timely Payments, Local Supplier Engagement , Supplier Satisfaction
Customers	No	Regional Meets, Plant Visits & Conferences, Site Visits / Surveys, Virtual Meetings, Telephonic / Email Support, AI Chatbots	Continuous	Product Quality, On-time Delivery, Compliance, Customer Satisfaction, Complaint Resolution

Stakeholder Group	Vulnerable & Marginalized Group	Modes of Communication	Frequency of Engagement	Key Topics and Concerns Raised
Community	Yes	Local Community Meetings, Interaction with Municipalities, Town Administration, Participation in Local Events	As needed	Quality of Life, Employment Opportunities, Access to Education, Welfare Services, Healthcare Facilities, Sustainable Livelihoods
NGOs	No	Plant Visits, Seminars & Conferences, Stakeholder Interactions	As needed	Environmental Quality, Human Rights, Advocacy, Freedom of Association, Regulatory Compliance
Regulators	No	Government & Ministry Meetings, Industry Associations, Environmental Authorities, Statutory Compliance Bodies	Annual / As needed	Economic, Environmental & Social Compliance, Human Rights, Safety Regulations, ILO Convention Adherence
Competitors	No	Knowledge Sharing, Industry Partnerships, Anti-competitive Behavior Monitoring, Public Policy Dialogues	As needed	Fair Business Practices, Industry Collaboration, Policy Advocacy
Industry Associations	No	Conferences, Workshops, Seminars	Annually/ As needed	Industry Policy, Regulations, Technology, Environment, CSR, Business Excellence
Academic Bodies	No	Conferences, Workshops, Seminars	As needed	Knowledge Management Activities, Partnership for value Creation
Professionals/ Consultants	No	Visit to Plants, Seminars, Conferences/ Interactions	As needed	Partnership with Value creation, Training and Development
Media	No	Press Meets, Interactions with Plants & Corporate Communications	As needed	Economic, Environmental & Social Performance Achievements



Principles of Materiality Assessment

(GRI 2-14, 2-29, 3-1a,b)

SAIL's materiality assessment is grounded in globally recognized sustainability frameworks, particularly the GRI Standards. In line with Disclosure 2-14 and Disclosure 2-29, our process reflects:

- **Governance Oversight**

The highest governance body oversees sustainability-related impacts and material risks, ensuring alignment with strategic direction and risk management frameworks.

- **Stakeholder Engagement**

Engagement practices are inclusive, well-documented, and tailored to the nature and influence of each stakeholder group. The frequency and method of engagement are matched to the relevance and impact of the topic under discussion.

- **Determination of Material Topics**

We identify and assess material topics by evaluating the significance of environmental, social, and governance (ESG) impacts and their influence on stakeholder decision-making. This dual-perspective approach ensures a balanced view of both internal and external priorities.

Materiality at SAIL: Aligning Strategy with What Matters Most.

SAIL's materiality assessment is a key instrument in aligning our strategic priorities with stakeholder expectations and sustainability imperatives. The process involves:

- **Initial Topic Identification**

A long list of sustainability topics is curated based on GRI Standards, peer benchmarking, industry frameworks (e.g., BRSR), and internal risk registers.

- **Stakeholder Surveys and Interviews**

Feedback is collected from multiple stakeholder groups through surveys, workshops, and consultations to rate the importance of each topic.

- **Business Impact Evaluation**

Internal assessments are conducted to gauge the potential impact of each topic on SAIL's operations, reputation, regulatory compliance, and growth trajectory.

- **Prioritization and Validation**

Topics are plotted on a materiality matrix, balancing stakeholder interest and business impact. Final validation is done by cross-functional leadership teams and the sustainability governance body.

This assessment informs our sustainability strategy, risk management processes, and ESG disclosures—ensuring alignment with both national development goals and global standards. This ensures our ESG strategy addresses real-world priorities while driving long-term value.

Engaging Stakeholders to Identify Key Material Issues

"True sustainability begins with listening—every voice matters."

— GRI Practitioner's Guide

Engaging with stakeholders is at the heart of our sustainability strategy. Their perspectives are essential in identifying, validating, and prioritizing material topics that define our environmental, social, and governance performance.

Through a structured materiality assessment process, we gathered feedback from key stakeholder groups—each offering distinct insights shaped by their relationship with our business.

The reporting boundary for all topics was restricted to the operations of SAIL. Based on the surveys, we have highlighted materiality topics and are taking them into consideration. The material issues thus identified were discussed with the senior management, who then studied the procedure and outcomes of the assessment and finally provided the feedback. Based on the input from the senior management the issues were prioritized as High, Medium and Low.

The Material issues identified are tabulated below:

S.No.	Material Topics	Priority	Linkage to GRI Standards
1.	Occupational Health & Safety	High	Occupational Health and Safety
2.	Water Use & Recycling and Water Stress in Operations	High	Water and Effluents
3.	Employee Training & Development	High	Training and Education
4.	Waste Management	High	Waste
5.	Greenhouse Gas Emissions and Air Pollution	High	Emissions
6.	Business Ethics & Anti-Corruption	High	Anti-corruption
7.	Energy Management, Decarbonization Roadmap and Climate Risk Strategy	High	Energy
8.	Innovation & R&D	Medium	Marketing and Labeling
9.	Biodiversity Impact	Medium	Biodiversity
10.	Community Engagement	Medium	Local Communities, Indirect Economic Impacts, Procurement Practices
11.	Product Lifecycle & Circularity	Medium	Materials
12.	Human Rights	Medium	Child Labor, Forced or Compulsory Labor, Rights of Indigenous Peoples, Supplier Social Assessment, Labor/ Management Relations, Freedom of Association and Collective Bargaining, Diversity and Equal Opportunity, Non-discrimination, Employment, Market Presence, Security Practices
13.	AI & Digitalization in Operations	Medium	Customer Privacy
14.	Supply Chain Resilience	Medium	Supplier Environmental Assessment
15.	Customer Health & Safety	Low	Customer Health and Safety
16.	Resilience to Regulatory Changes	Low	Tax, Economic Performance, Anti- competitive Behavior, Public Policy

These insights have been instrumental in shaping our **Materiality Matrix**, ensuring our sustainability priorities reflect the lived experiences and expectations of our stakeholders.



(GRI 3-2)

Insights that Inform Action

S. No.	Material issue identified	Indicate whether risk or opportunity (R/O)	Rationale for identifying the risk / opportunity	In case of risk, approach to adapt or mitigate	Financial implications of the risk or opportunity (Indicate positive or negative implications)
1	Water Use and Recycling	Opportunity	Water is a vital resource in steel manufacturing. Efficient water use not only ensures regulatory compliance but also reduces operational costs and enhances long-term sustainability.	SAIL is actively pursuing “Zero Liquid Discharge” (ZLD) across all integrated steel plants. This involves deploying advanced effluent treatment technologies and water recycling systems. These efforts reduce freshwater dependency, lower effluent discharge costs, and improve environmental performance, which can attract sustainability-linked financing and improve investor confidence.	Positive
2.	Waste Management (Slag, Dust, Plastics)	Opportunity	Industrial waste, if managed effectively, can be transformed into valuable resources. Recycling slag, dust, and plastics reduces environmental impact and creates economic value	SAIL has implemented systems to segregate, reuse, and monetize waste. BF Slag is used in cement manufacturing, dust is recycled in sinter plants, and plastics are handled through authorized recyclers. These practices reduce landfill costs, generate revenue from byproduct sales, and contribute to circular economy goals, enhancing SAIL’s ESG profile.	Positive
3	Greenhouse Gas Emissions & Carbon Footprint	Opportunity	Reducing emissions aligns with global climate goals and enhances SAIL’s competitiveness in green steel markets. It also opens doors to carbon credits, green bonds, and sustainability-linked incentives	SAIL is actively advancing its decarbonization agenda across integrated steel plants through key technological interventions such as CDQ, TRT, CDI, and Waste Heat Recovery systems to enhance energy efficiency and reduce fossil fuel dependence. The deployment of walking beam reheating furnaces is optimizing rolling mill operations. On the renewable energy front, SAIL aims to scale its capacity to 384 MW by FY 2028-29, transition to LED lighting, and pilot green hydrogen in steelmaking. R&D efforts are focused on CCUS, low-carbon technologies in collaboration with IITs, and slag utilization to curb indirect emissions. These initiatives are guided by a phased decarbonization roadmap, participation in the PAT scheme, and alignment with the National Green Hydrogen Mission—underscoring SAIL’s commitment to sustainable steel production and national climate objectives.	Positive
4	Occupational Health & Safety	Risk	Ensuring the health and safety of employees is critical to maintaining uninterrupted operations, reducing liability, and complying with legal standards. Workplace incidents can lead to downtime, reputational damage, and financial penalties.	SAIL has adopted the ISO 45001:2018 Occupational Health and Safety Management System across all Plants. Regular internal and external audits, safety drills, and training programs are conducted. A dedicated Board Sub-Committee on Health, Safety & Environment monitors performance quarterly, driving continuous improvement and accountability.	Despite the implementation of robust safety protocols, SAIL remains exposed to the risk of workplace accidents, which can result in operational disruptions, legal liabilities, and financial penalties. Any such incidents may also lead to reputational damage, adversely affecting stakeholder trust

S. No.	Material issue identified	Indicate whether risk or opportunity (R/O)	Rationale for identifying the risk / opportunity	In case of risk, approach to adapt or mitigate	Financial implications of the risk or opportunity (Indicate positive or negative implications)
5	Employee Training and Development	Opportunity	A skilled and future-ready workforce enhances operational efficiency, fosters innovation, and supports business continuity. It also improves employee retention and engagement.	SAIL runs structured skill development programs focused on emerging technologies, process optimization, and leadership development. These initiatives are aligned with the company's modernization and digital transformation goals, helping reduce operational errors and improve productivity.	Positive
6	Human Rights	Risk	With a large and diverse workforce across multiple states, any lapse in human rights compliance can result in reputational damage, legal consequences, and loss of stakeholder trust.	SAIL strictly adheres to ILO conventions and national labor laws. The Company ensures fair wages, safe working conditions, and equal opportunities. Grievance redressal mechanisms are in place at multiple levels, allowing employees to report concerns confidentially. Regular training and audits reinforce ethical practices and compliance.	Lapses in human rights compliance can result in regulatory fines and penalties for labor law violations, while operational costs may increase due to work stoppages, protests, or employee unrest. Additionally, such incidents can cause reputational damage and erode stakeholder trust.
7	Business Ethics and Anti-Corruption	Opportunity	Ethical governance is foundational to long-term business sustainability. It fosters transparency, reduces exposure to legal and regulatory risks, and builds trust with investors, partners, and communities.	SAIL has institutionalized a strong ethical framework, including a comprehensive Code of Conduct, Whistleblower Policy, and Anti-Corruption Guidelines. Regular training, internal audits, and compliance reviews are conducted to ensure adherence. These practices enhance stakeholder confidence, reduce litigation risk, and improve access to ESG-linked capital.	Positive
8	AI & Digitalization in Operations	Opportunity	As digitalization increases, the risk of cyber threats and data breaches becomes more pronounced. A single breach can lead to financial loss, reputational damage, and regulatory penalties.	SAIL has implemented a robust Information Technology Security Policy that governs data privacy, cyber protection, and digital asset management. The company conducts regular vulnerability assessments, employee training, and infrastructure upgrades. These measures help prevent breaches, ensure business continuity, and maintain compliance with evolving data protection laws.	Data privacy breaches and cyber security incidents can lead to regulatory fines for non-compliance with data protection laws, reputational damage. Additionally, such incidents can disrupt operations, requiring significant expenditure on system recovery, infrastructure upgrades, and emergency response measures.

This matrix enables leadership teams to:

- Prioritize high-impact sustainability issues across the value chain
- Integrate ESG risk management with enterprise-wide risk processes
- Identify areas for strategic investment, innovation, and stakeholder engagement

frameworks such as GRI Standards , BRSR, and ISO 31000.

By visualizing where each material topic falls—whether as a risk, an opportunity, or both—we are better equipped to build a sustainability strategy that is not only responsive to current expectations but also anticipates future challenges and value drivers.



Hon'ble Minister of Steel Visit to Bokaro Steel Plant

ECONOMIC STABILITY





Global Economic Scenario

In FY'2024, global economy stabilized for the first time in three years. In that year U.S. economy remained resilient and grew by 2.8%, EU's GDP grew by 0.8% while China's economy grew by 5.0%. During the year, inflation rates across major economies trended downward steadily, approaching central bank target levels.

However, at the start of 2025, series of new tariff measures by the United States and counter measures by its trading partners, gave major negative shocks to the growth projections.

As per IMF outlook Report, global growth in FY'2024 was an estimated 3.3% and is projected to grow by 2.8% in 2025 and 3.0% in 2026. It says that the escalating trade tensions and elevated policy-induced uncertainty may further hinder growth. As per OECD economic outlook report March 2025, global GDP growth is expected to moderate to 3.1% in 2025 and 3.0% in 2026.

Indian Economic Scenario

As per the estimates of GoI, India's GDP is estimated to grow by 6.4% in FY 2024-25 as compared to 8.2% last year. Though the growth was lower than the preceding year's growth, it was still higher than the growth rates of the most of the major economies.

Economic Survey of India projects that India's economy will expand by between 6.3 – 6.8% for FY 2025-26. It says that the fundamentals of the domestic economy remain robust. It says that there are many upsides to domestic investment, output growth and disinflation in FY 2025-26 while headwinds to growth include elevated geopolitical and trade uncertainties and possible commodity price shocks.

India's inflation was under control for most part of the year and in March 2025, it was 3.34%, lowest in 5 years and much below the Reserve Bank of India's 4% mid-point target. India's Index of Industrial production during FY 2024-25 was 4.0% which was down as

compared to a growth of 5.9% last year. Growth in Infrastructure sector industries in FY 2024-25 was also lower at 4.4% as compared to 7.6%, last year.

International Steel Scenario

During FY 2024-25, steel prices worldwide came down due to sufficient supplies, sluggish demand and sliding raw material prices. China continued to suffer from slump in the property market and reduction in infrastructure spending. This led to lowering of domestic steel demand and increased steel exports from China. To protect the domestic steel companies from cheap imports, many countries have strengthened the import tariff regime.

World crude steel production in 2024 was 1882.6 MT, down by 0.8% over last year. WSA said that 2024 was a difficult year for global steel demand as the global manufacturing sector continued to face challenges. WSA in its Short Range Outlook October' 2024 has forecast that global steel demand is forecast to rebound by 1.2% in 2025 to reach 1,772 MT.

Indian Steel Scenario

The FY 2024-25 was a landmark year in which India's crude steel production as well as finished steel consumption, both crossed the figure of 150 MT. While crude steel production in FY 2024-25 was 151.9 MT - up by 5.3% y-on-y, Finished steel consumption in the year was 150.23 MT, up by 10.2% y-on-y. However, the year was also characterised by high imports which were 9.5 MT, up by 14.6% y-on-y. As per WSA October 2024 Short Range Outlook, India's finished steel demand is expected to show healthy growth of 8.0% in 2024 and 8.5% in 2025 which is the highest among all the major steel consuming countries. WSA said that India has emerged as the strongest driver of steel demand growth since 2021 and this trend is set to continue.

Keeping the threat of rising imports in mind, in April 2025.

(GRI 3-3, 201-4, 415-1)

SAIL's Economic Performance

(GRI 3-3, 201-1)

SAIL achieved sales turnover of ₹101715.74 crore during the financial year (FY-2024-25), which was lower by 2.71 % as compared to corresponding period of last year (CPLY) turnover of ₹104545.09 crore.

During the FY 2024-25, the Profit before tax and Profit after Tax was ₹3008.82 crore and ₹2147.96 crore respectively as compared to CPLY profit before Tax and Profit after Tax of ₹3687.67 crore and ₹2733.11 crore respectively. Major financial parameters of the SAIL for the last three years are presented below:

Particulars	2022-23	2023-24	2024-25
Gross Turnover (Direct Economic Value Generated)	1,03,768.00	1,04,545.00	1,01,715.74
Net Turnover	1,03,768.00	1,04,545.00	1,01,715.74
Cost of Material consumed including bought out goods	62,091.00	57,618.84	48,952.89
Employee Wages & Salaries	12,053.62	11,747.92	11,658.54
Payments to Providers of Capital			
Interest (Finance Cost)	2,037.47	2,474.00	2,792.77
Interest (Capital-Expenditure During construction)	211.06	183.38	347.84
Dividends	620	826	660.88
Community Investments (CSR Expenditure)	162.46	161.93	138.09
Contribution to Government /Exchequer	23,625.00	22,015.00	21,155.00
Operating Profit	18,090.01	7,002.32	6,114.23
Profit After Tax	1,903.00	2,733.11	2,147.96
Income Retained in Business	8,400.83	1,907.00	7,137.00

Tax Strategy

(GRI 3-3, 207-1, 207-2, 207-3, 207-4)

SAIL, as a listed public sector undertaking with the Government of India (GOI) holding 65% of its paid-up equity share capital, adheres to a robust framework for tax compliance and governance. While the Company does not maintain a separate tax policy due to the GOI's role in governing tax policies through the annual Finance Bill, it ensures full compliance with all applicable tax laws at both the central and state levels. These include statutes related to Provident Funds, Income Taxes, Goods and Services Tax (GST), Customs, and other statutory obligations. SAIL adopts a proactive tax strategy, leveraging opportunities such as Vivad Se Vishwas Schemes, Amnesty Schemes, and conciliation mechanisms introduced by the GOI. The taxation function and associated strategies are overseen by the Director (Finance) and periodically reviewed by the Board's Audit Committee to ensure alignment with organizational objectives.

Management of concerns related to tax has not been

identified as a material topic in the stakeholder engagement. However, as part of our public advocacy, the Company has been giving its suggestions and ideas on the taxation regime regularly at the time of finalization of Union Budget by the Government. The information is sent through mails, etc. directly to the Government or through Trade Associations such as FICCI, CII, etc.

SAIL employs a multi-tiered tax governance framework, incorporating oversight by the Audit Committee, Internal and Statutory Audits, audits by the Comptroller and Auditor General (C&AG) of India, and external audit bodies. These mechanisms ensure tax compliance, accurate disclosures, and adherence to ethical business conduct. No concerns regarding tax compliance or organizational integrity have been raised, as evidenced in the Company's publicly available Annual Report.

Potential tax-related risks are identified and managed by the SAIL Risk Management Committee, comprising Board members. Mitigation measures are promptly undertaken, and the Company provides stakeholders

with assurance of compliance through the Independent Auditors' Report and audit findings presented to both houses of Parliament.

SAIL acknowledges the economic and social impacts of taxation in the jurisdictions where it operates. By aligning with prevailing tax laws and maintaining rigorous governance practices, the Company underscores its dedication to sustainable development and transparent stakeholder communication.

Contribution to National Economy

SAIL is one of the Country's oldest and major steel producers. In FY 2024-25, it was the third largest steel producer in the Country and in terms of the crude steel production. SAIL is a major supplier for project segment requirements and plays a vital role in building critical infrastructure for Nation by supplying steel in prestigious projects. SAIL has supplied steel to number of Iconic Structures and Projects of National

Importance like Ganga Expressway, Mumbai Ahmedabad High Speed Rail Project, Kaleshwaram lift irrigation project, Expansion Project of Numaligarh Refinery Ltd., Nuclear Power Plant at Kalapakkam, Lara Super Thermal Power Station etc.

Under the MoS flagship initiative "Purvodaya", SAIL has launched a scheme for local MSMEs around its 5 integrated Steel Plants. Under the scheme, financial and Non-financial benefits are being extended to MSMEs located in the same district as SAIL's major manufacturing Plant. This scheme envisages larger usage of steel and socio-economic development of targeted districts.

As per Section 135 of the Companies Act, 2013, the Company is required to spend ₹137.63 crore for the year 2024-25 (Previous year: ₹158.75 crore). The company has incurred an expenditure of ₹138.09 crore on CSR activities during the year (₹161.93 crore during the previous year).





DECARBONIZATION AND GREEN TRANSFORMATION



**15 MW FLOATING
SOLAR PLANT AT BSP**



SAIL has remained committed to Environmental, Social, and Governance (ESG) principles, with a strong focus on decarbonization and environmental protection. The Company is dedicated to reducing its carbon footprint and working towards a future that prioritizes sustainability, social responsibility, and the well-being of all.

At the heart of our growth strategy lays the production of steel, sustainably. SAIL is implementing a multi-dimensional approach to decarbonization across its integrated steel plants, special steel plants, captive mines, and various other units. This includes investment in modern technologies, ongoing research, and plant upgrades. Key initiatives focus on digitalization, improving material efficiency through beneficiation and pelletization, boosting energy efficiency, and increasing the use of renewable energy.

Our business strategy supports these commitments and provides the much thrust for the shift towards a low-carbon steel production route. With the aim to bring advanced solutions such as hydrogen-based steel production, digital tools, and energy-saving technologies into our operations, SAIL has established partnerships with leading technology providers, including John Cockerill India, SMS Group, BHP, and Primetals Technologies.

SAIL is also leading the way in using biochar, as a replacement of fossil fuels in sintering and blast furnace operations. India’s first industrial-scale biochar trial has been successfully conducted at SAIL’s Durgapur Steel Plant. We are further exploring the co-injection of biochar

with pulverized coal to reduce emissions and improve fuel efficiency.

Additionally, SAIL is collaborating with premier institutions like IIT Bombay and IIT Kharagpur, to develop technologies for hydrogen-based Direct Reduced Iron (DRI) and capture of flue gas-based CO₂ to convert into value added products and enhancing CBM recovery as well as storing by injecting in CBM wells. In-house R&D is also focused on exploring non-fossil fuel usage in blast furnaces and reducing moisture in coal.

Recognizing the urgency of climate action, SAIL has made carbon reduction a core element of its corporate strategy that is in-line with Government of India’s enhanced ambitions for Nationally Determined Contributions (NDC). To further reduce emission intensity, support industrial decarbonization, and lead the transition to Green Steel production in India, we are adopting multipronged strategy to enhance use of renewable energy, through agreements for green power procurement and implementing solar power installations. Also, we exploring cleaner alternatives to coal such as low-carbon hydrogen, Coal Bed Methane (CBM), and biofuels to minimize environmental impact alongside integrating cutting-edge, environmentally responsible technologies in our ongoing modernization and expansion plans.

SAIL's persistent dedication to energy conservation stands as a testament to its proactive stance in addressing environmental concerns and promoting sustainable steel production practices. The process optimization initiatives at our Plants have contributed to significant reductions in energy consumption and emissions over the years.

CO₂ Emission and Energy Consumption during last 3 years

Parameter	Unit	FY 2024-25	FY 2023-24	FY 2022-23
Total Scope 1 emissions (Break-up of the GHG into CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ , NF ₃ , if available)	Tonnes of CO ₂	52178648	52622079	47603938
Total Scope 2 emissions (Break-up of the GHG into CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ , NF ₃ , if available)	Tonnes of CO ₂	4796073	2446629.724	3020822
Total Scope 1 and Scope 2 emission	Tonnes of CO₂	56974721	55068708.72	50624760
Total Scope 1 and Scope 2 emissions per rupee of turnover (Total Scope 1 and scope 2 GHG emissions / Revenue from operations)	Tonne / ₹ in Cr	578	502	488
Total Scope 3 emissions (Break-up of the GHG into CO ₂ , CH ₄ , N ₂ O, HFC _s , PFC _s , SF ₆ , NF ₃ , if available)	Metric tonnes of CO ₂ equivalent	-4839242	-5300064	-5620400
Total Scope 3 emissions per rupee of turnover #	Tonne / ₹ in Cr	49	48.3	54.2

Partial capture of Scope 3

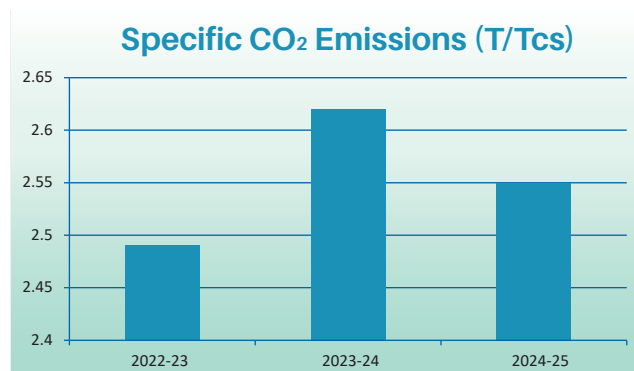
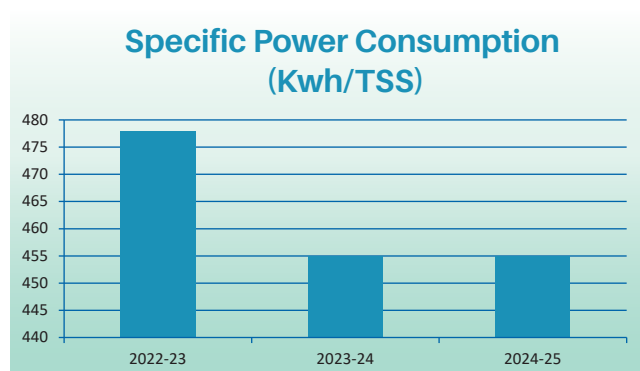
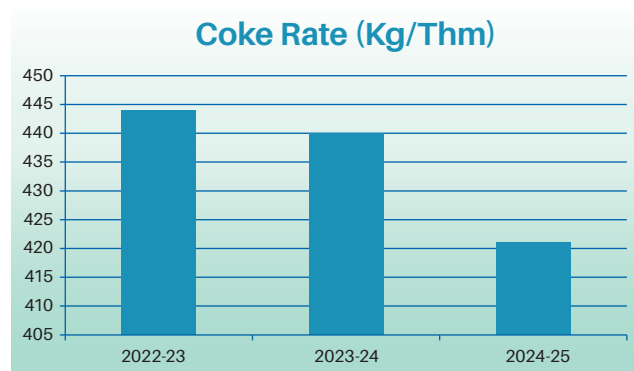
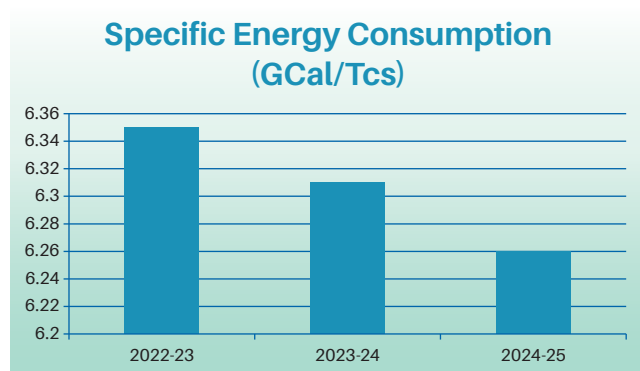
(GRI 3-3, 305-1, 305- 2, 305- 3, 305- 4, 305-5)

Energy Consumption and Intensity

(GRI 302-1, 302-3)

All our 5 Integrated Steel Plants have been identified as Designated Consumer by Bureau of Energy Efficiency, Govt of India. The energy consumption from renewable, non renewable along with fuel consumption is provided below:

Parameter	Units	FY 2024-25	FY 2023-24	FY 2022-23
Total electricity consumption (A)	TJ	1,400	266	230
Total fuel consumption (B)	TJ	-	-	-
Energy consumption through other sources (C)	TJ	-	-	-
Total energy consumed from renewablesources (A+B+C)	TJ	1,400	266	230
Total electricity consumption (D)	TJ	30,472	1,43,445	1,40,245
Total fuel consumption (E)	TJ	4,84,802	4,69,777	4,49,756
Energy consumption through other sources (F)	TJ	2,757	678.5	916
Total energy consumed from non-renewable sources (D+E+F)	TJ	5,18,031	6,13,900	5,90,917
Total energy consumed(A+B+C+D+E+F)	TJ	5,19,431	6,14,166	5,91,147
% of energy consumed from renewable sources	%	0.27%	0.043%	0.039%



(GRI 302-4, 305-4, 305-5)

Power and Fuel Utilization

Type of Power/Fuel Consumed	Units	FY 2024-25	FY 2023-24	FY 2022-23
Power Generation from BF and CO gas (Waste gases)	MW	111.49	187.6	139.3
Renewable Power purchased	MUs	440.63	61.85	54.3
Generation of RE power from own and JV installations	MUs	6.07	8.84	6.6
Boiler/Middling/Steam Coal	TONNE	63470	81768	111994.4
FURNACE OIL	KL	17976.97	19656	22034.2
LSHS	KL	5122.08	4531	8902.3
LDO	KL	61	191	536.5
LPG	TONNE	20872.90	22620	17702.5

Renewable Energy Utilization

(GRI 3-3, 302-1)

In addition to the aforementioned efforts, the optimization of electricity consumption in various steelmaking processes stands as a pivotal focus area for SAIL Plants, aiming to reduce power consumption per tonne of saleable steel production. Demonstrating a commitment to corporate responsibility, the company has placed significant emphasis on the development and utilization of renewable power sources in SAIL's plants, mines, and the surrounding villages and areas, particularly through a targeted approach to Roof Top Solar (RTS) Power Plants. SAIL has taken up a strong drive for promoting Renewable Energy usage at its Plants, Units and Mines and has started installing facilities for harnessing solar energy for generation of power as well as for heating purposes.

The majority of SAIL's guest houses and hospitals are equipped with solar water heaters and solar lighting systems. As part of our commitment to sustainable energy practices we have successfully installed Roof Top Solar power plants with a total capacity of 7.5MWp across plants and units. Further, SAIL's first Floating Solar Power Plant of 4 MWp was commissioned at ISP and another 15 MW capacity Floating Solar Power Plant over Cooling Pond in BSP through NSPCL is likely to be commissioned in 2025. A capacity of 176.45 MWp of rooftop solar plants at various Plants/ Units of the Company across the Country is in progress.

The key renewable power projects under implementation include:

Solar Projects through NSPCL

- 25 MW Ground-mounted Solar Plant at BSL Township
- 30 MW Floating Solar Plant over Cooling Pond in BSL
- 20 MW Ground-mounted Solar Plant, DSP Township
- 15 MW Floating Solar Plant over Waria Reservoir, DSP
- 25 MW Ground-mounted Solar Plant in SAIL Growth Works, Kulti
- 20 MW Floating Solar Plant over Maroda-2 reservoir, BSP
- 6 MW capacity at Utai near CSVTU on BSP land parcel and 500 kW capacity on available land parcel at Hirri Mines, BSP through CREDA

To further bolster its green initiatives, SAIL is procuring renewable bagasse-based power for Salem Steel Plant. Additionally, a joint venture with Green Energy Development Corporation of Odisha Ltd. (GEDCOL) is underway for the proposed development of a 10 MW Small Hydro Electric Plant over Mandira Dam in Rourkela. The company has drawn up ambitious plans to increase its renewable energy capacity to 384 MW by the year 2028-29. Collectively, these efforts are progressively enhancing the company's environmental sustainability and contributing to an expanded green footprint.

In addition, SAIL has continually undertaken various measures like optimization in Plant utilization, improvement in existing processes, introduction of new technologies and increase in waste heat recovery along with a focus is also on reducing consumption of purchased fuel and power.

Strategic Approach on Decarbonisation

Keeping in view India's NDC commitment of achieving 2.30 tonnes of CO₂ per tonne of Crude Steel (t/tcs) by 2030, the decarbonisation programme of SAIL has been segregated in three distinct phases, incorporating Action Plans to achieve 2.19 t/tcs by the year 2030-31. SAIL's decarbonisation strategy has been designed based on the existing architecture and logistics, availability of technology, product basket and market dynamics, technology infusion rate & availability of fund, future expansion plan, breakthrough technological developments, Government policies, and the Company's social commitment. SAIL's strategy for reduction of CO₂ emission is broadly classified into three distinct phases:

Phase-I Decarbonisation

Decarbonisation of steelmaking in SAIL gained momentum during the recent Modernisation-cum-Expansion Program (MEP). During the MEP, following major energy-efficient technologies/facilities have been installed in SAIL plants, which accelerated the decarbonisation process:

- (i) Adoption of Energy-Efficient Technologies and State-of-the-Art Pollution Control Equipment/ Facilities. Some of the major clean technologies installed are as under:
 - Tall Coke Oven Batteries (COBs) along with Coke Dry Cooling Plant (CDCP), Computerised Combustion Control System
 - Top Pressure Recovery Turbine (TRT), Coal Dust Injection (CDI) and Waste Heat Recovery (WHR) with stoves in large volume (>4000 m³) Blast Furnaces (BF); Cast House Slag Granulation Plants (CHSGP) in BF, and Torpedo Ladles for hot metal transfer from BF to Steel Melting Shop (SMS)
 - Sinter Plant integrated with improved ignition system (multi-slit burners), Waste Heat Recovery system with Sinter Cooler
 - 100% Continuous Casting of steel
 - Walking Beam type Reheating Furnaces in Rolling Mills
 - Variable Voltage Variable Frequency (VVVF) drives in plant machineries
 - Installation of energy-efficient motors and pumps in plant machineries
 - By-product gas fired boilers for power generation
- (ii) **Usages of renewable energy:** 12.58 MW solar units have already been installed in SAIL. Apart from solar power, approx. 7 MW bagasse based renewable energy is also being procured at Salem Steel Plant. In addition to this, in Durgapur Steel Plant and IISCO Steel Plant, 50% of their purchased

power is being sourced from Renewable Energy.

(iii) Installation of energy-efficient LED lights

More than 1 million LED lights have already been installed by replacing conventional lights. 84% of the conventional lights have already been replaced with LED lights.

(iv) Creation of carbon sinks: More than 22 million saplings have been planted across SAIL Plants/Units since inception.

(v) Bio-sequestration of CO₂ through afforestation undertaken at Rourkela Steel Plant by engaging M/s Tropical Forest Research Institute, Jabalpur, as the sequestration partner.

Phase-II Decarbonisation (Post-modernisation period till 2030)

During the phase-II decarbonisation, SAIL has aimed at increasing the production efficiency of its installed facilities under MEP, along with putting sustained efforts for further increasing energy efficiency and reducing CO₂ emissions intensity.

Phase-III Decarbonisation (Deep Decarbonisation)

SAIL is in constant interaction with eminent Research Institutes and Technology Providers for decarbonisation through technological interventions and CCUS. SAIL is collaborating with eminent Technology Providers for decarbonisation through technological interventions as mentioned below:

- SAIL-RDCIS signed an MoU with M/s BHP on June 4, 2024 for one year to promote lower carbon steel making technology pathways for the BF-BOF route.
- SAIL-Bhilai Steel Plant signed an MoU with M/s SMS, Germany's leading engineering company on August 3, 2023, for exploring innovative and sustainable solutions for the long-term transformation of steel production by injection of coke oven gas in BF.
- SAIL-Rourkela Steel Plant signed an MoU with M/s Primetal Technologies on February 2, 2024 for one year for facilitating raw material quality improvement, hydrogen-based steel production, gas treatment, improvising upon digitalisation, energy efficiency, CCUS, and related technologies.
- SAIL signed an MoU with M/s John Cockerill India Limited on November 28, 2024 for collaboration, inter-alia, in the field of Green Hydrogen Injection into iron or steel making processes.

With an aim to explore feasibility of Carbon Capture Utilisation and Storage (CCUS) as a significant contributor for decarbonisation, SAIL has collaborated with the following eminent Institutes/Technology Providers:

- Steel Authority of India Limited / IISCO Steel Plant (ISP) signed a tripartite agreement with the National Centre of Excellence in Carbon Capture and Utilization (NCoE-CCU) of IIT, Bombay and Great Eastern Energy Corporation Ltd. (GEECL) on January 19, 2023 for five years.
- Different integrated steel plants of SAIL entered into MoUs separately with M/s Ram Charan Company Pvt. Ltd. (RCPL), Chennai, to set up pilot project at the respective plant site to capture carbon from the industrial flue gases and convert the same into useful Value-Added Products such as Ethanol, Methanol, Isoamyl alcohols and Acetates etc.
- A project titled “A laboratory / pilot scale set up to optimize the process parameters for producing DRI with varying H2 and CO ratio along with 3D Multiphysics modelling of DRI shaft reactor” has been approved by MoS. The work will involve a 10 kg laboratory set- up at IIT Kharagpur and a pilot scale set-up at RDCIS to optimize process parameters for producing DRI with varying H2 and CO ratio. Expected timeline for the same is two years.
- MoS sanctioned a grant of ₹25 Crore (excluding GST) to SAIL for use of hydrogen in existing blast furnace to reduce coal / coke consumption, under the National Green Hydrogen Mission for two years.

SAIL’s unwavering commitment to energy efficiency highlights its proactive approach to environmental stewardship and its dedication to sustainable steel manufacturing. The process optimization measures carried out during the Financial Year 2024-25, along with the resulting benefits, are outlined below

Bhilai Steel Plant (BSP)

- (a) Best ever production of Hot Metal production from BF-8 at 2.8 Mt, using same facilities, surpassing previous best of 2.68 Mt in 2023-24, leading to reduced specific energy consumption at BF-8 by 4%.
- (b) Increase in conversion of high top-gas discharge pressure to electrical energy in BF-8 resulting in highest ever generation of 102.2 GWh of power through Top-pressure Recovery Turbine (TRT) as compared to previous best of 98.5 GWh in 2023-24.
- (c) Best ever average Coal Dust Injection (CDI) rate of

Conservation of Energy

Improving energy efficiency is one of the most accessible and impactful strategies for reducing greenhouse gas (GHG) emissions. Rising energy costs and the accelerating environmental degradation linked to increased GHG emissions have created an urgent need to focus on reducing energy consumption.

SAIL has continually undertaken various measures like optimisation in Plant utilisation, improvement in existing processes, introduction of new technologies and increase in waste heat recovery. Recognizing and supporting efforts to improve energy efficiency, which contribute to India’s climate change mitigation, decarbonization, and sustainable development goals, IISCO Steel Plant was awarded the Gold Award in the Steel Sector category at the SEEM Energy Management Awards.

Performance of SAIL’s Integrated Steel Plants in terms of energy and power was as follows during the reporting period:

Plant	Specific Energy Consumption (Gcal/tcs)	Specific Power Consumption (kWh/tss)
BSP	6.3	468
DSP	6.35	429
RSP	5.92	440
BSL	6.52	461
ISP	6.16	492

134.1 kg/thm in BF8, surpassing previous best of 120 kg/thm achieved in 2023-24.

- (d) Highest ever Basic Oxygen Furnace (BOF) gas recovery from SMS-3 was achieved with annual recovery of 92.4 Nm3 /tcs, as compared to previous best of 86.7 Nm3 /tcs in 2023-24.
- (e) Judicious utilization of by-product gases resulted in reduced Pitch Creosote Mixture consumption in Power Plant by 64% to 13 kL/d from previous financial year.
- (f) Lowest ever specific heat consumption achieved in Plate Mill and Bar & Rod Mill at 427 Mcal/t slabs rolled and 276 Mcal/t billets rolled, respectively.
- (g) Installation of Variable Voltage Variable Frequency Drives for gas booster-2 of BOF gas holder in SMS-2, pusher car-7 of Coke Oven & Coal Chemical Department and in coke oven gas boosters (2 nos.) of BF-8.

Durgapur Steel Plant (DSP)

- (a) Optimisation of steelmaking operation resulted in lowest ever overall Total Metallic Input (TMI) of 1,096 kg/tcs in SMS. Previous best overall TMI in SMS was 1,108 kg/tcs in 2023-24.

Rourkela Steel Plant (RSP)

- (a) Installation of waste heat recovery system in BF-5 stoves resulting in increase of hot blast temperature of around 400C leading to reduction in coke rate by about 4 kg/thm.
- (b) Stoppage of running of two HT water pumps used for auxiliary cooling by replacing alterante source in HSM-1 resulting in energy saving of 3,942 MWh.
- (c) Injection of 2,000 Nm³/h Mixed gas in BF Gas line for stove heating in BF-1 resulting in saving of 4 kg/thm of BF coke.

Bokaro Steel Plant (BSL)

- (a) Erection of a 2,000 m long 800 mmNB CO gas pipeline for RMP to enhance the efficiency of the gas distribution system leading to tar saving of approx. 60t/day.
- (b) Reduction in steam usage by 20 t/h through commissioning of an IoT- based steam metering system in the process steam network.
- (c) Saving of coal of 3t/day by utilizing decanter sludge in coal blend.

- (d) Increase in CDI rate in Blast Furnaces to 86 kg/thm in 2024-25 from 79 kg/thm in 2023-24.
- (e) Reduction of specific heat consumption by 0.03 Gcal/t slab rolled in HSM by replacing two nos. of recuperators.
- (f) Installation of variable frequency drive for charging vibrators of BF-1 and BF-5 leading to reduction in power consumption by about 15%.
- (g) Implementation of AI-assisted intelligent stoichiometric optimization in direct fired furnace burners at HDGL, CRM-3, resulted in reduced consumption of propane by 14%.

IISCO Steel Plant (ISP)

- (a) Best ever average CDI rate of 134 kg/thm in BF was achieved surpassing previous best of 126 kg/thm in 2023-24.
- (b) Lowest ever BF Coke Rate of 372 kg/thm was achieved against previous best of 382 kg/thm in 2019-20.
- (c) Installation of 4 MW floating solar photovoltaic plant generated 5,505.5 MWh of power in 2024-25.

A Capital Expenditure of about ₹117 Crore has been incurred on energy conservation equipment/measures during the Financial Year 2024-25.



Coke Oven Battery #2 at RSP

India-Sweden Industry Transition Partnership (ITP) under LeadIT

India Sweden Industry Transition Partnership (ITP) Under LeadIT

The India-Sweden Industry Transition Partnership (ITP), under the framework of the Leadership Group for Industry Transition (LeadIT), is a strategic initiative aimed at accelerating the transition to low-carbon and sustainable industrial development. Co-chaired by the Governments of India and Sweden, the ITP promotes collaboration through knowledge exchange, technology transfer, and capacity building across critical industrial sectors. It focuses on supporting hard-to-abate industries—such as steel, cement, and heavy manufacturing—in adopting clean technologies and innovative business models to achieve net-zero emissions.

LeadIT, launched at the UN Climate Action Summit in September 2019 by Sweden and India and supported by the World Economic Forum, brings together a coalition of countries and forward-looking companies committed to aligning industrial growth with the goals of the Paris Agreement and the broader net-zero transition.

A significant milestone in this journey is the official induction of the Steel Authority of India Limited (SAIL) into LeadIT, reinforcing its leadership as a global advocate for sustainable industrial practices. This recognition was formally announced during the prestigious event ‘Engaging India at Almedalen’, held in Visby, Sweden, on June 25, 2024.

As part of its active engagement under LeadIT, SAIL is involved in five strategic project groups that focus on key decarbonization pathways:



Shri Amarendu Prakash, Chairman, SAIL, along with Shri Tanmaya Lal, Ambassador of India to Sweden & Latvia at the Almedalen event.

1. Hydrogen-based DRI (Direct Reduced Iron)
2. Carbon Capture, Utilization, and Storage (CCUS)
3. Operational Excellence in Blast Furnaces
4. Dry Beneficiation of Low & Tailing Grade Iron Ore
5. Biomass Consumption Pathways

SAIL's technical team, comprising members from EMD and ISP, also participated in COP29 (November 14-16, 2024), contributing to critical discussions at LeadIT events such as the LeadIT Members Meeting and the India-Sweden Industry Transition Partnership - Road to Belém. Additionally, the team engaged in the Hydrogen Transition Summit 2024 and various COP29 side events hosted by global climate and industry organizations, further solidifying SAIL's role in shaping a cleaner, more sustainable industrial future.



SAIL team participated in COP29 at Baku, Azerbaijan

ENVIRONMENTAL STEWARDSHIP AT SAIL:

A Commitment to Sustainability



Steel Authority of India Limited (SAIL) demonstrates a profound dedication to environmental stewardship, seamlessly embedding sustainable practices within its operations. Striking a balance between profitability and ecological responsibility, SAIL champions clean and green growth to safeguard both public health and the environment.

At the core of SAIL's strategy lies its Corporate Environmental Policy, which prioritizes pollution prevention and climate change mitigation. This policy drives a range of impactful initiatives, including reducing greenhouse gas emissions, expanding green cover, and adopting cutting-edge energy-efficient and renewable technologies.

A Comprehensive Environmental Management Approach

SAIL's multi-layered environmental management system effectively addresses the complexities of its operations—from mineral extraction to steel production. The system is spearheaded by the Environment Management Division (EMD) and supported by highly skilled personnel in environmental control departments at each facility, ensuring robust protection measures across the board.

Training and awareness are central to fostering a culture of environmental responsibility among employees. Through initiatives in energy conservation, resource optimization, biodiversity protection, and eco-restoration, SAIL integrates sustainability into every facet of its operations.

Exceeding Compliance and Ensuring Accountability

SAIL adheres rigorously to environmental standards for air emissions, water discharge, and noise pollution. The company responsibly manages waste within its industrial facilities and neighboring communities. Regular compliance reports submitted to the Ministry of Environment, Forest and Climate Change (MoEFCC) underscore SAIL's proactive commitment to exceeding regulatory benchmarks.

To ensure transparency and accountability, SAIL employs NABL-accredited laboratories and real-time monitoring systems, directly linked to state and central pollution control boards.

Innovative Research and Technological Advancements

SAIL continuously strives to minimize its environmental and social footprint by advancing research in areas such as:

- Optimizing coal blending and sinter quality.
- Enhancing process productivity and developing strategic products.
- Improving energy efficiency in re-heating furnaces and coke oven batteries.
- Refining effluent treatment processes and upgrading refractory linings.
- Maximizing pellet utilization and advancing waste recycling.

During the fiscal year, the company allocated 10.48% of its R&D and capital expenditure to initiatives improving environmental and social impacts, amounting to ₹5879 crore.

By adopting a transparent, strategic, and innovative approach to environmental stewardship, SAIL reaffirms its role as a responsible and visionary leader in the steel industry.

Proactive Environmental Monitoring: SAIL's Pillar of Sustainability

Regular monitoring of environmental parameters is a cornerstone of Steel Authority of India Limited's (SAIL) sustainability strategy, ensuring the prevention of adverse environmental incidents. At the highest management level, SAIL integrates environmental oversight into its governance framework through quarterly reviews by the Board Sub-committee on Health, Safety, and Environment, reinforcing compliance with statutory requirements for its plants and mines.

SAIL's Environmental Policy not only mandates adherence to stipulated norms but also aspires to exceed them. This progressive approach reflects the company's determination to harmonize its operations with the surrounding ecosystems. All SAIL plants and mines are committed to minimizing ecological disruption and proactively undertake measures to restore degraded environments and sustain biodiversity.

Key Environmental Initiatives

SAIL’s extensive efforts to enhance ecological balance and biodiversity include:

- Ecological restoration of mined-out areas, transforming them into functional ecosystems.
- Implementing extensive fresh plantations to bolster green cover.
- Enhancing waste utilization through innovative recycling strategies.
- Regularly revamping, refurbishing, and revitalizing pollution control devices for efficient operations.
- Exploring and adopting renewable energy sources to reduce carbon footprints.

Measurable Improvements in Sustainability Metrics

SAIL’s focused approach has led to significant improvements across various sustainability parameters, including:

- Reduction in Specific PM Emission Load.
- Optimized Specific Water Consumption.
- Lower Specific Effluent Discharge and Effluent Load.
- Enhanced Solid Waste Utilization efficiency.

These measurable enhancements underscore SAIL’s unwavering commitment to operating responsibly while safeguarding ecological integrity. By continuously driving innovation and sustainability, SAIL cements its position as a leader in environmental stewardship within the steel industry.

Environmental KPIs	Unit	2022-23	2023-24	2024-25
Sp. PM Emission	kg/tcs	0.57	0.58	0.56
Sp. Water Consumption	m ³ /tcs	3.06	3.02	3
Sp. Effluent Discharge	m ³ /tss	1.32	1.27	1.26
Sp. Effluent Load	kg/tcs	0.052	0.054	0.053
BOF Slag Utilisation	%	90	113	137
Total Solid Waste Utilisation	%	101	103	107

Additionally, SAIL has proactively identified key environmental risks and developed targeted mitigation strategies, which are outlined as follows:

Environmental Risks	Mitigation Strategies
• Increased global concern for climate change prompting adoption of challenging targets by the Regulators • Operational and Financial risk to the industry in the form of carbon taxes, emission caps etc. • Increasing quantity of waste requiring proper management and disposal • Deteriorating air and water quality as a result of increasing concentration of industries in the vicinity	• Regular adoption of clean technologies to reduce CO₂ emissions • Adoption of robust environmental protection measures and in the process of fixing up internal carbon price to offset this risk • Developing strategies for proper handling, recycling and reuse of waste • Preparing for ‘beyond compliance’ scenario, greenery development and regular interaction with statutory bodies.

SAIL: Leading Social Responsibility and Sustainable Development

Steel Authority of India Limited (SAIL) exemplifies its dedication to social responsibility through proactive environmental management and innovative economic initiatives that create a positive impact on society. Its unwavering commitment to sustainable development is highlighted by its adherence to the Charter on Corporate Responsibility for Environmental Protection (CREP)—a voluntary agreement with the Ministry of Environment, Forest and Climate Change (MoEFCC)—which urges steel plants to reduce their environmental footprint.

In alignment with the Sustainable Development Guidelines issued by the Department of Public Enterprises (DPE), SAIL has instituted a comprehensive Sustainable Development (SD) Policy and implemented targeted SD projects across its plants, units, and mines.

Ethics and Transparency at the Core

SAIL integrates ethical and transparent practices into all facets of its operations, ensuring alignment with its sustainability vision and stakeholder interests. This commitment is reflected annually in its Business Responsibility and Sustainability Report (BRSR), published as part of the company's Annual Report, showcasing achievements and ongoing efforts.

A Commitment to Climate Action

SAIL is actively reducing its carbon footprint in accordance with Nationally Determined Contributions (NDC), supporting India's climate goals. It also participates in the World Steel Climate Action Recognition Program, which empowers steel producers to monitor and mitigate CO₂ emissions via a robust data collection system.

Pioneering Responsible Industrial Practices

Through these initiatives, SAIL reinforces its role not only as a sustainability leader but also as a driver of responsible industrial transformation. By championing transparency, innovation, and sustainable practices, SAIL continues to set benchmarks that benefit both the environment and society.

Sustainability Through Clean Technology and Energy Efficiency

Steel Authority of India Limited (SAIL) places sustainability at the forefront of its technology strategy, prioritizing clean technologies that integrate energy-efficient solutions and advanced pollution control measures.

State-of-the-Art Facilities Driving Environmental Performance

SAIL has implemented cutting-edge infrastructure and processes, including:

- Coke Dry Cooling Plants (CDCP) paired with advanced coke oven batteries for reduced emissions and optimized energy use.
- Waste Heat Recovery (WHR) systems harnessing residual heat from sinter coolers to improve energy efficiency.
- Coal Dust Injection (CDI) methods enhancing resource utilization and operational sustainability.
- Top Gas Pressure Recovery Turbines (TRT) converting waste energy from blast furnaces into electricity.

Innovative Enhancements in Production and Machinery

To further elevate environmental performance, SAIL has adopted:

- Continuous Casting technology, reducing energy consumption and improving yield efficiency.
- Walking Beam Reheating Furnaces in rolling mills, optimizing thermal efficiency.
- Energy-efficient motors and Variable Voltage Variable Frequency (VVVF) drives, ensuring machinery operates with minimal energy waste.

These initiatives underscore SAIL's dedication to reducing its environmental footprint while advancing sustainable production practices. The integration of clean technologies reflects SAIL's leadership in fostering responsible industrial development.

SAIL’s Commitment to Environmental Stewardship and Sustainability

Steel Authority of India Limited (SAIL) stands as a proud signatory to the Sustainable Development Charter, solidifying its dedication to embedding sustainability within core business practices. As a proactive member of the global steel community, SAIL aligns its operations with the principles of the updated worldsteel Sustainability Charter, which encompasses nine principles and twenty criteria across Environmental, Social, Governance, and Economic (ESGE) dimensions. Demonstrating transparency and accountability, SAIL submits comprehensive data to verify compliance with these standards.

A Model for Sustainability in the Steel Industry

Through active participation in international sustainability frameworks and achievements like GreenPro certification, SAIL continues to lead the way in fostering environmentally responsible practices. Its dedication to sustainable development showcases the company’s commitment to not only fulfilling ESGE goals but also driving positive environmental and societal impacts.

Monitoring and Mitigation of Non-GHG Emissions

Steel Authority of India Limited (SAIL) is steadfast in its efforts to manage and mitigate non-GHG emissions, adopting proactive measures to ensure a cleaner and healthier environment within and around its facilities.

Strategies for Reducing Sulfur Dioxide (SO₂) Emissions

SAIL employs low-sulfur coal in its operations and utilizes desulfurized coke oven gas, significantly

reducing the release of SO₂ into the atmosphere. These strategies demonstrate SAIL’s commitment to minimizing environmental impact while maintaining operational efficiency.

Innovative Approaches to Curtail Nitrogen Oxides (NOx) Emissions

To effectively control NOx emissions, SAIL has installed specially designed burners and implemented process-related modifications across its facilities. These technical advancements ensure compliance with environmental standards and contribute to sustainable production practices.

Key Achievements in Emission Metrics

SAIL’s proactive measures have yielded measurable improvements, with NOx intensity recorded at 0.95 kg/tcs during the reporting period. These figures underscore the company’s dedication to continual improvement and environmental stewardship.

By implementing these strategies, SAIL sets a benchmark for responsible industrial practices, reinforcing its commitment to sustainability and the well-being of surrounding communities.

The sustained focus on air quality parameters not only underscores a commitment to environmental stewardship but also serves as a testament to the effectiveness of targeted interventions in fostering healthier ecosystems and safer work environments. These results reinforce the significance of integrating proactive measures into daily operations, ensuring continued progress toward cleaner and more sustainable industrial practices.

The air quality in work zones and the surrounding areas has been closely monitored, and the parameters for the period 2024-25 reflect the positive impact of these initiatives.



Plantation Drive at BSP

(GRI 3-3, 305-7)

Below are the key air quality indicators for SAIL plants:

Coke Oven Batteries (By-product type)

Table: Fugitive visible emission

Plant	Parameter													
	PLD %				PLL %		PLO %		Charging Emission (Second/charge)					
	5 ¹		10 ²		1		4		16 ³		50 ⁴		75 ⁵	
Norm	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
BSP	4.30	4.80	1.60	4.70	0.00	0.10	0.00	1.76	13	15	34	48	NA	
DSP	NA		0.08	4.00	0.08	0.96	1.06	3.86	NA		27	47	26	61
RSP	3.36	4.85	0.00	9.65	0.00	0.24	0.00		14	15	5	49	NA	
BSL	NA		0.00	8.79	0.00	0.99	0.00	3.99	NA		28	50	34	50
ISP	1.33	2.70	0.58	0.97	0.08	0.45	0.30	1.60	11	14	9	14	NA	

Note:
¹Norm for PLD for new COBs (at green field site)
²Norm for PLD for rebuilt and existing COBs
³Norm for Charging Emission for new COBs (with HPLA)
⁴Norm for Charging Emission for rebuilt COBs (with HPLA)
⁵Norm for Charging Emission for existing COBs
NA - Not Applicable

Table: Fugitive emission of Benzo(a)Pyrene (BaP)

BENZO (A) PYRENE (BAP)				
Plant	Top of COB		Other units in COB	
Norm	5 µg/m³		2 µg/m³	
	Min.	Max.	Min.	Max.
BSP	1.91		BDL	1.348
DSP	0.73	1.05	0.52	0.91
RSP	0.08	0.186	0.008	0.098
BSL	1.4	2.2	1	1.9
ISP	0.002	0.006	BDL	0.005

Blast Furnace

Table: Fugitive emission

Plant	Parameter															
	PM				SO ₂								CO		Pb [§]	
	3000 ¹ µg/m³		4000 ² µg/m³		150 ¹ µg/m3		200 ² µg/m³		120 ¹ µg/m³		150 ² µg/m³		10000 ³ µg/m³		2 µg/m³	
Norm	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
BSP	740	2269	817	2139	55	75	56	75	54	75	55	79	894	1272	0.01	0.06
DSP	NA		936	1408	NA		14	57	NA		33	40	2092	2516	0.1	0.12
RSP	904	2812	730	2319	5	22	8	26	22	37	23	37	1946	3798	<0.1	<01
BSL	NA		1015	3870	NA		18	52	NA		13	80	1320	5160	0.04	0.43
ISP	598	1080	NA		50	69	NA		65	84	NA		1000	3000	<0.01	0.10

Note:
¹Norm for new BF
² Norm for existing BF
³At BSP, monitoring of CO is done on 8 hourly basis, for which norm is 5000 µg/m3; other plants monitor CO on 1 hourly basis, for which norm is 10000 µg/m3
[§]Pb: Lead in fugitive dust at Cast House
NA- Not Applicable

Steel Melting Shop

Table: Fugitive emission

Plant	Parameter													
	PM				SO ₂				NO _x		CO		Pb ^{\$}	
Norm	3000 ¹ µg/m ³		4000 ² µg/m ³		150 ¹ µg/m ³		200 ² µg/m ³		150 ² µg/m ³		10000 ³ µg/m ³		2 µg/m ³	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	M in.	Max.
BSP	474	2110	283	1901	50	86	41	75	47	80	823	1470	0.01	
DSP	NA		744	1451	NA		27	43	23	38	1432	2516	0.11	0.12
RSP	NA		1037	2634	NA		4	24	18	38	1897	3432	<0.1	<1
BSL	NA		508	3842	NA		13	53	22	82	1300	5084	0.08	0.7
ISP	424	860	NA		19	49	NA		36	60	400	2700	<0.01	0.10

Note:
¹ Norm for new BOF converters
² Norm for existing BOF converters
³At BSP, monitoring of CO is done on 8 hourly basis, for which norm is 5000 µg/m3; other plants monitor CO on 1 hourly basis, for which norm is 10000 µg/m3
^{\$}Pb: Lead in fugitive dust at Converter Floor
NA- Not Applicable

Ambient Air Quality at Plant:

Table: Ambient Air Quality

Plant	Parameter											
	PM _{2.5}		PM ₁₀		SO ₂		NO ₂		NH ₃		CO	
Norm	60 µg/m ³		100 µg/m ³		80 µg/m ³		80 µg/m ³		400 µg/m ³		4000 µg/m ³	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
BSP	15	39	30	54	11	26	10	26	2	3	215	270
DSP	27	52	61	89	6	21	14	36	10	24	720	980
RSP	18	39	51	94	3	22	10	39	21	124	220	950
BSL	13	50	36	91	<5	45	7	51	0	73	270	1800
ISP	28	58	59	98	10	36	12	66	18	92	<45	1710

Table: Ambient Air Quality

Plant	Parameter											
	C ₆ H ₆		O ₃		Pb		As		Ni		BaP	
Norm	5 µg/m ₃		180 µg/m ₃		1 µg/m ₃		6 ng/m ₃		20 ng/m ₃		1 ng/m ₃	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
BSP	1.12	1.3	22	1.3	0.03	0.06	BDL		2	6	BDL	
DSP	<0.5	2	10	2	<0.1		<0.1		<5.0		<5.0	
RSP	<0.5		17	<0.5	<0.4	<0.5	<0.2	<2	<0.12	<12	<0.1	
BSL	0.07	1.58	3	1.58	<0.05	0.49	<2	3	<2	8	<0.05	<0.5
ISP	<1.16	<4.2	16	<4.2	<0.01	<0.1	<0.3	<1.0	<3.6	<5.0	<0.4	<0.57

Note:
BDL - Below Detection Limit

SAIL's Decarbonization Strategy: A Bold Path Towards a Sustainable Future
(GRI 305-5)

SAIL recognizes the urgent global challenge of climate change and positions the reduction of its carbon footprint as a cornerstone of its corporate philosophy and operational framework. In harmony with the Government of India's enhanced climate commitments articulated at COP26, SAIL has firmly resolved to play a pivotal role in advancing national and global decarbonization ambitions. The company has set ambitious targets, including a substantial reduction in CO₂ emissions, an expanded reliance on renewable and non-conventional energy sources by 2030, and the ultimate realization of net-zero emissions by 2070.

A Structured, Strategic Approach

SAIL's decarbonization roadmap is meticulously structured into three progressive phases.

Reflecting SAIL's commitment to not only meet but also exceed its environmental obligations, driving innovation and leadership in sustainable steelmaking.

Milestones Achieved through the Modernization and Expansion Programme

The company's decarbonization journey gained remarkable momentum under its Modernization and Expansion Programme (MEP), initiated in 2008. Through the adoption of cutting-edge, energy-efficient technologies across its processes, SAIL has achieved significant milestones:

- Around 18% reduction in CO₂ emissions during the 2024-25 compared to 2005-06 levels.
- Enhanced operational efficiencies and clean energy integration.

As these upgraded facilities operate at their full potential, SAIL anticipates further reductions in greenhouse gas emissions, underscoring the effectiveness of its forward-thinking approach.

Commitments to Future Targets

Looking ahead, SAIL is setting its sights on ambitious

goals:

Achieving emissions below 2.30 tCO₂/tcs by 2030, surpassing its NDC commitments and Scaling up renewable energy capacity to an impressive 384 MW by 2028-29.

Through these decisive actions, SAIL demonstrates its unwavering dedication to sustainability and environmental stewardship, setting a benchmark for the steel industry and contributing meaningfully to global efforts to combat climate change.

This multifaceted strategy exemplifies SAIL's vision to not only transform its operations but also lead the charge in reimagining a greener, more sustainable industrial future.

Sustainability Through Optimized Water Management: SAIL's Commitment to a Responsible Future

Water, an indispensable resource for life and development, demands prudent use and conservation, especially in an industrial context. Recognizing this, SAIL has integrated water stewardship into the core of its sustainability agenda, addressing one of the most pressing environmental challenges of our time. Guided by its Corporate Environmental Policy, the company champions the principles of "reduce, recover, recycle, and reuse" across all operational processes, ensuring natural resources like water are preserved for generations to come.

A Policy-Driven Approach to Conservation

SAIL's approach to water management extends beyond compliance with regulatory mandates—it actively shapes strategies aimed at maximizing resource efficiency. By embedding specific water consumption targets into the annual business plan for each plant, the company demonstrates a structured and goal-oriented methodology. Transparency through reporting and rigorous review mechanisms further reinforces accountability and ensures continuous improvement.

Water Sources for the Plants and Units

Plant/Unit	Water Source
BSP	River Mahanadi
DSP	River Damodar
RSP	River Brahmani
BSL	River Damodar
ISP	River Damodar
ASP	River Damodar
SSP	River Kaveri
VISL	River Bhadra
SGW	River Barakar

(GRI 3-3, 303-1, 303-3, 303-5)

Strategic Sourcing to Minimize Environmental Impact

With the exception of the Chandrapur Ferro-Alloy Plant (CFP), SAIL's plants and units source fresh water primarily from perennial rivers. This deliberate choice reflects a deep commitment to sustainability, ensuring operations do not adversely impact water-stressed regions. This approach guarantees a stable supply while protecting the fragile ecosystems of water-scarce areas.

Innovative and Community-Centric Solutions

Through a robust management policy, SAIL has implemented cutting-edge technological solutions to enhance water utilization efficiency. Beyond serving industrial needs, these systems are designed to benefit local communities, fostering a culture of collaboration and awareness about the critical importance of water management.

A Vision for the Environment and Society

SAIL prioritizes water conservation as a cornerstone of its sustainability efforts, recognizing its vital role in safeguarding environmental health and societal well-being. As water management challenges grow more complex, the company's proactive measures stand as a testament to its unwavering commitment to creating a balanced and sustainable future for all. With these initiatives, SAIL continues to lead by example, advancing its vision of harmony between industrial progress and ecological integrity.

SAIL's Unwavering Commitment to Water Conservation

Water conservation is a critical priority for the steel industry, where extensive use for cooling, gas cleaning, descaling, dust scrubbing, and other processes is unavoidable. However, SAIL has effectively turned this challenge into an opportunity, ensuring minimal actual water consumption through robust practices of wastewater recycling and reuse. This forward-looking approach exemplifies the company's steadfast commitment to environmental stewardship.

Transformative Initiatives to Minimize Water Usage

SAIL has continuously implemented impactful measures to reduce overall water consumption across its operations. Key initiatives include:

- **Proactive Leak Management:** Identifying and repairing sources of water leakage to prevent wastage.

- **Effluent Treatment Plants (ETPs):** Establishing state-of-the-art treatment facilities to purify and recycle wastewater.
- **Discharge Assessments:** Conducting in-depth analyses of discharged water to identify opportunities for reducing dependence on fresh makeup water.

These efforts are part of an overarching strategy to embed efficiency and sustainability into every aspect of water management.

Building Awareness and Driving Social Change

Understanding that sustainability extends beyond the factory gates, SAIL has prioritized fostering a culture of water conservation across its plants and townships. Through initiatives such as the annual "Water Conservation Month," the company raises awareness, organizes seminars, and develops actionable plans to instill water-saving practices in employees and communities alike.

Comprehensive Action for Sustainable Water Management

SAIL's multifaceted approach includes:

- **Employee and Community Engagement:** Actively involving stakeholders to amplify collective impact.
- **Rainwater Harvesting Systems:** Investing in advanced infrastructure to optimize natural water resources.
- **Effluent Monitoring and System Upgrades:** Regularly assessing the quality and quantity of effluents and upgrading systems to maximize efficiency.
- **Third-Party Assessments:** Engaging independent experts to identify areas for improvement and incorporate best practices.

Remarkable Achievements in Water Stewardship

Over the last three years, SAIL has achieved an impressive 2% reduction in specific water consumption, positioning itself as a leader in sustainable water management. In the fiscal year 2024-25 alone:

- **Total Water Consumption:** 56,708 mega liters (3.00 m³/tcs)
- **Water Discharged:** 22,119 mega liters (1.26 m³/tss)

These figures reflect a carefully calibrated balance between industrial needs and environmental responsibility.

A Blueprint for the Future

SAIL's dedication to water conservation is more than just a corporate initiative—it is a blueprint for responsible industrial practices. By integrating innovative technologies, fostering collaboration, and maintaining transparency, the company continues to set benchmarks in resource efficiency, ensuring that precious water resources are safeguarded for future generations. Through these unwavering efforts, SAIL demonstrates how industries can harmonize growth with sustainability, becoming true stewards of the environment.

Rainwater Harvesting: A Key Pillar of SAIL's Sustainability Strategy

SAIL has embraced rainwater harvesting as a crucial element in its resource conservation efforts, ensuring this initiative serves both industrial and community needs. By implementing innovative rooftop rainwater harvesting systems across its plants, mines, and townships, the company has achieved significant milestones in sustainable water management. These facilities collectively create an impressive annual recharge potential of 291 million liters, showcasing SAIL's proactive approach to addressing water resource challenges.

Alignment with National Initiatives

SAIL's rainwater harvesting efforts resonate with the Ministry of Jal Shakti's 'Catch the Rain' campaign, reinforcing the company's dedication to national priorities. The campaign's ethos has been seamlessly integrated into SAIL's project planning and execution frameworks:

- **New Project Designs:** Rainwater harvesting facilities are embedded into the planning phase, ensuring future developments contribute to water conservation.
- **Technical Specifications:** Clear guidelines for integrating harvesting systems are included in proposals, setting a strong foundation for sustainable implementation.

A Vision for Responsible Water Use

These initiatives not only reflect SAIL's commitment to efficient water utilization but also exemplify its focus on reducing dependency on external water sources. By strategically investing in rainwater harvesting infrastructure, the company maximizes the use of natural resources, aligning its operations with environmental stewardship and social responsibility.

Creating Impact Beyond Industrial Operations

SAIL's approach extends beyond its facilities, fostering

community awareness about the importance of rainwater conservation. By promoting these practices at the grassroots level, the company encourages wider adoption of sustainable water use methods, driving positive change in the regions where it operates.

Through innovative strategies and alignment with national goals, SAIL continues to lead by example, strengthening its position as a responsible corporate entity committed to preserving vital water resources for future generations.

SAIL's Comprehensive Wastewater Management Initiatives: A Blueprint for Sustainability

Effective wastewater management is critical for industries, especially the steel sector, to minimize their environmental footprint. Acknowledging the potential risks of untreated effluents to local ecosystems, SAIL has adopted a proactive, multi-pronged approach to ensure sustainable and responsible water management across its operations.

Efficient Effluent Treatment and Monitoring Systems

SAIL ensures that effluent discharged from its plants and mines is rigorously treated and closely monitored:

- **Effluent Treatment Plants (ETPs):** High-performance ETPs are operational across SAIL's facilities to treat wastewater effectively, ensuring compliance with regulatory standards.
- **Online Monitoring:** Advanced effluent quality monitoring systems are installed, with real-time data directly linked to the State Pollution Control Boards (SPCBs) and the Central Pollution Control Board (CPCB) for enhanced transparency and oversight.
- **Environment Impact Assessments (EIAs):** Regular EIA studies confirm that SAIL's operations do not adversely affect local water sources or natural ecosystems.

Zero Liquid Discharge (ZLD): A Vision for the Future

SAIL is on an ambitious trajectory to achieve Zero Liquid Discharge (ZLD) by prioritizing the treatment and recycling of all effluent within plant boundaries. Key measures include:

- **Treatment and Recirculation:** Around 128 million m³ of wastewater annually is treated and repurposed for further industrial use.
- **Capacity Expansion:** Effluent treatment facility with a total capacity of 500m³/hour was commissioned during the 2024-25.

Sustained Achievements and Leadership

SAIL's commitment to excellence in wastewater management is exemplified by the Chandrapur Ferro Alloy Plant, which has consistently maintained **zero liquid discharge since 2013**, setting a benchmark for industrial water management.

Driving Continuous Improvement

To ensure ongoing progress toward ZLD, several schemes are under various stages of implementation, emphasizing:

- Adoption of cutting-edge technologies.
- Special initiatives to maximize the reuse of treated industrial effluents.

- Third-party assessments to identify further opportunities for optimization.

Pioneering Sustainable Practices

With these comprehensive measures, SAIL reinforces its dedication to resource conservation and environmental stewardship. By balancing industrial needs with ecological considerations, the company continues to lead the steel sector toward a more sustainable and responsible future. These efforts not only enhance operational efficiency but also underscore SAIL's role as an industry leader in sustainable water and wastewater management practices.

Specific Effluent Discharge and Load Data

The specific effluent discharge and load metrics for SAIL plants during 2024-25 are as follows:

Effluent discharge quality at the Outfalls:
Table: Effluent discharge quality at Integrated Steel Plant

Plant	Parameter															
	pH		SS		BOD		COD		Phenol		Cyanide		Oil & Grease		Amm. Nitrogen	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Norm	6.0-8.5		100 mg/l		30 mg/l		250 mg/l		1.0 mg/l		0.20 mg/l		10 mg/l		50 mg/l	
BSP	6.6	8.5	28	65	13	25	35	60	BDL	0.19	BDL	0.1	1.1	6.4	2	33
DSP	6.3	8.5	11	49	10	27	52	135	0.19	0.72	BDL	0.13	1.6	7.3	BDL	49
RSP	7.2	8.3	10	40	2	12	9	39	0.09	0.33	0.01	0.16	<2	3.2	0	16
BSL	6	8.4	1	32	3	9	10	111	0.04	<1	0.01	0.05	0.6	<2	1	9
ISP	6.8	7.9	6	57	<5	17	24	170	<0.1	0.21	0.02	0.16	<1	<4.0	<5.0	25

Table: Effluent discharge quality at Special Steel Plants

Plant	Parameter									
	pH		SS		Fe		F-		Cr ⁺⁶	
Norm	5.5-9.0		100 mg/l		3 mg/l		2 mg/l		0.1 mg/l	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
ASP	7.1	8.7	7	68	0.1	0.46	NA		<0.05	
SSP	7.2	8.1	4	25	<0.05		0.04	1.2	<0.05	
VISL	No discharge from plant outlet. Major production units like BF & SMS are not in operation									

Table: Effluent discharge quality at Special Steel Plants

Plant	Parameter									
	Ni		O & G		NH3 - N		BOD		COD	
Norm	3 mg/l		10 mg/l		50 mg/l		30 mg/l		250 mg/l	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
ASP	<0.01	0.02	2.1	<5	NA		5	11	30	49
SSP	<0.02	<2	<3		1	2	1	5	24	88
VISL	No discharge from plant outlet. Major production units like BF & SMS are not in operation									

Table: Effluent discharge quality at Chandrapur Ferro-alloy Plant

Plant	Parameter									
	pH		SS		Fe		F-		Cr ⁶	
Norm	5.5-9.0		100 mg/l		5 mg/l		2 mg/l		0.1 mg/l	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
CFP	7.1	8.3	63	98	0.19	0.72	NA		NA	

Table: Effluent discharge quality at Chandrapur Ferro-alloy Plant

Plant	Parameter									
	Ni		O & G		NH3 - N		BOD		COD	
Norm	3 mg/l		10 mg/l		50 mg/l		30 mg/l		250 mg/l	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
CFP	NA		BDL		NA		BDL	26	68	235

BDL: Below Detectable Limit
NA: Not Applicable
*Occasional shoot up brought under control



Newly constructed Treatment System (TS -1)
for treatment and recycling of effluent at RSP

Sustainability Through Recycling and Waste Management: A Circular Approach

The global shift towards addressing environmental challenges has cast a critical spotlight on the traditional "take-make-dispose" model, urging businesses, governments, and individuals to embrace sustainable alternatives. The steel industry, in particular, is uniquely positioned to lead this transformation. Recognizing this, SAIL has integrated the principles of the Circular Economy into its operations, creating closed loops for materials, energy, and waste while reducing environmental impact.

Steel: A Champion of Recycling

As the most recycled material worldwide, steel retains its essential properties through repeated processing. However, the steel production process generates by-products such as blast furnace (BF) slag, basic oxygen furnace (BOF) slag, mill scale, flue dust, and waste refractory bricks. These materials, when responsibly managed, can replace natural resources in various industries, aligning with resource efficiency goals and the broader Circular Economy framework.

The 4R's Policy: A Holistic Approach

To further sustainability, SAIL has adopted a comprehensive 4R's Policy—Reduce, Reuse, Recycle and Recover. This strategy focuses on deriving maximum utility from waste materials while minimizing waste generation and adhering to stringent

environmental regulations. Although procedures for reclaiming packaging products are not currently in place, the company ensures all by-products are responsibly handled and disposed of in environmentally safe ways.

Turning By-products into Resources

SAIL has implemented innovative measures to transform waste into valuable inputs:

- **Molten BF Slag:** Processed in Cast House Slag Granulation Plants (CHSGP) and fully utilized in the cement industry as a key input material, achieving 100% utilization.
- **BOF Slag:** Contains iron-bearing particles and is recycled internally in blast furnaces and steel melting shops as a substitute for limestone, and in sinter-making as a base mix.
- **Mill Scale and Lime/Dolo Fines:** Fully recycled through the sintering process, reintegrating them into steelmaking.

Impressive Achievements in 2024-25

During the fiscal year 2024-25, SAIL demonstrated its leadership in sustainability with the following accomplishments:

- **Solid Waste Management:** Approximately 710 kg per tonne of crude steel (tcs) was generated and the 100% utilization of Solid Waste milestone underscores the company's commitment to waste reduction.



Paver Blocks Manufacturing

(GRI 3-3, 306-1, 306-2, 306-4)

A Commitment to Sustainability

SAIL’s innovative recycling and waste management practices reflect a clear vision for sustainable steelmaking. By aligning with the Circular Economy and leveraging advanced technologies, the company not only optimizes resource efficiency but also

minimizes its ecological footprint. These efforts firmly establish SAIL as a pioneer in sustainable industrial practices, paving the way for a future where waste becomes a valuable resource, and environmental integrity is upheld.

Solid Waste Generation and Utilisation

a) Integrated Steel Plants (ISPs):

Type of Waste	Generation (T)	Utilisation (%)
BF slag	8885039	99
BOF slag	2572848	137*
BF Flue dust	258674	86*
BF Sludge	97326	39
BOF Sludge	253370	208*
Lime/Dolo Fines	786741	100
Mill scale	289800	94*
Refractory Wastes	26239	74
TOTAL	13170037	108*

* Excess utilization from legacy stock

b) Special Steel Plants (SSPs):

Plant	Generation (T)	Utilisation (%)
ASP		
EHF / AOD Dust	481	0
EHF Slag	2943	0
Grinding Dust	620	100
Mill scale	2108	96
Refractory Bricks	1471	72
Total	7623	48
SSP		
SGL Swarf	15	149*
Boiler Ash	1416	0
Steel Shot Dust	581	66
Mill Scale (HRM & APL)	1624	74
SMS Slag	46686	30
EHF Dust	2505	0
AOD Dust	2963	0
Grinding Swarf & Dust	490	0
Torch Cutting Bag house Dust & Caster Scale Pit	190	0
Refractory wastes	4503	0
TOTAL	60973	26

VISL (Operation of major production units suspended during 2024-25)

*Excess utilization from legacy stock

c) Chandrapur Ferroalloy Plant (CFP):

Plant	Generation (T)	Utilisation (%)
MnO Slag	6182	0
Si Mn Slag	83603	>100*
MCFeMn Slag	1608	0
Mn Ore Fines	37307	1
Coke Fines + Charcol fines	12314	0
Quartz Fines	1178	0
Flux Fines	2949	0
Iron Ore Fines	1330	0
GCP Sludge	7698	4
Total	154169	>100*

* Excess utilization from legacy stock

SAIL’s Commitment to Extended Producer Responsibility (EPR): Driving Plastic Waste Management

SAIL’s compliance with the Extended Producer Responsibility (EPR) a framework underscores its commitment to sustainable practices and responsible waste management. As a part of the EPR regime, all SAIL steel plants have successfully registered on the **Central Pollution Control Board (CPCB) portal** and obtained their respective **EPR registration certificates** in accordance with the amended Schedule-II Rule of the Plastic Waste Management (Amendment), Rules-2022.

EPR Obligations and Responsibilities

Under the EPR framework, **Producers, Importers, and Brand-owners (PIBOs)** bear the responsibility for ensuring environmentally sound management of their plastic packaging waste through:

- **Recycling:** Processing waste into reusable materials to extend its lifecycle.
- **Reuse:** Finding innovative ways to repurpose plastic without additional processing.
- **End-of-Life Disposal:** Methods include co-processing, waste-to-energy conversion, plastic-to-oil transformation, roadmaking, and industrial composting.

These measures not only mitigate environmental impact but also drive the adoption of sustainable practices across industries.

Import Processes and Plastic Packaging

SAIL plants rely on plastic packaging for imported items, primarily to:

- Prevent damage during transportation.
- Restrict moisture ingress to preserve material quality.

To facilitate seamless customs clearance, SAIL plants must upload their **EPR registration certificates** to the **Customs Portal**. Failure to comply would impede the clearance process for imported goods.

Aligning Industrial Practices with Sustainability Goals

SAIL’s adherence to EPR rules reflects its proactive approach to addressing plastic waste challenges while contributing to national efforts for sustainable development. By integrating responsible plastic waste management strategies into its operational frameworks, SAIL continues to lead the way in minimizing environmental impact and supporting circular economy principles. These initiatives not only position SAIL as a pioneer in resource stewardship but also reaffirm its dedication to fostering a sustainable industrial future.

R&D Initiatives: Expanding SAIL’s Waste Management Horizons

SAIL continues to advance its sustainability journey by embracing innovative R&D initiatives aimed at transforming waste into valuable resources. Through its in-house research wing and collaborations with premier research institutions, the company is expanding its waste management strategies to maximize the potential of the **"Waste to Wealth"** concept.

Revolutionizing Agriculture with Steel Slag-Based Fertilizers

A groundbreaking initiative under SAIL's R&D efforts is its role as an industry partner in a Ministry of Steel-sponsored project. This collaboration, conducted through ICAR-IARI, aims to develop eco-friendly, cost-effective fertilizers derived from steel slag. Key features of this project include:

- **Targeted Soil Issues:** Addressing acidic soils across approximately 49 million hectares of India's arable land, which poses a significant challenge to agricultural productivity.
- **Utilization of BOF Slag:** Leveraging the slag's rich content of lime and micronutrients, such as potassium, silicon, and phosphorus, to function as an effective soil amendment.
- **Nationwide Research:** Currently being tested at eight IARI centers across India, the study holds the promise of significantly boosting agricultural outcomes while aligning with sustainable practices.

Innovative Applications for Steel Slag

SAIL's longstanding expertise in utilizing steel slag extends beyond agriculture:

- **Internal Road Construction:** Slag has been a critical material for constructing roads within its facilities, reflecting resource efficiency.
- **Rural Road Development:** Active promotion of BOF slag in road construction under the Pradhan Mantri Gramin Sadak Yojana (PMGSY) demonstrates SAIL's alignment with national infrastructure goals.
- **Legacy Slag Utilization:** The company is also exploring avenues to deploy legacy BOF slag in **secondary markets**, enhancing its value recovery strategy.

Expanding Waste Management to Include Plastics

In line with its broader waste management commitments, SAIL is addressing the challenge of managing discarded non-recyclable plastic items. This approach ensures:

- Safe disposal practices for plastic waste.
- Alignment with circular economy principles to

convert waste challenges into meaningful opportunities.

A Model for Sustainable Growth

SAIL's R&D initiatives epitomize its dedication to innovative waste management and resource efficiency. By harnessing the potential of steel slag in agriculture, infrastructure, and secondary markets, coupled with proactive plastic waste management, SAIL is setting new benchmarks in sustainability. These efforts reflect the company's unwavering resolve to integrate circular economy practices into its operations, driving a future where waste transforms into a catalyst for growth and environmental stewardship.

Effective Management of Hazardous Wastes: SAIL's Holistic Approach

SAIL has established a robust and comprehensive system for managing hazardous wastes, emphasizing safe disposal, reuse, and compliance with international and national environmental standards. Recognizing the potential risks posed by hazardous wastes, SAIL has implemented innovative and transparent practices to ensure these materials are handled in an environmentally responsible manner.

Strict Adherence to Regulatory Guidelines

SAIL's hazardous waste management is governed by the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Key measures include:

- **Inventory and Quantification:** Comprehensive data collection across all plants and units to understand the scope and nature of hazardous waste generation.
- **Safe Disposal Practices:** Disposal through Secured Landfill Facilities or authorized agencies specializing in treatment, storage, and disposal of hazardous materials.
- **Reuse and Co-processing:** Certain hazardous wastes are reused or co-processed, integrating sustainability into waste management operations.

During the fiscal year 2024-25, approximately 3 lakh tonnes of hazardous waste were generated and disposed of, showcasing SAIL's commitment to environmental safety. SAIL has long ceased the use of ODS (Ozone Depleting Substance).

(GRI 3-3, 301-1, 301-2, 301-3, 305-6)

Sustainability Through Optimized Raw Material Management: A Strategic Vision by SAIL

As the steel industry grapples with the finite nature of essential resources like iron ore, coal, limestone, and dolomite, SAIL has taken a proactive approach to conservation and efficiency. Through innovative policies and practices, the company addresses the challenges posed by depleting high-grade ore deposits, underscoring its commitment to sustainable industrial growth.

Efficient Resource Utilization and Circular Economy

SAIL integrates cutting-edge technologies to minimize raw material consumption, utilize lower-grade resources, and enhance waste recycling. Key strategies include:

- **Ore Beneficiation:** Prioritizing the refinement of lower-grade iron ore to optimize resource efficiency.
- **Pelletizing Technology:** Transforming low-grade iron ore micro-fines, tailings, sludge, and ESP dust into valuable inputs for steelmaking, reinforcing circular economy principles.

SAIL’s investments in pelletizing technology demonstrate its forward-thinking approach to raw material management. Major projects include:

- **RSP:** 2 MTPA Pellet Plant
- **ISP:** 0.25 MTPA Micro-Pellet Plant
- **Gua Ore Mines:** 4 MTPA Pellet Plant
- **Dalli Mines:** 1 MTPA Pellet Plant

These initiatives will bolster SAIL’s capacity to maximize resource use while minimizing environmental impact.

Recycling and Scrap Management

SAIL recognizes recycling as the future of sustainable steelmaking and has made significant strides in internal scrap management:

- **Full Recycling:** All operational scrap is reintegrated into Sinter Plants, Blast Furnaces, and Steel Melting Shops.
- **Waste Repurposing:** Additional by-products are reused effectively, reducing dependency on virgin materials.

Resource Utilization Highlights (FY 2024-25)

SAIL’s operational data illustrates its efficiency in raw material usage:

- **Iron Ore:** 33.785 million tonnes produced from captive mines, meeting total requirements.
- **Coking Coal:** Of the 18.74 million tonnes consumed, 2.415 million tonnes were sourced indigenously, while imports accounted for the balance due to quality constraints.
- **Coal Production from Captive Collieries:** 0.686 million tonnes (0.588 MT raw coking coal; 0.98 MT non-coking coal).
- **Flux Materials:** 1.311 million tonnes of limestone and 0.404 million tonnes of dolomite produced from captive sources.

Scrap Utilization across Plants (2024-25)

Plant	Scrap Utilized (T)
BSP	4,20,240
DSP	1,26,672
RSP	3,15,075
BSL	3,88,916
ISP	92,606

These figures highlight SAIL’s efficiency in recycling operational scrap, reducing reliance on raw materials and minimizing waste.

Setting Industry Standards

By prioritizing the sustainable management of raw materials, recycling practices, and circular economy principles, SAIL sets a benchmark for responsible industrial operations. These initiatives not only contribute to environmental conservation but also strengthen the foundation for long-term resource resilience, positioning SAIL as a leader in sustainable steelmaking practices.

Tree Plantation Initiatives: SAIL’s Commitment to Environmental Sustainability

SAIL acknowledges the vital role of afforestation in combating environmental challenges and enhancing biodiversity. Trees serve as natural carbon sinks, producing oxygen, capturing carbon dioxide, supporting wildlife habitats, replenishing groundwater, enriching soil nutrients, and preventing erosion. To deepen its commitment to sustainability, SAIL has launched an array of structured plantation programs tailored to local environmental factors such as species availability, soil characteristics, and weather conditions.

Prominent Green Spaces

SAIL actively preserves biodiversity and contributes to environmental restoration by maintaining zoological and botanical parks, benefiting both ecosystems and local communities. Notable projects include:

- **Vasundhara Biodiversity Park (409 acres):** Located at Durgapur Steel Plant, this park serves as a haven for various flora and fauna species.
- **Ispat Nandan Vihar (1.5 acres):** Established at Rourkela Steel Plant, this green oasis provides a tranquil escape for residents.

Achievements in Tree Plantation

The scale of SAIL's afforestation initiatives is impressive:

- **Saplings Planted in FY 2024-25:** Around **3 lakh saplings**, contributing to the cumulative total of **22.4 million saplings** planted across SAIL's plants and mines.
- **Plantation Progress (Tree Plantation Data in Lakh):**
 - ♦ **2019-20:** 4.4
 - ♦ **2020-21:** 1.7
 - ♦ **2021-22:** 3.3
 - ♦ **2022-23:** 2.8
 - ♦ **2023-24:** 2.5
 - ♦ **2024-25:** 3.0

Alignment with the Green Credit Programme

SAIL has been registered in the Green Credit Portal program. To ensure the program is implemented effectively, a Central Core Committee has been established by SAIL's Competent Authority. This committee includes the program coordinator and nodal officers from the four states where SAIL's mining projects operate—Jharkhand, Odisha, Chhattisgarh, and Karnataka—along with other members.

SAIL has enrolled in the Green Credit Programme (GCP) of the Ministry of Environment, Forest and Climate Change (MoEFCC), enabling it to exchange Generated Green Credit (GGC) for compensatory afforestation obligations under the **Van Sanrakshan Evam Samvardhan Adhiniyam, 1980. Recent efforts include:

Following a meeting of the Central Core Committee, two plantation blocks were earlier booked: one block

of 25 hectares (Block/Reg No. 202) and another of 10 hectares (Block/Reg No. 249) in Mahasamund District, Chhattisgarh, totaling 35 hectares, however, out of the two applied blocks, one block of 25 hectares (Block / Reg No. 202) in District Mahasamund has been rejected by the GCP authorities due to specific issues. During the FY – 2024-2025, SAIL has again applied for additional two blocks covering an area of 25 ha (Block/Reg No. 1765) and 15 ha (Block / Reg No. 1645) based on following parameters:

- **Proximity to the SAIL Plant / Mines** – The selected blocks are closer to the BSP, Bhilai, and Dalli Rajhara Mines compared to other plantation blocks in other districts of Chhattisgarh available on GCP portal.
- **Density of the block** – The current density of the 10-ha block is good enough to undertake the afforestation program in accordance with GCP Rules.
- **Presence of Water Body:** The presence of a water body near the 25-ha block, which is expected to maintain soil fertility and good plantation.

The application for 3 blocks totalling 50 ha is currently in process, with the applied blocks having been accepted by the authority. The issuance of a demand note for payment is underway. Once the demand note is issued, SAIL will proceed with the necessary payment for the authority's further action.

Carbon Sequestration and Partnerships

SAIL is estimating the carbon sequestration potential of existing and proposed plantations as part of its strategy to assess and reduce the carbon footprint of its products, processes, and activities. Collaboration with partners such as the **Tropical Forest Research Institute, Jabalpur** has enabled studies on carbon capture through afforestation, with successful implementation at the Rourkela Steel Plant.

Eco-Restoration and Biodiversity Enhancement

SAIL's commitment to restoring degraded landscapes reflects its vision for ecological rehabilitation. Key initiatives include:

- **Successful Restoration:** Rehabilitation of degraded ecosystems around Purnapani Limestone Mines in Odisha.

- **Current Projects:** Eco-restoration efforts at Meghahatuburu and Kiriburu Iron Ore Mines, supported by a partnership with the **Institute of Forest Productivity, Ranchi** under an active MoU.



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A Future Rooted in Sustainability

Through these extensive afforestation and eco-restoration initiatives, SAIL demonstrates its resolve to merge industrial progress with environmental stewardship. By focusing on biodiversity, carbon sequestration, and community engagement, the company sets an inspiring benchmark for industrial sustainability and long-term ecological balance.

Implementing an Environmental Management System (EMS): SAIL's Blueprint for Sustainability and Efficiency

To advance operational excellence and embed sustainability within its core practices, SAIL has integrated global management standards, including **ISO 9001, ISO 14001, ISO 45001, and SA 8000**, across its steel plants, mines, and units. The company has been a pioneer in establishing Environmental Management Systems (EMS) compliant with **ISO 14001**, showcasing its dedication to minimizing both immediate and long-term environmental impacts.

The Evolution of EMS at SAIL

SAIL's commitment to environmental stewardship began in the mid-1990s, with the **Salem Steel Plant** leading the charge in EMS implementation. Since then, the initiative has expanded to encompass all **integrated steel plants, major units, and warehouses**, solidifying SAIL's position as an industry leader in sustainability.

Effectiveness and Impact

The EMS framework has consistently demonstrated its value by:

- Ensuring that environmental performance meets or exceeds regulatory requirements.

- Streamlining operations to reduce waste, conserve resources, and mitigate environmental risks.

ISO 14001 Accreditation: A Snapshot

SAIL’s efforts have resulted in widespread ISO 14001 certification, reflecting its comprehensive commitment to environmental management across operations:

Plants	Certification Status	Mines/Units	Certification Status
Bhilai Steel Plant (BSP)	Entire Plant & Township	Kiriburu Iron Ore Mine	Entire Mine
Salem Steel Plant (SSP)	Entire Plant & Township	Meghatuburu Iron Ore Mine	Entire Mine
Bokaro Steel Plant (BSL)	Entire Plant	Bolani Ores Mines	Entire Mine
Ispat Steel Plant (ISP)	Entire Plant	Barsua Iron Ore Mine	Entire Mine
Alloy Steel Plant (ASP)	Entire Plant	Gua Iron Ore Mine	Entire Mine
Durgapur Steel Plant (DSP)	Entire Plant	Manoharpur Ore Mines	Entire Mine
Visvesvaraya Iron & Steel Ltd (VISL)	Entire Plant	Dalli (Mechanical) Iron Ore Mine	Entire Mine
Chandrapur Ferro Alloy Plant (CFP)	Entire Plant	Transport and Shipping	BTSO Vizag
Rourkela Steel Plant (RSP)	Various Units and Township	Warehouses under CMO	Various Locations

Commitment to Sustainability

By integrating EMS principles throughout its operations, SAIL ensures:

- Improved resource efficiency and environmental performance.
- A structured approach to identifying, managing, and mitigating environmental risks.

Driving Toward a Greener Future

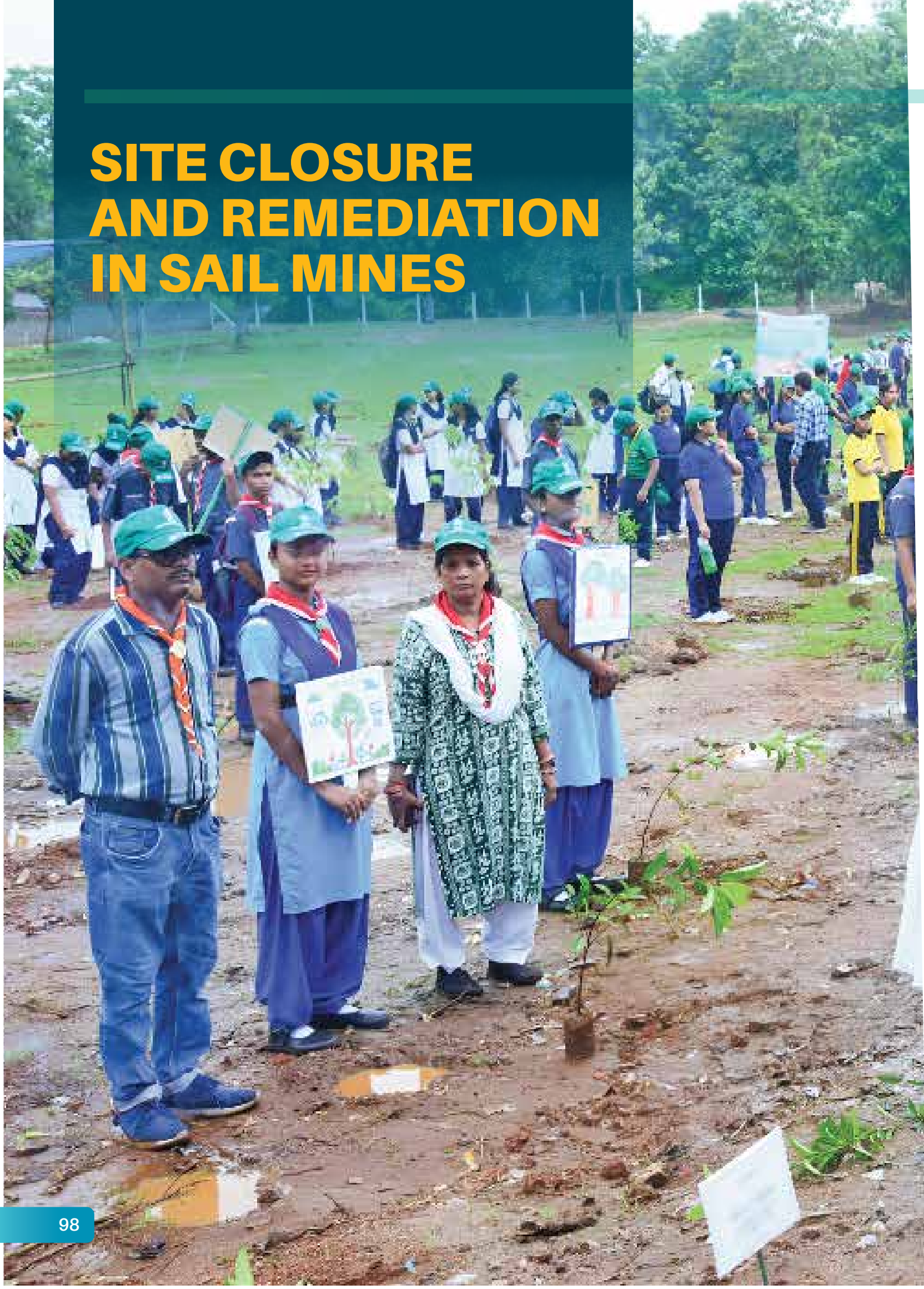
SAIL’s environmental management practices reflect a forward-thinking vision for sustainability. By aligning with internationally recognized standards, the company not only reduces its ecological footprint but also sets a benchmark for responsible industrial operations. These efforts underscore SAIL’s commitment to harmonizing progress with environmental stewardship, building a more sustainable future for generations to come.



Plantation on Overburden Dump at Bolani Iron Ore Mines



SITE CLOSURE AND REMEDIATION IN SAIL MINES





Site Closure and Remediation in SAIL Mines

(GRI 3-3, 304-1, 304-4)

SAIL has been actively engaged in mining operations to secure the raw materials essential for its integrated steel plants. Iron ore, the primary raw material for steel production, is extracted from SAIL's captive mines primarily located in the states of Jharkhand, Odisha, and Chhattisgarh.

To meet the flux requirements for steelmaking, SAIL sources limestone and dolomite from its mines in Chhattisgarh and Madhya Pradesh. Additionally, coal—used both as a fuel and a reducing agent in the steelmaking process—is partly procured from the company's captive coal mines situated in Jharkhand and West Bengal.

As a Public Sector Undertaking under the Government of India, SAIL conducts its mining operations with a strong commitment to environmental sustainability and social responsibility. The company strictly adheres to all statutory and regulatory compliances and places high emphasis on rehabilitating the forest cover impacted by mining activities. SAIL has undertaken numerous initiatives aimed at environmental protection, ecological restoration, and community development. Through continuous efforts in innovation, sustainable practices, and inclusive growth, the company remains steadfast in its mission to balance industrial progress with environmental stewardship and social well-being.

SAIL is not operating its activity in the vicinity of protected areas. No species from the International Union for Conservation of Nature (IUCN). Red List has habitat in the area of operation.

Regulations pertaining to Site Closure and Rehabilitation

(GRI 3-3, 304-3)

The Ministry of Mines, Government of India, serves as the apex body responsible for governing mining operations across the country. Before commencing any mining activity, a comprehensive Mine Plan must be prepared. This plan details the full lifecycle of the mine, from development to eventual closure, and is subject to approval by the Indian Bureau of Mines (IBM) — a key regulatory agency under the Ministry of Mines tasked with overseeing the systematic development and conservation of mineral resources in India.

A critical component of responsible mining is the formulation and implementation of a Mine Closure and Rehabilitation Plan, mandated by guidelines established by the Ministry of Mines. These guidelines ensure that all mining operations conclude in a manner that is safe, environmentally sound, and socially responsible.

As part of the Mine Plan, a Progressive Mine Closure Plan (PMCP) must be developed and submitted for approval to the IBM. This plan outlines the measures to be undertaken for land restoration and rehabilitation progressively, in parallel with ongoing mining operations. The PMCP is a living document, designed to be updated periodically throughout the operational phase of the mine, ensuring that closure objectives are consistently integrated into the mining process.

Upon the depletion of mineral resources and the conclusion of mining operations, a Final Mine Closure Plan is implemented. This plan ensures that all pits and related infrastructure are closed in a secure and



sustainable manner, with due regard to safety and environmental regulations.

Following mine closure, rehabilitation activities are initiated to restore the mined land to a stable and productive condition. These activities may include re-contouring of the landscape, re-vegetation with native flora, soil stabilization, and the implementation of erosion and sediment control measures. The overarching objective of rehabilitation is to facilitate sustainable post-mining land uses — such as agriculture, forestry, or the creation of pit lakes — that can contribute meaningfully to the local economy and ecosystem.

In essence, the structured approach to mine planning, closure, and rehabilitation as mandated by the Ministry of Mines and enforced by the Indian Bureau of Mines reflects India's commitment to sustainable mining practices and environmental stewardship.

Mines Restoration and Rehabilitation Activities

(GRI 3-3, 304-2, 304-3)

All the working mining leases of SAIL are currently operational based on the approved mining plan which also covers PMCP. Most of the mining leases are still in operations for decades and complete exhaustion has not reached. However, SAIL has undertaken restoration and rehabilitation activities in some of its mines which are discussed below:

Kiriburu-Iron Ore Mines, Jharkhand: During FY 2024-25, an area of 1.5 ha was restored at Kiriburu Iron Ore Mines. Cumulatively, 8.0 ha of mined-out land has been reclaimed and rehabilitated. In partnership with IFP Ranchi, 2,562 saplings were planted under gap-filling and replacement activities during the year.

Meghahatuburu Iron Ore Mines, Jharkhand: In FY 2024-25, plantation was undertaken over 5.0 ha of backfilled area, bringing the total rehabilitated area to 15.2 ha. Key initiatives include:

- Installation of a 20 kW on-grid rooftop solar power plant at Guest House-II, the first of its kind in JGOM, BSL.
- Development of a fruit orchard over 0.5 ha near Meena Bazar.
- Plantation on World Environment Day 2024 featured fruit-bearing species (Amla, Jackfruit, Jamun) and ornamental plants (Bottle Palm, Areca Palm).
- Construction of three catchment area treatment (CAT)/soil erosion control structures near the loading section to mitigate runoff-related erosion.

Bolani Ore Mines, Odisha: Approximately 4.0 ha of area was restored or rehabilitated in FY 2024-25,

contributing to a cumulative total of 219.0 ha. Additional efforts included:

- Plantation on 3.0 ha of degraded land within the lease area.
- Stabilization of overburden dumps using geo-textile coir mats.
- Further plantation over 1.0 ha of stabilized dump area.

Barsua Taldih Kalta Amalgamated Lease, Odisha:

In FY 2024-25, 5,100 saplings were planted under gap-filling within the mining lease. Backfilling activities have cumulatively covered 7.8 ha to date.

Purnapani Limestone Mines, Odisha:

Purnapani Limestone & Dolomite Quarry (ML-153), spread across 230.525 ha, was granted to Rourkela Steel Plant (RSP) of SAIL in 1960. Mining was suspended on 01.03.2004 due to unsuitability of limestone for steelmaking. Subsequently, SAIL initiated a model ecological restoration project in collaboration with the Department of Biotechnology (DBT), Government of India, and the University of Delhi.

Under this pioneering project:

- A 200-acre degraded site was successfully restored into a native tropical forest ecosystem, featuring diverse plant communities including grasslands, bamboo thickets, and broad-leaved forests.
- The restored ecosystem now supports high biodiversity, enhances groundwater recharge, and produces ecological goods such as fodder and minor forest products.
- A former deep mine void has transformed into a biologically productive water body, now supporting fishing-based livelihoods.
- Restoration improved soil nutrient levels and immobilized heavy metals, leading to no observable soil erosion and clean surface and groundwater.
- The below-ground biodiversity—encompassing bacteria, fungi, and insects—was found to be richer than that in natural forest ecosystems, highlighting the project's ecological success.

Pandridalli and Rajhara Hills Lease, Chhattisgarh:

24.48 ha area has been rehabilitated through dense plantation.

Rajhara Hills Lease, Chhattisgarh: 9 ha area has been restored through stabilization of Dump through

Geo-Textile Coir matting in part of inactive waste dump of Dalli Mechanised mines.

Dalli Forest Range, Chhattisgarh: 8.7 ha area has been rehabilitated through dense plantation.

Mahamaya Dulki Lease, Chhattisgarh: 2 ha area has been rehabilitated through dense plantation.

In addition to the aforementioned best practices, SAIL diligently adheres to all applicable environmental laws and regulations, including the Environment (Protection) Act, 1986, and the Forest (Conservation) Act, 1980. The company has obtained the requisite Environmental Clearances (EC) and Forest Clearances (FC), wherever applicable, for the operation of its mines.

These clearances are granted subject to a range of conditions aimed at ensuring that mining activities are conducted in an environmentally sustainable and responsible manner, with appropriate safeguards to minimize potential adverse environmental impacts. SAIL is fully committed to complying with these stipulated conditions.

As part of its regulatory obligations, SAIL regularly submits self-compliance reports to the concerned regulatory authorities, providing updates on the environmental status of its mining projects and demonstrating adherence to the prescribed safeguards. To maintain transparency and public accountability, these reports are also made available on the official SAIL website and can be accessed at the following link:

<https://sail.co.in/en/plants/raw-materials-division>

Challenges faced by SAIL in implementation of Rehabilitation Plan

While comprehensive guidelines for mine closure and rehabilitation are in place in India, effective enforcement and on-ground implementation remain a challenge. Scientifically and technically, backfilling and land reclamation can only commence after the complete extraction of ore within the mining lease area, and such activities require prior approval from the Indian Bureau of Mines (IBM).

Most of SAIL's iron ore mines are currently in active operational stages, where mining is ongoing and mineral extraction is yet to be fully completed. Reclamation and biological restoration of these areas can only begin once the mineral deposits are entirely exhausted, typically towards or at the end of the mine's operational life. As a result, the scope for full-scale reclamation and rehabilitation is currently limited, and only selected areas—where ore extraction has been completed—have been reclaimed from the already diverted land.

Nevertheless, all operating mines under SAIL are undertaking concurrent reclamation activities in line with the Progressive Mine Closure Plans (PMCPs) approved by IBM. These efforts are focused on progressively restoring mined-out areas as and when they become available. However, it is important to note that complete depletion (or bottoming out) of the mineral deposits across these mines has not yet occurred, and therefore, full-scale mine closure and final landform restoration are still pending for most of the leases.



Stabilisation of Overburden Dump by laying Geo Textile Coirmat at Bolani Iron Ore Mine





PRODUCT DEVELOPMENT AND ENRICHMENT



Steel Authority of India Limited (SAIL), one of India's largest state-owned steel producers, plays a vital role in the nation's industrial development. Central to its innovation efforts is the Research and Development Centre for Iron and Steel (RDCIS) in Ranchi—India's premier research institution in ferrous metallurgy.

Recognizing that technological innovation is key to sustainable growth, SAIL has invested significantly in RDCIS. The Centre designs and implements multidisciplinary R&D programs across SAIL's Plants to enhance quality, productivity, and yield. Its research spans the entire steelmaking process, from raw materials to finished products.

RDCIS is instrumental in driving technological advancement and process innovation. Its focus includes improving production efficiency, enhancing product quality, and promoting environmental sustainability. Strategic initiatives emphasize decarbonisation, circular economy practices, and better waste utilization. Efforts are also underway to increase the use of indigenous and soft coal, reduce reliance on imports, and optimize processes for cost efficiency through in-house system development.

These R&D efforts are grounded in fundamental research and aim to foster sustainable technologies while strengthening long-term operational resilience. By prioritizing innovation and self-reliance, SAIL not only boosts its market competitiveness but also

contributes to India's broader goals of industrial growth and technological leadership.

Collaborations and Partnerships

SAIL is committed to expanding its R&D activities in alignment with the government's vision of "Make in India" and "Atmanirbhar Bharat" (self-reliant India). SAIL successfully developed several specialized steel products, including Weather-resistant steel for bridges and infrastructure, High-strength rails for Indian Railways, Steel for defense applications, including armored vehicles and naval platforms, automotive-grade steel, meeting the requirements of global car manufacturers. These innovations have helped SAIL not only reduce import dependency but also compete effectively in domestic and international markets.

Future goals include adopting Industry 4.0 practices, expanding digitalization, and focusing on green steel production to meet global environmental standards. To enhance its R&D capabilities, SAIL collaborates with national and international institutions, such as Indian Institutes of Technology (IITs), Defence Research and Development Organisation (DRDO), Ministry of Steel, Global steel technology partners. These collaborations have facilitated knowledge exchange, joint projects, and faster adoption of advanced technologies.



Steering Innovation

In order to steer innovation and drive technical growth across its operations, SAIL has constituted a Research Council. The Council plays a pivotal role in shaping the Company’s research agenda by prioritizing key areas of innovation and formulating strategic research directions. It is also responsible for evaluating and approving research projects to ensure alignment with organizational goals and technological advancement. Additionally, the Council facilitates collaboration and partnerships with academic institutions, industry experts, and research organizations to foster knowledge exchange and accelerate the development of cutting-edge solutions.

For the FY 2024-25, the Research Council has put forth several strategic recommendations to enhance the effectiveness and future-readiness of RDCIS. The key recommendations are aligning RDCIS’s vision

closely with the overarching vision of SAIL to ensure coherence in innovation goals. The Council also advocates for restructuring RDCIS by introducing new verticals tailored to emerging industrial and technological needs. Emphasis is placed on advancing initiatives in de-carbonization and the circular economy, positioning SAIL as a leader in sustainable steelmaking. To support these initiatives, the Council underscores the importance of robust human resource planning, including finalizing a minimum sanctioned strength that aligns with the company's growth trajectory. Further, it recommends the monetization of RDCIS’s technical services beyond internal projects to generate additional value. Lastly, enhancing collaboration and expanding skill training programs are seen as essential steps to build internal expertise and foster a culture of continuous innovation.



New Plate Mill of RSP

Research Thrust Areas during FY 2024-25

SAIL’s identified strategic direction for R&D focuses on exploring advanced materials and processes, including the development of next-generation steels tailored to evolving market trends and customer needs. Emphasis is placed on sustainable solutions through research aimed at reducing the carbon footprint and enhancing recycling methods. Strengthening technical capabilities, the plan includes establishing NABL-accredited laboratories and calibration centers, along with developing certified reference materials for steel. Improving raw material efficiency, boosting cost competitiveness, and driving customer-centric innovation are key priorities. Additionally, the strategy highlights the importance of digital innovation, upgrading laboratories with state-of-the-art facilities, and investing in human resource development to support cutting-edge research.

In addition, a new initiative to address the immediate R&D needs of its stakeholders, RDCIS has introduced the concept of Technical Assignments starting January 2025, complementing its ongoing portfolio of high-impact projects. These assignments aim to provide focused, agile, and value-driven support across multiple domains. RDCIS is actively engaging in research consultancy for steel Plants and Units, offering testing services to support process and product optimization. Additionally, it extends advisory and knowledge management services to the SAIL Corporate Office, government agencies, BIS, and other strategic partners. As part of its outreach and collaboration efforts, RDCIS is also advancing technology marketing to organizations beyond SAIL, reinforcing its role as a national leader in steel R&D and innovation.

Research Thrust Areas for 2025-26 and beyond

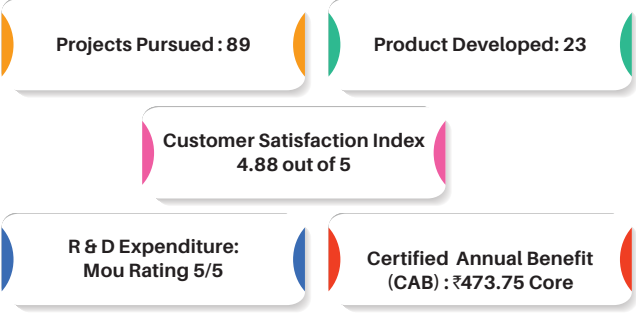
The R&D roadmap for 2025–26 and beyond focuses on transformative technologies to advance sustainability, efficiency, and innovation in steelmaking. A major thrust is on hydrogen-based ironmaking, with the execution of the ‘Hydrogen Injection in Blast Furnace’ project at BSL and the establishment of a lab/pilot-scale hydrogen-based DRI unit. Pathways for Carbon Capture and Utilization

(CCU) are being explored, including process and system designs to capture CO₂ for BOF GCP water treatment and its utilization as a bottom stirring gas in BOF, replacing Argon/Nitrogen. Advanced product development is also a priority, with ongoing efforts to develop corrosion-resistant heat-treated rails (R350HTNC) supported by the setup of simulators for heat treatment and welding. Process design improvements across steelmaking, rolling, heat treatment, and welding aim to enhance quality and reduce production costs. This includes the redesign of alloy chemistries and process parameters, alongside the development of a cost-effective Ferro Alloy Model, positioning the sector for greater competitiveness and self-reliance.

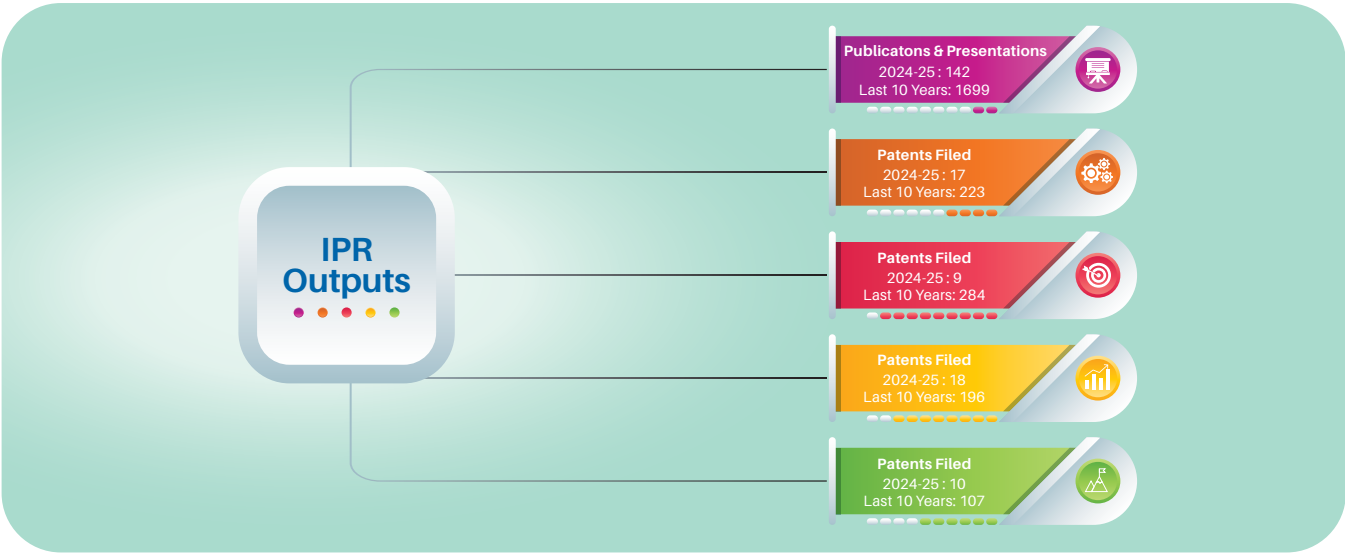
Key Achievement during FY 2024-25

As a central nodal agency for Ministry of Steel (MoS) assisted R&D initiatives, the R&D Center provided comprehensive support in project management, coordination, monitoring, and review of all funded projects—oversaw 23 ongoing and 13 new projects. Our Research Centre also managed fund disbursement for these initiatives, ensuring timely and efficient execution. In support of steel import regulation, provided technical expertise for No Objection Certificate (NOC) decisions, contributing to the resolution of over 5,000 cases and helping prevent spurious steel imports. These efforts align with the vision of “Atmanirbhar Bharat” by promoting indigenization across the steel sector.

In the area of standardization, actively participated in 18 BIS technical committees through 36 representatives. Notably, MTD#4 was honored with the “Committee of the Year” award for its outstanding contributions. The efforts resulted in the formulation of 44 new Indian Steel Standards and the amendment of 23 existing ones, reinforcing quality and consistency across the steel industry.



Intellectual Property Rights



Products Developed

(GRI 3-3, 417-1)

SAIL’s focus on research and development has been instrumental in its journey towards becoming a technologically advanced and globally competitive steel producer. By continuously developing new products and improving existing processes, SAIL is contributing significantly to India’s industrial and infrastructural growth, while also paving the way for sustainable steel production.

During the reporting period, SAIL has successfully developed several specialized steel products through

its R&D efforts, including Weather-resistant steel for bridges and infrastructure, High-strength rails for Indian Railways, Steel for defense applications, including armored vehicles and naval platforms, automotive-grade steel, meeting the requirements of global car manufacturers. These innovations have helped SAIL not only reduce import dependency but also compete effectively in domestic and international markets. For the FY 2024-25, SAIL identified 17 products for development, however concerted efforts resulted in successful development of 23 products detailed below:

Applications of the Products developed

Sl. No	Product Details	Application
Rourkela Steel Plant		
1	IS15914 HS345 2.2 mm HR Coil	LPG Cylinder
2	API X52 HR Coil through Non -RHOB Route	Oil & Gas Line Pipe
3	E350 HR Coil WMA	General Engg./ Hollow Sections
4	ASTM A572 Gr. 65 with Low Si: 0.06% or lower	Monopole
5	IS 2062 E450BR HR Coils with Cu (Non-RHOB route)	Wagon Building
6	IS 11587 WR-Fe490H (SAILCOR) HR Coils (5/6 mm)	Container Industry
7	ASTM A537 Cl.2 Q&T Plates (14/18/20x2000 mm)	Boiler/ Pressure Vessel
8	IS 2062 E350BR HRC in thinner gauge (2/ 2.5 mm)	Solar/ General Engg.
9	SAILFORMING IS 5986 ISH540R HR Coils	Axle Manufacturing
Bokaro Steel Plant		
1	Mn-B Steel (22MnB5/ 28MnB5)	Agriculture Sector/ Auto Sector
2	E350BR and Equivalent Grades with Low Si: 0.06% max. and lower	Monopole

Cont...

Sl. No	Product Details	Application
Bhilai Steel Plant		
1	R350HT grade rails in 260-metre welded panels	Rail Track
2	TMT HCR Fe550D, 8-32 mm	Construction
3	TMT EQR Fe550D	Construction
4	IS 2830 C25HMnV65 Semis	High Tensile Structural
	Product Details	Application
5	20MnCr5/ EN8D Degassed Blooms	Forging
IISCO Steel Plant		
1	LRPC Wire Rods	Construction
2	Vacuum Degassed Medium Carbon Wire Rods (EN8D/ EN8DCr)	Auto
3	NPB 350x170 / WPB 340 / WPB 450 Rolled Sections	Infrastructure
4	Universal Rolled Sections – UB & UC as per BS EN 10365	Infrastructure
5	SAILSeQR Fe550D TMT in 32mm	Construction
6	Wire Rod Coil SAE 1005 in 6mm	Cable Armour
Durgapur Steel Plant		
1	LHB axle from 370 mm BRC rounds	LHB Wagon Carriage

The research and development expenditure charged to statement of Profit and Loss and allocated Fixed Assets/Capital work in progress (Net), during the year, amount to ₹209.39 crore(₹239.47 crore during the previous Year) and ₹ 30.14 crore (₹ 67.61 crore during the previous Year) respectively. The detailed breakdown of research and development expenses is outlined below:

(In ₹ Cr)

Head of Account	For the Year ended	
	As at 31 st March, 2025	As at 31 st March, 2024
Raw Materials	52.29	75.72
Employees Benefits Expense	72.38	80.49
Stores & Spares Consumed	21.65	6.10
Power & Fuel	6.16	6.94
Repairs & Maintenance	4.99	5.06
Depreciation and Amortisation Expense	8.24	8.22
Other Expenses	42.45	55.30

Procurement on GeM Portal

(GRI 3-3, 204-1)

SAIL further scaled up its procurement of Goods and Services through Government e-Marketplace (GeM) in FY 2024-25, by achieving a total procurement value of ₹10841.67 crore, including ₹1813.39 crore of Services. While the total Goods & Services registered a growth of about 4%, Services were higher by about 76% over the previous financial year, SAIL's procurement from MSE's in FY 2024-25 is placed in the table below:

SAIL's procurement from MSE's in FY 2024-25 is placed below:

Particulars	Target (%)	Actual (%)
Total Procurement from MSEs(General, SC/ST & Women)#	25	45.68
Procurement from SC/ST MSEs	4	0.33
Procurement from Women owned MSEs	3	1.65

for materials & services procurement but without considering imports, proprietary add high value items which cannot be produced from MSEs.

SAIL is continuously making endeavors to develop new MSE vendors and provide support to local MSEs by mentoring, training, handholding and providing technical support to such MSEs in their chosen areas of functioning. In this regard, SAIL Plants and Units conducted 56 Vendor Development Programs during FY 2024-25. Vendor Development Programs were also conducted especially for SC/ST and Women MSME vendors, to inform them about the opportunities, item requirement and vendor registration procedures in the organization.

Product and Service Labelling

(GRI 3-3, 417-1)

The Company's website, www.sail.co.in, provides comprehensive product information. For TMT bars, SAIL has implemented QR coding on stud-welded tags attached to each bundle, enabling users to scan through an app and access detailed chemical and physical properties. Similarly, products like PM Plate feature information on size, grade, and technical delivery conditions directly on the product. Additionally, at specified sales offices and warehouses, hard copies of catalogues containing details on grade, size, and application are readily available for customers.

The delivery of products adheres to the two fundamental principles of Quality and Transparency. To guarantee both quantity and quality of the supplied material, the Company provides test certificates along with deliveries to customers. Strict adherence to established norms for physical dimensions and chemical composition is maintained throughout the production and dispatch of various products manufactured by SAIL.

There was no incidence of non-compliance with respect to regulations and voluntary codes concerning product and service information and labeling.

Customer Satisfaction

SAIL's customer satisfaction strategy is built on delivering quality, customization, innovation, and sustainability while fostering strong relationships through excellent customer service and reliable performance. By continuously improving its processes and staying attuned to the needs of its customers, SAIL remains a trusted partner in the global steel industry, committed to delivering exceptional value to its

customers. SAIL prioritizes strong communication with its customers, ensuring that they receive consistent updates on product availability, delivery schedules, and technical assistance.

Aligning itself with the market expectations, SAIL has redefined the roles and responsibilities of the Application Engineers who will be committed towards customer services inter-alia covering solutions to technical issues of customers in usage of SAIL Steel; understanding customers' current and evolving needs & identification of new areas / new applications for usage of SAIL Steel; association in development of new products and promotion of SAIL Steel products.

For Customer Complaints: Robust systems have been put in place to address the grievances of the customers across SAIL. The customers can lodge Quality Complaint (QC) following which the material under QC is inspected by the Branch Executive. SAIL extends help of regional AE (Application Engineer) or respective Plant to the Branch Executive to aid and expedite the process, if required. Based on the genuineness of complaint, return order and subsequent refund is issued to the customer to ensure the trust of the customers.

For Feedback: AI based Chatbot 'SAIL SARATHI' has been introduced for facilitating easier navigation & information accessibility for customers and visitors. SAIL has opened a verified business account on WhatsApp. The WhatsApp account is integrated with SAIL SARATHI APP. A customer contact app with the name "SAIL Grahak Sampark" has been launched by CMO to streamline, organize and maximize Customer Meetings by CMO Executives. Customer feedback also goes into forming the basis for product improvement, product, and services development necessary for customer retention, market penetration, and growth.

Moreover, monthly Customer Satisfaction report is taken from all Key Account Customer. In addition service performance feedback is taken at servicing points like warehouses on monthly basis. In addition to this, customer Feedback Form is also available at SAIL's website: https://www.sail-steel.com/cust_enq/feedback.jsp. Online Feedback is taken w.r.t product (viz: quality, dimensional tolerance, surface finish and packing) and Quality of service (viz: service relating to issuance of Delivery Order, enquiry, issuance of credit

notes, time taken for truck turnaround in warehouse). For FY 2024-25, our CSI was around 96.88%.

Integration with SBI for payments from customer receipts has been done leading to instant accounting for the same in our SAP system.

SAIL, for the first time, has finalized Contract Manufacturing with M/s NMDC Steel Ltd. for sales of HR products which will lead SAIL to meet varied customer requirements with a diversified size-mix, expand the customer base, higher customer satisfaction, and strengthen SAIL's presence in various important segments.

Health & Safety of Customers

(GRI 3-3, 416-1, 416-2, 417-1, 417-2, 417-3)

SAIL is committed to providing the highest level of service to our customers by implementing best practices and procedures that ensure the health and safety of all stakeholders. Steel products are generally safe for use and pose no inherent health or safety risks, so specific procedures for customer health and safety during product use are not required. However, material handling remains a key safety concern, and we mandate the use of appropriate safety equipment, such as helmets, gloves, and boots, in our warehouses.

All of our products comply with Bureau of Indian Standards (BIS), and we issue Technical Certificates (TC) for products as per the prescribed BIS guidelines. We have had no instances of non-compliance with health and safety regulations or voluntary codes during the reporting period.

Regarding hazardous waste, we adhere to the Hazardous Waste Management Rules, 2016, and all of our plants, units, and mines have the necessary authorizations for handling such materials. Throughout the lifecycle of our products and services, we ensure strict compliance with health, safety, and environmental regulations, with no non-compliance incidents reported.

Online Publication and Data Privacy

(GRI 3-3, 206-1, 417-3, 418-1)

To reduce paper usage, SAIL has transitioned to digital versions for PR publications. We are committed to protecting the sensitive information shared by our

stakeholders and maintaining their trust. Our corporate policies on data privacy, confidentiality, and security are designed to safeguard the information we collect. Consumer data, such as specifications for customized products, is protected through confidentiality agreements.

In the 2024-25 period, there were no incidents of non-compliance with regulations or voluntary codes related to marketing communications, advertising, promotions, or sponsorships. We received no complaints regarding breaches of customer privacy or data loss, and no fines were imposed for non-compliance with laws and regulations concerning the provision or use of products and services. Additionally, there were no instances of anti-competitive behavior or violations of antitrust and monopoly legislation.

SAIL is continuously implementing measures to enhance cyber security and there have been no information security breaches in the FY 2024-25.

Supply Chain Management

(GRI 3-3, 308-1, 414-1, 414-2)

At SAIL, we view ourselves not just as a company, but as an interconnected community — encompassing our Iron and Steel Plants, suppliers, and key stakeholders — all united in our pursuit of a cleaner, more sustainable future. We recognize that our products have enduring life cycles, and with that comes a responsibility to manage their environmental and social impacts at every stage, from production to end-of-life. Our commitment to sustainability extends well beyond our operational footprint, reaching into the broader ecosystem in which we operate.

We actively collaborate with suppliers, vendors, and other partners to foster awareness and accountability around ethical practices, human rights, and environmental stewardship across the entire product life cycle. Our Corporate Environmental Policy forms the cornerstone of our sustainability efforts, reinforcing our pledge to manage resources, processes, and services with environmental and social responsibility.

To minimize our environmental impact, we emphasize rail transportation for moving both raw materials and

finished products. Compared to road transport, rail offers greater efficiency and significantly lower emissions, aligning with our sustainability goals. While road transport is occasionally necessary to meet specific logistical demands — particularly for last-mile delivery from warehouses to customers — we ensure that all transportation methods adhere strictly to health, safety, and environmental standards. In FY 2024-25, we recorded zero instances of regulatory non-compliance.

We require all our value chain partners to commit to human rights principles, and we take a zero-tolerance approach to violations — any breach results in the termination of business ties. Our major suppliers, particularly international coal providers, already operate under robust human rights standards, and we have identified no significant risks or violations during the reporting period.

In essence, SAIL's approach to sustainable growth is deeply integrated into our operations, partnerships, and policies. Through focused programs, active stakeholder engagement, and unwavering regulatory compliance, we continue to advance our environmental and social responsibility goals. Our strategic use of rail logistics and proactive management practices are key drivers in building a more resilient and sustainable enterprise.

Striving Towards Zero Effect on Environment

(GRI 3-3, 308-2)

Steel itself has minimal environmental impact, but at CMO, we continuously assess our products, processes, and services to mitigate any potential effects. In our efforts towards meeting requirements of international standards for environmental management systems of ISO 14001, we are in the process of converting all our warehouses as per ISO 14001 standards. Presently, seventeen (17) of our warehouses have been certified under ISO 14001 for environmental management, reflecting our commitment to sustainability.

Solar Power Plants have been installed and commissioned at 9 warehouses throughout CMO thus moving towards clean and renewable energy thus reducing carbon footprints and having a modest

reduction in environmental impact. Total installed capacity of the Solar Power Plants is 1460 KW and commissioned is 1160 KW. We are also in process of adding 2 more solar installation which will be installed and commissioned shortly.

Plantation drive is taken on a monthly basis at all warehouses with almost 93% survival rate of the 1044 Plants and saplings planted throughout the year to increasing the green cover in an otherwise dry industrial land. Bio Toilets have been installed in one of warehouses in association with State Government. Plastic and melamine cups have been replaced in warehouses offices by using Steel cups or paper cups.

Our environmental measures include road and hardstand upgradation and maintenance to reduce damage to trailer/trucks/cranes moving around in the warehouses as well reduce dust cover which not only ensure clean steel material is given to customers, it also ensures pollution free atmosphere for the employees working in warehouses, replacing wooden railway sleepers with concrete ones, recycling used oil, Old Oil disposal as per standard practices, converting vacant plots into flower gardens, using energy-efficient lighting, installing rainwater harvesting systems, and equipping DG sets with acoustic covers, all are the few steps taken in our journey towards sustainability.

We also focus on promoting eco-friendly and energy-efficient practices with local SSI/MSME vendors. All handling equipment undergoes regular maintenance to ensure a safe and healthy environment within the warehouses. Packaging materials are typically sent with consignments, and any leftover packaging is responsibly disposed of at regular intervals. While vehicular traffic in warehouses can cause some localized pollution, all vehicles are checked for compliance with pollution control standards.

CMO as part of SAIL's marketing arm works as responsible unit ensuring that all industry standards with regard to Environmental and Sustainability are met, we remain dedicated to continuous improvement. Our efforts, from reducing waste to adopting renewable energy and efficient processes, contribute to a more sustainable operation.

SAFETY AND HEALTH



**ROURKELA
STEEL PLANT**



SAFETY AND HEALTH

(GRI 3-3)

At SAIL, we firmly believe that excellence in Safety and Health leads to excellence in business outcomes. Therefore, nothing takes precedence over the safety and well-being of the individuals who work in and around our steel plants. To uphold this commitment, SAIL has been consistently and continuously strengthening its safety and health management systems and practices. Our ultimate goal is to foster a safe, healthy, and secure working environment across all our Plants, Mines, and Units.

Safety is deeply integrated into every process and operation within our premises. Oversight and strategic direction on safety and health matters are provided at the highest levels of the organization—by the Board of Directors and its Sub-Committee on Health, Safety & Environment. Critical safety issues are addressed as a priority item at all relevant forums across every tier of our management structure.

SAIL aspires to be recognized among the industry's leading performers in safety. To achieve this, we operate under a comprehensive **Safety Policy** and a set of guiding principles designed to ensure a safe, inclusive, and enabling workplace for all—our employees, contract workers, stakeholders, and communities living near our operational sites. Every safety initiative and measure at SAIL is aligned with this policy, reinforcing our commitment to a culture where safety is not just a requirement but a shared responsibility.

With a steadfast commitment to continuous improvement, SAIL proactively plans and sets safety and health objectives well in advance. These objectives are effectively achieved through robust and well-established Occupational Health & Safety (OH&S) management programs. The company's consistent advancement in safety and occupational health performance is the result of structured systems, streamlined procedures, and the adoption of best work practices. To ensure alignment with global benchmarks, SAIL rigorously adheres to internationally recognized standards such as ISO 45001 (Occupational Health & Safety), ISO 9001 (Quality Management), and ISO 14001 (Environmental Management). Regular internal and external audits are conducted to assess compliance, identify areas of improvement, and reinforce the culture of accountability.

Recognizing the importance of collaboration, SAIL has entered into a Memorandum of Understanding (MoU) with the National Safety Council (NSC), Mumbai, fostering mutual engagement in areas such as safety audits, training, and capacity building. However, SAIL acknowledges that safety is not solely a matter of systems or protocols—it is deeply rooted in organizational culture. A lasting transformation in safety performance requires a shift in individual mindset and behaviour. With this in mind, SAIL is placing increasing focus on attitudinal change as a driver for improving safety culture across all levels of the organization. To support this cultural transformation, a reputed safety consultant has been engaged at the ISPs to strengthen the existing safety management system and specifically address behavioral aspects. As part of the safety consultancy, structured approach to safety management is being followed by implementing elements such as Behavioural Interventions (BI) to find out the unsafe acts & conditions, competency & capability development, framing new as well as upgrading existing safety standards, systematic incident investigation, monitoring thru' a robust safety governance structure, etc. The various elements are monitored through dedicated & customised Web Portals.

In parallel, **Behavior-Based Safety (BBS)** programs are being implemented across SAIL's Plants. These initiatives aim to identify and correct at-risk behaviours—recognized as the root cause of many incidents—thus fostering a safer and more responsible working environment. Through this integrated approach—combining rigorous systems, international standards, strategic partnerships, and cultural change—SAIL is steadily moving towards its vision of becoming a benchmark in industrial safety performance.

Safety Setup

(GRI 3-3, 403-1, 403-2)

Effective leadership plays a pivotal role in fostering and sustaining a strong safety culture—one that is aligned with SAIL's unwavering commitment to the goal of zero harm. Safety performance is regularly and rigorously monitored at the highest levels of the organization, including the Board of Directors, the Chairman, and Directors. Oversight and strategic

guidance for safety and health initiatives are provided by the Board Sub-Committee on Health, Safety & Environment (BSC on HSE). At the operational level, Directors In-Charge, Chief Executives, and Executive Directors of respective Plants and Units are deeply engaged in closely monitoring and driving safety performance. At the Corporate level, the SAIL Safety Organisation (SSO) plays a central role in coordinating and guiding safety and fire service initiatives across the company. Each Plant and Unit is supported by a dedicated Safety Engineering Department (SED), which ensures strict compliance with safety standards during routine operations, maintenance, and repair work.

Complementing this, the Fire Services Department, fully equipped with modern resources and trained personnel, remains on constant alert to respond to emergencies, conduct rescue operations, and oversee fire prevention strategies. At the departmental and shop floor level, safety is further reinforced through the presence of Departmental Safety Officers (DSOs) and Safety Stewards / Captains / Warriors, who are responsible for ensuring adherence to established safety standards and procedures. DSOs play a crucial frontline role by monitoring safety practices daily and working in close coordination with the SED to mitigate risks and enhance workplace safety.

Additionally, in project and expansion areas, dedicated Safety Officers are deployed to oversee safety compliance during various phases of construction and development, ensuring that safety remains a top priority throughout the lifecycle of every project.

Governance Structure Framed Under Safety Management Consultancy Assignment (SMCA)

As part of the Safety Management Consulting Assignment, a robust Safety Governance Structure has been framed to look into various aspects under different elements and ensure involvement of top leadership as well as members connected with different functions. The entire intervention is guided and reviewed at the plant level by a Safety Senate / Apex body headed by Director In-charges. Different elements, e.g. BI (Behavioural Interventions), Competency & Capability, Standards, Incident Investigations etc. are steered across the plant by

Cross Functional Teams or Element Steering Committees, which are headed by senior executives. At the individual deptt. or shop level, the Departmental Implementation Committees headed by respective HOD, are functional to implement the various aspects, with a view to ensure holistic approach to safety management. This has helped in bringing safety to the forefront of all activities and inculcating a positive shift in the mindset & behaviour of all working personnel, thus promoting a positive & progressive safety culture.

Systems and Procedures

(GRI 3-3, 403-1, 403-2)

Steel manufacturing is inherently complex and involves a range of high-risk processes that demand meticulous hazard management. At SAIL, safety is not an afterthought—it is embedded in every aspect of our operations, blending engineering precision, operational discipline, and managerial oversight to proactively prevent accidents and incidents. We adopt a systematic, three-pronged approach to safety management, built on the foundational principles of the 3 E's—Engineering, Enforcement, and Education. This integrated model ensures that safety is actively considered in every sphere of our functioning.

From the earliest stages of design and development, safety considerations are paramount. By incorporating state-of-the-art technology, we minimize human exposure to hazards, protect our workforce, and safeguard the surrounding environment. During the execution and commissioning of new projects or facilities, rigorous adherence to Safe Commissioning Procedures and Protocols ensures that safety is maintained throughout. Compliance with all statutory safety regulations is a core pillar of our operations. Safety aspects are comprehensively woven into Standard Operating Procedures (SOPs), Standard Maintenance Practices (SMPs), and Work Instructions (WIs). These critical documents help maintain technological discipline and provide essential guidance to frontline workers. They are periodically reviewed and updated in response to evolving processes and technological advancements. Updated versions are made easily accessible to all employees via web-based Knowledge Management (KM) portals, promoting transparency and continuous learning.

To manage high-risk tasks, 'Permit to Work' and 'Protocol' systems with built-in safeguards are strictly enforced—especially for critical jobs involving multiple stakeholders. For major capital repairs and shutdowns, we undertake intensive safety surveillance and monitoring, ensuring not only timely execution but also safe completion of work. In our pursuit of excellence, SAIL also aligns with the Inter Plant Standards in the Steel Industry (IPSS) to continually elevate safety benchmarks. The IPSS 1:11 - Standards Committee on Personnel Safety Appliances and Procedures is actively involved in formulating new safety standards, while also updating existing ones based on insights from industry experts and safety professionals. These standards are publicly available on the IPSS portal, accessible through SAILNet and the internet for industry-wide benefit.

Preparedness for emergency situations is another key focus area. Comprehensive Emergency Preparedness Plans have been developed and are regularly tested through mock drills, involving cross-functional coordination between departments such as the Safety Engineering Department (SED), Fire Services, Gas Safety, and the Occupational Health Services Centre (OHSC). Periodic drills are also conducted in partnership with external agencies such as the National Disaster Response Force (NDRF), with active participation from all in-plant teams, including the Central Industrial Security Force (CISF). Through this multi-layered and future-ready approach, SAIL continues to lead by example in establishing a culture where safety is not just a compliance requirement—but a shared organizational value.

As a new initiative, SAIL played a key role as one of the members of working group which was constituted by Ministry of Steel (MoS), Govt. of India for preparation of comprehensive Code of Practices for enhancing the safety eco-system in the steel producers in the Iron & Steel sector. 25 nos. of safety guidelines were finalized and uploaded on the MoS website for reference & use by all stakeholders. Further, 16 nos. of process-based safety guidelines were finalized and issued in June 2024.

Workers' Involvement in Safety Management

(GRI 3-3, 403-1, 403-4, 403-6, 403-8)

At SAIL, we firmly believe that joint participation of

management and workmen is vital for cultivating and sustaining a robust health and safety culture. This spirit of collaboration is institutionalized through Health and Safety Committees at every Plant and Unit, ensuring that all employees are meaningfully involved in shaping a safer work environment. All employees across the organization are covered under formal joint management-worker Health and Safety Committees, which actively engage them in identifying, assessing, and mitigating workplace hazards. These forums are not only consultative but participative, reflecting our commitment to inclusivity in safety governance.

A range of bipartite platforms, including Central/Apex Safety Committees, Departmental Safety Committees, and Pit Safety Committees, operate effectively across Plants, Units, and Mines. These committees feature participation from top management, trade union representatives, and frontline employees. Regularly scheduled meetings serve as dynamic platforms for deliberating on health and safety matters, fostering continuous improvement in Occupational Health & Safety (OH&S) standards. To enhance employee ownership of safety, engagement initiatives are regularly undertaken across the organization. In the year 2024, Safey Circle scheme was launched through which a number of teams at worker level is constituted to identify safety related issues and propose the solutions. This way every employee is encouraged to take personal responsibility for achieving zero-accident performance—in their own work areas, departments, and across the company. To further recognize and reward this employee led initiatives, competitions are organised to reward the safety circle teams at department level, Plant level by the SAIL Safety Organisation (SSO). This offers a platform for employees from all Plants and Mines to showcase innovative safety practices. Not only does this foster a spirit of healthy competition, but it also facilitates cross-functional learning and the dissemination of best practices across the organization.

At the national level, SAIL plays a key role in the Joint Committee on Safety, Health & Environment in the Steel Industry (JCSSI)—a unique bipartite forum representing major central trade unions and leading steel producers. JCSSI serves as a collaborative platform to develop and implement industry-wide recommendations and action plans aimed at ensuring

safe, healthy, and sustainable working conditions throughout the Indian steel sector.

To promote excellence and recognize outstanding safety performance, JCSSI organizes various competitions, annual awards functions, and committee meetings. Exceptional contributions by individuals and organizations are formally acknowledged and celebrated. The JCSSI also fosters a culture of shared learning among participating companies through periodic workshops, seminars, plant visits, and knowledge-sharing sessions. Additionally, the JCSSI website (www.jcssi.com) acts as a digital hub for accessing safety resources and sharing valuable information across the industry.

Through these multi-tiered and collaborative mechanisms—spanning plant-level committees to national forums—SAIL continues to nurture a culture of collective responsibility and continuous safety enhancement, ensuring that safety is not just a policy, but a deeply shared value across the organization.

Safety Training, Education & Awareness

(GRI 3-3, 403-5)

At SAIL, we recognize that education and continuous learning are fundamental to a robust Safety Management System. To this end, comprehensive training programs are regularly organized for both regular and contractual employees, equipping them with the necessary skills, awareness, and mindset to operate safely and responsibly. Training initiatives are guided by competency mapping, ensuring that employees receive targeted instruction in key areas such as safe work practices, accident prevention, and risk control. These programs address a wide spectrum of topics including statutory safety requirements, gas safety, confined space, electrical safety, crane operations, conveyor safety, material handling, Behaviour-Based Safety (BBS), occupational health & hygiene, first aid, stress management, occupational disease prevention, and HIV/AIDS awareness. To promote experiential learning and industry



collaboration, SAIL organizes 'Learning from Each Other' (LEO) workshops in association with other Indian steel producers. These forums address critical safety concerns specific to work zones and promote the exchange of best practices. Large Group Interactions further enhance collective learning by fostering open dialogue among diverse teams. The Behaviour-Based Safety (BBS) approach is actively practiced to instil safe behavioural habits and cultivate a proactive, employee-driven safety culture. Refresher training is imparted both in classroom settings and directly on the job, ensuring relevance to real-time tasks. To validate knowledge transfer, post-training assessments are conducted, with constructive feedback from participants used to refine and improve future sessions.

SAIL also leverages Plant TV cable networks to broadcast safety-related content, enabling broader reach within plant townships and reinforcing safety messages across various segments of the workforce. Additionally, dedicated safety and health training is provided to the Central Industrial Security Force (CISF) personnel and on-site security teams.

For contractual workers, safety training is mandatory and begins even before job deployment. A two-day induction program is followed by job-specific training that highlights area-specific hazards, associated risks, and appropriate control measures. Post-training evaluations are conducted to assess comprehension, with retraining provided as needed to close any knowledge gaps. For high-risk tasks such as working at heights or on confined space, worker competency is assessed using specially designed training aids, ensuring only qualified personnel are engaged.

These consistent and structured efforts have enabled SAIL to foster a safe and healthy working environment, not only for its employees but also for those residing in the surrounding communities.

Awareness-building initiatives are also regularly conducted by the Safety Engineering Departments (SEDs) across departments and units. SAIL celebrates key occasions like National Safety Day, Steel Safety Day, and World Steel Safety Day through a wide array of promotional and educational activities, reinforcing the message that safety is a shared responsibility and a core organizational value.



During the FY 2024-25, following webinars / D-SaP (Safety Awareness Programmes) / Learning from Each Other (LEO) workshops were organised by SSO to continually spread safety awareness among the plant personnel:

- 3 nos. of 'Safety Awareness program for DSOs, Safety Officers and Line Managers titled D-SAP' for executives across SAIL
- To enhance knowledge in Mines Safety, training program on 'Mine Safety Management Plan' through experts from DGMS at MTI, Ranchi, for executives across SAIL.
- Learning from Each Other (LEO) workshops on 'Safety During Electrical Safety' and 'Safety During Gas Safety' for all ISPs of SAIL, TATA Steel, JSW, JSPL and RINL.
- A Learning from Each Other (LEO) workshop on 'Project Safety' for participants covering all ISPs of SAIL, TATA Steel, JSW, JSPL, AMNS, MECON & CET.
- A specially designed Safety Awareness Programme for Ware House Managers of CMO covering topics like Safety & Accident Prevention; Safety during Material Handling; Case study; Role of Ware House Managers and Brief of Contractor Safety Management.

Practicing IT Based Systems

SAIL has embraced the power of modern IT tools and mobile applications to strengthen its Safety and Health initiatives. Through the extensive deployment of these cutting-edge technologies, the latest safety-related information is efficiently disseminated across all levels of the organization. Online safety portals maintained by the SAIL Safety Organisation (SSO) and individual Plants/Units serve as dynamic platforms for sharing critical updates, guidelines, and best practices with employees from all departments. These portals foster real-time communication and act as vital tools for information exchange across the entire organization.

Employees are actively encouraged to engage with these platforms by submitting suggestions for safety improvements and reporting near-miss incidents via user-friendly online systems and mobile apps. This inclusive approach empowers the workforce to contribute directly to the continuous enhancement of safety standards.

Additionally, the SSO and Plants/Units regularly publish a variety of electronic newsletters, magazines, and e-digests that provide insightful and expert-driven content related to Safety and Health within the steel industry. These publications keep employees informed, inspired, and connected to the latest developments and innovations in workplace safety.

By harnessing technology effectively, SAIL ensures that safety communication is timely, transparent, and collaborative—strengthening its commitment to creating a safer work environment for all.

Safety Audits, Inspections & Review

(GRI 3-3, 403-7)

To evaluate the effectiveness of existing Occupational Safety and Health (OS&H) systems, ensure regulatory compliance, and identify opportunities for improvement, regular Safety Audits are conducted across all SAIL Plants, Units, Mines, and Warehouses. These audits are carried out in alignment with Indian Standard IS 14489:1998 - Code of Practice on Occupational Safety & Health Audit. Audits are comprehensive and system-based, with a strong focus on identifying underlying issues and evaluating the robustness of current safety practices. In addition to system audits, compliance audits are periodically undertaken to verify the implementation of recommended corrective actions. Complementary safety mechanisms such as inspections, walk-around surveys, and gap analysis are routinely conducted to uncover potential risks and proactively close safety loopholes. Action plans are subsequently developed and monitored to ensure timely mitigation of identified gaps.

As part of a progressive new initiative, specialized training programs were organized for Departmental Safety Officers (DSOs) on the principles and methodology of Occupational Safety & Health auditing. Trained DSOs then formed cross-functional teams to conduct internal audits, resulting in a holistic and peer-driven evaluation of plant-wide safety systems.

Top management at each plant/unit regularly reviews safety performance, ensuring accountability at the highest levels. Structured review meetings, facilitated by SSO, are held at scheduled intervals with the Heads

of Safety and Heads of Fire Services from all Units. These sessions focus on critical issues and the development of strategic action plans to drive continuous improvement.

These meetings also serve as a platform for experience sharing and knowledge transfer, adopting the 'Learning from Each Other' (LEO) approach. Best practices and successful interventions from across plants and peer organizations are shared to promote benchmarking and innovation in safety management.

To enhance communication efficiency and optimize resource use, video conferencing (VC) is increasingly employed for review meetings and cross-plant interactions. This enables real-time collaboration, faster decision-making, and consistent follow-through on key action points.

In addition, the leadership team from SSO conducts periodic reviews. These include direct interactions with DSOs, Safety Engineering Department personnel, and shop floor employees, followed by detailed feedback reports submitted to the respective Chief Executive Officers (CEOs) and Executive Directors (Works). Such proactive oversight reinforces a culture of vigilance and continuous improvement in safety performance across the organization.

Three tier Safety Audits are being conducted at Plants & Units as mentioned below:

- 1) Internally by concerned area safety officer of Safety Engg. Department & DSO
- 2) Safety audit by SAIL Safety Organisation
- 3) External safety audits by third parties as per statutory requirements

Safety inspections are conducted at different levels in Plants & Units.

- a) By Safety Engg. Departments associating DSOs
- b) By Safety Engg departments associating different departments like Civil Engg Department, Electrical department, Crane Engg Department, Structural Inspection departments etc.
- c) Fire safety inspections by Fire services department associating DSOs
- d) Apex safety inspection by line managers & DSOs
- e) Apex safety inspection by CGMs, EDs & DICs

Salient Safety Highlights of SSO & Steel Plants

SSO

- Release of book on Process Safety Guidelines by Hon'ble Union Minister of Steel and Heavy Industries. The book contains 16 nos. of different Process Safety Guidelines addressing associated hazards & risk control measures, which have been framed under leadership of SSO in consultation with other steel producers.
- Safety Operating Committee meeting conceived by SSO at TATA Steel Jamshedpur with the theme 'Best safety practices at Coke, Sinter, Iron (CSI) in Steel Plants'. The meeting was attended by participants from 16 leading steel producers and technology providers like ISPs of SAIL, SSO, Major Technology Provider (TRL Krosaki, SMS - Paul Wurth), TATA Steel, NMDC, JSW - Dolvi & Vijayanagar, AM/NS etc.
- For the first time, training on 'Gas Safety in Steel Plant' conducted at M/s. Jindal-SAW Ltd., Mundra, Gujarat.
- Safety Quest, a new initiative recently conceived & introduced by SSO, with a view to learn the good safety systems & practices from safety experts from the different spectrums of industry. In line with this, 3 nos. of sessions were organized.
- A system of Suraksha Samvad was introduced in which major incident and Major Near Miss cases of fatality potential are discussed through virtual mode to enhance technical know how among all Plants & Units. 16 nos. of Suraksha Samvads were organized during the year.
- SURAKSHA MANTHAN"- Head of Safety (HoS) Meeting covering safety performance, salient activities, Issues & Concerns and Way Forward.
- As a bottom-up approach, Safety Circle scheme was launched to enhance employee involvement in proactive risk management & strengthen the safety culture.
- 25 safety audits and 10 compliance audits conducted by SSO during the period.
- Nayi Soch: Customized animations made for enhancing learning and to better understand the risk perception of the associated risks. 7 nos. of animations were made in 2024-25.

BSP

- 1 Safety message being spread
- 2 Large Group Interaction (LGI) programmes held
- 3 Exhibition and prize distribution programme for school children
- 4 Road Safety Campaign conducted
- 5 "Safe Operation of Fork Lift Truck" training session (Class room & Site) conducted for Fork Lift Operators
- 6 Workshop on Safety in Wagon Handling held in association with Konkan Railways to enhance safety & efficiency of shunting operations
- 7 Online zoom meeting for e-permit system conducted by External Safety Professional from M/s Meximl, Bengaluru
- 8 Kaun Banega Safety Expert (KBSE) quiz competition organized
- 9 Safety Skit & Poem competition conducted
- 10 "DIAL a CGM": a safety message displayed in every Factory / Shop in which for unsafe conditions and unsafe acts can be reported by any worker including contractor workers to the concerned CGM and Safety control
- 11 Many activities conducted under the guidance of Safety Consultant
- participating in safety management and road safety campaigns, including night-time initiatives
8. Road worthiness of heavy vehicles at Plant Garage, MRD, CSD, FSNL checked by joint team of ASO & DSO on monthly basis
9. Plant Level Safety Committee (PLSC) meeting with nominated union representatives and management held on quarterly basis throughout the year
10. Felicitation of Contractor Workers through "Kaushal Award". This initiative aims to recognize and honor exemplary contributions, commitment to safety practices, and outstanding performance demonstrated by contractor personnel
11. Engagement with Principal, B.C. Roy Engineering College (BCREC) on Digital Safety Interventions to discuss and explore digital interventions in the domain of industrial safety
12. The Safety APEX Committee Meeting, organized under the JAGRITI initiative, successfully conducted on regular basis
13. Structural Stability Test by Competent authority done at all major Deptts of the Plant
14. Start of structural stability test through external competent agency
15. Many activities conducted under the guidance of Safety Consultant

DSP

1. DSP awarded with "Kalinga Safety Excellence Award- Platinum category"
2. SED Executives achieved a significant milestone by providing training to 10,252 contractor workers which is all time best Annual performance
3. A program on Safety" Surakshit Bharat, Vikshit Bharat" organized in collaboration with Hindi Rajbhasha Vibhaag
4. Zero Tolerance Safety rules (ZTR) and Contractor Safety Management System launched from Dec 2024
5. All Oxygen and Compressed Air Drop points labeled and sealed
6. Maintenance cages installed in 26 no's of cranes in Mills Zone and 13 no's of cages in Wheel & Axle Plant
7. Chief General Managers (CGMs) are actively

RSP

1. Nil fatality year for RSP
2. RSP bagged the prestigious 15th Kalinga Safety Excellence Award -2023 in Platinum category
3. RSP Bagged Diamond award under "Global Safety Award 2025" for Steel
4. Safety Drama "Sapna nahihai Safety, Hakikat Hai" staged by employees of SMS-I Department at the entrance of convertor shop in presence ED (W) and senior officers
5. An array of activities conducted by RSP to mark the observance of Road Safety Month-2025
6. A Safety Awareness Program on "Working in confined Space & Working at Height" through "Mobile Demo Van" conducted in association with M/s KARAM Safety Pvt. Ltd at Safety Engineering Dept
7. Workshops on "Safety Circle implementation"

conducted for senior management & Line managers by QCFI Faculties

8. RPL (Recognition of Prior Learning) training program for Agency Safety supervisors, Crane operators and Suraksha Sathi conducted. Total 283 crane operators, 241 Suraksha Sathi and 176 Safety supervisors participated
9. Audio alarm system (with voice in Hindi, Odiya) provided near U-seal area at Blast Furnace
10. Online Ammonia monitor installed near Ammonia cracking unit and the display monitor installed in control room as well as at Site
11. Additional 150 Arc Flash suits procured in 2024-25 and usage being ensured
12. Using aluminized jackets at BF cast house is a new initiative in 2024-25. It protects against high contact heat and radiant heat as well as molten iron splash (up to 2,900 degrees) and non-ferrous molten metal splash. Procurement of 34 Aluminized jacket done for employees in hot metal handling
13. A voice alarm with blinker light system installed at the north side slag pit area to enhance employee alertness during the pouring of liquid slag into the slag pit instead of the SGP. This precaution is crucial due to the potential risk of explosion
14. A projector light displaying a "STOP" symbol (Digital Barricading) installed in HSM-2 and CPP-I machine floor crane to enhance the safety of employees working underneath it
15. EOT Crane VR Simulator for Crane operators engaged in hot metal and slab handling installed at Safety Engineering department
16. Improvement in communication system between tilting runner operator and shunting porter for safe ladle placement and smooth casting operation
 - Audio by press to talk (at tracks and Cast house)
 - LED Indication & CCTV (at pouring area)
 - Hooter (During the tilting runner operation)
 - SOP (Standard Operating Procedure in place)
17. Many activities conducted under the guidance of Safety Consultant

BSL

1. 24 Deptts. were free of Fatal & Reportable Accidents in Works during the Financial Year 2024-25
2. Safety Induction Training imparted to contractual workers before issue of gate passes. (Total 24,391 participants)
3. On-the-Job training imparted to all contractual workers before execution of job (Total 15,612 participants)
4. Gas Safety Awareness Training for Executives, Non-executives & Contractual Workers held in HRD. (Total 1300 participants)
5. 134% training coverage (10,516 participants) among regular employees in Works Division
6. 161 nos. of 'Safety Walk', 32 nos. of 'Audio-Visual Checking', 27 nos. of 'Central Cable Gallery Inspection', 49 nos. of 'Rail-Road Level Crossing Checking', 24 Mock Drills, done during 2024-25
7. Heavy Vehicle Checking conducted as per schedule at vulnerable locations inside the Plant
8. Round-the-clock Safety Monitoring done during Capital Repair/Shut Down/Protocol Jobs
9. Contractor Safety Management (CSM) implemented in all tenders
10. Capability & Competency Building Center (CCBC) established for providing technical domain skill & safety training to persons from the community and persons who work or intends to work inside plant premises
11. Working models on U Seal, Confined Space, Work at Height and Conveyor Gallery installed in CCBC
12. Developed e-Learning modules for Confined Space, Basic Rigging, IRIS & Work at Height
13. ANPR (Automatic Number Plate Recognition) system installed and devices installed inside the Plant at various locations
14. Inspection of roofs of industrial sheds and other structures at height conducted through Drone
15. Stability tests of RCC structures inside Plant
16. Many activities conducted under the guidance of Safety Consultant

ISP

- 1 ISP, Burnpur awarded the Kalinga Safety Excellence Award –“Platinum Category” (Manufacturing Sector)
- 2 A motivational award scheme “Enhancement of Safety Culture” introduced to instil a culture of continual improvement amongst employees in their respective workplace with special thrust to assess dept. wise near miss reporting, inspection & evaluation of housekeeping initiatives, evaluation of best DSO (Iron/Steel/Services) zone and evaluation of best safety supervisor (Iron/Steel/Services) zone.
- 3 Safety circles introduced: a proactive method of Bottom-up approach
- 4 One-day Seminar “Safety Awareness Meet on Role of Industrial Development and Sustainability” organized in association with Directorate of Factories, Govt. of West Bengal
- 5 Exhibition of Safety items including PPEs displayed by various vendors and manufacturers
- 6 “Sambhav”-Capability, Competency and Development Centre inaugurated by then DIC (Burnpur& Durgapur Steel Plant)
- 7 SHE Walk by Director-in Charge (DIC) along with Functional & Sectional Heads conducted covering-housekeeping drive and revival of drainage network, BBS observation and peripheral cleaning of workplace
- 8 Meeting of Central Committee on Safety Production & Welfare (CCSPW) held for continual improvement in safety culture at ISP, Burnpur
- 9 A Full day “Leadership workshop” was organized with help of an expert faculty from M/s. ASK EHS Engineering & Consultants Pvt. Ltd.
- 10 Safety Exhibition organized at Works depts to promote a strong safety culture
- 11 “Suraksha Chintan” launched to address all Safety issues with shop floor work-persons
- 12 Introduction of SAP enabled Safety Protocol
- 13 Introduction of Simulator based Training for EOT Crane Operators & Dumper/HEMM Operators
- 14 Round the clock monitoring through LiDAR based speed cameras at strategic locations to enhance road safety
- 15 Installation of Global Positioning System (GPS) on Heavy Earth Moving Equipment, “Digital Barrier” for EOT Crane movement for safety of work-persons, Anti-Collision Device for EOT Cranes and in Locos, and Audio alarm system and signal blinkers at all level crossings
- 16 Implementation of Contractor Safety Management through ‘Vendor rating system’
- 17 9 ‘Zero Tolerance Safety Rules’ enforced to spread proactive safety culture
- 18 Many activities conducted under the guidance of Safety Consultant

Occupational Health Management**(GRI 3-3, 403-1, 403-2, 403-3, 403-6, 403-7)**

SAIL has established full-fledged and well-equipped Occupational Health Services (OHS) centres with required infrastructure & modern healthcare equipment at all Plants & Mines to deliver a comprehensive, multidisciplinary and multidimensional health programme. OHS is committed 'to promote and maintain the physical, mental and social wellbeing of our employees at the highest possible level'. The committed services provided by the OHS in Plants have made them an integral part of the production setup and they've contributed actively to prevent illness & disability as well as to protect & promote the health of the employees. The Company has been giving priority towards improving workers' health by covering 100% employees under various OHS programmes. National OHS Centre (NOHSC) at BSP is a multi-disciplinary, multi-dimensional OHS centre, which functions as a Central Nodal Agency to monitor Occupational Health activities in different SAIL Units.

An integrated approach towards comprehensive health care is followed for preventive, curative, promotive and rehabilitative health services and maintaining a conducive work environment in line with the requirements of ISO 45001/ OHSAS 18001 & SA 8000 Standards. Periodic internal as well as external surveillance audits are conducted to make the systems more effective. Computer based software tool named Health Information System (HIS) is utilised for collection, compilation, analysis, retrieval and dissemination of necessary information.

Health awareness is promoted across the company by celebrating special days like World Health Day, International Yoga Day, Occupational Health Day, Doctors' Day, AIDS Awareness Day, World TB Day, Diabetes Day, World Kidney Day, World Malaria Day, International Women's Day etc. Various programmes focused on regular and contracted female employees are also organised. To promote learning & experience sharing among the OHS fraternity, seminars, workshops such as All India Steel Medical Officers' Conference (AISMOC) are held regularly where good performance is recognized & rewarded. Also important issues are deliberated among doctors/ medical professionals belonging to our steel hospitals. OHS bulletin covering vital information are published by NOHSC for the benefit of employees.



Infrastructure & Facilities

(GRI 3-3, 403-2, 403-7)

Preventive

Periodical Medical Examination (PME), shop floor-based health & hygiene survey, Departmental health check-up (DHC), Hazard Identification & Risk assessment (HIRA) at shop-floor, fundamental research on occupational health and several programme on health education, Occupational Medicine Clinic, Industrial Hygiene Survey setup, Computerized Health Information System (HIS).

Promotive

Awareness programmes, Training on Ergonomics & work design, Occupational health hazards, Industrial Hygiene, Use of PPEs for dust & noise, First Aid and Emergency care, Stress Management, Yoga at OHS centre, AIDS Control, Life Style Diseases, Special programmes for working women, Celebration of Special Days.

Curative

General OPD, Pharmacy, Plant Casualty services with Disaster Management Facilities. Round-the-clock Ambulance services, Eye wash Fountains, Minor OT.

Rehabilitative

Disability assessment following any work injury through Disability Medical Board, Redressal of complaint cases from work places / departments, Job rotation based on deviation found in PME & recommendations of DMB being implemented by

redeployment Committee, documenting follow up & feedback.

Facilities

Lung Function Test, Biochemical investigation, Clinical Pathology, Digital X-Ray, Vision Test, Health Education & Training, OHS Library, ECG, Psychology, Health Information System, Audiometry etc. Occupational Health Research: Fundamental research in various areas of occupational health is considered to be one of the prime activities of OHS centres. Several scientific papers are published and presented on regular basis in the National and International Journals & Conference proceedings on Occupational health & Ergonomics. Several National Institutes & Universities have a close coordination with OHS centres and many post-graduate students have completed their Master's programme thesis under the guidance of OHS professionals.

Salient Activities undertaken by OHS Centres

- Periodical Medical Examination of 34,239 employees carried out.
- OHS OPD services provided to 74,828 employees.
- 534 Training programmes conducted by OHSC covering 14,687 participants.
- Special Days like World Day for Safety & Health at Work, International Yoga Day, International Women's Day, National Occupational Health Day, World No Tobacco Day, World Diabetes Day & World AIDS Day celebrated.

Work Related Health Data
(GRI403-10)

Sl. No.	DESCRIPTION	DETAILS
A	For Employees	
(i)	Number of fatalities as a result of work related ill health	NIL
(ii)	Number of cases of recordable work related ill health	NIL
(iii)	Main types of work related ill health	NA
B	For all workers who are not employees but whose workplace is controlled by the organisation	
(i)	Number of fatalities as a result of work related ill health	NIL
(ii)	Number of cases of recordable work related ill health	NIL
(iii)	Main types of work related ill health	NA
C	Work related hazards that pose a risk of ill health, including	
(i)	Types of Work related hazards	Fuel gases, chemicals, Fire, Noise, illumination, Vibration, Dust, fumes and Heat
(ii)	How these hazards have been determined	The hazards have been identified through techniques such as HIRA (Hazard Identification & Risk Assessment), HAZOP (Hazard and Operability Study), hygiene survey, safety audits, safety inspections etc.
(iii)	Which of these hazards have caused or contributed to cases of ill health during the reporting period	NA

Safety Statistics (Plants, Units and Mines)
(GRI 403-5, 403-9)

Injury Rate (per 200,000 hours worked)

2022-23	0.04
2023-24	0.05
2024-25	0.04

Mandays Lost*

2022-23	1,184
2023-24	971
2024-25	1,097

*Excluding Mandays lost on account of fatal accidents

Accidents by Category (nos.)

Year	Regular Employees	Contractor Worker	Total
2022-23	28	35	63
2023-24	33	42	75
2024-25	29	33	62

Total Nos. of Safety Training Imparted

Year	Numbers
2022-23	1,59,833
2023-24	1,92,490
2024-25	1,53,474

HUMAN RESOURCE





(GRI 2-7a, b, c, d, e, 2-8a, b, c)

Human Resource Management involves the management of an organization's workforce to achieve business objectives. This includes fulfilling the organization's staffing needs and maintaining ideal workplace conditions. The HR department accomplishes this by utilizing HR strategies and policies focusing on the work force. With a view to achieve its objectives, several disciplines and facilitating elements including industrial psychology, business management, analytics and sociology are used for a comprehensive approach to managing an organization's most important asset, its workforce. The role of HR department encompasses all issues related to people such as hiring/ recruiting, training/skill development, compensation & benefits, wellness, communication, administration and safety.

The workforce of the company, the most valuable asset of any organization, is a dynamic resource that needs to be managed effectively in order to achieve the business goals. Human resource department in SAIL goes beyond the hiring process and also plays a crucial role in the day to day operations. The

importance that an organization accords to human resource management gets reflected through the success of an organization.

The manpower strength of the SAIL was 53,159 as on 1st April 2025 based on reports furnished by all Plants, Units and Mines. The labour productivity during the year was 615 TCS/Man/Year. Despite reduction in manpower, improvement in productivity could be achieved as a result of judicious recruitments, competency building, availability of learning opportunities for employees, building a sense of commitment & passion among employees to excel and strengthen the Company culture. Manpower numbers vary on year to year basis on account of superannuation and other separations (death, resignations etc.). As regards the labour deployed by various Contractors under various job contracts, their numbers was 75,343 as on 1st April 2025 as reported by Plants, Units and Mines of SAIL. Their numbers fluctuate depending upon the job contract awarded by the respective Plants, Units and Mines. The ratio of employees in the gender category (Female/ Male) remains at 6.3:93.7.

Name of Plant/ Unit	Permanent (Gender-wise manpower as on 1.4.2025)				Total SAIL Manpower As on 1.4.2025	Contract Labour (As on 1.4.2025)
	Executive		Non-Executive			
	Male	Female	Male	Female		
BSP	2404	236	10576	604	13820	20739
DSP	1185	63	5595	307	7150	6689
RSP	1809	125	9541	555	12030	16249
BSL	1802	178	8131	540	10651	14044
ISP	976	63	3563	184	4786	6862
ASP	137	8	395	28	568	1117
SSP	167	16	562	26	771	971
VISL	43	6	174	15	238	1227
CCSO	9	0	23	3	35	5
CMO	394	107	273	72	846	2375
RDCIS	123	12	21	6	162	190
CET	167	12	6	5	190	47
MTI	17	4	17	3	41	60
CO	149	60	88	22	319	6
GD+SGW	14	0	1	0	15	541
EMD	8	4	6	1	19	3
SSO	16	0	3	0	19	0
SRU	102	6	303	21	432	1956
CFP	57	5	83	2	147	575
Coll.	119	3	760	38	920	1687
Total	9698	908	40121	2432	53159	75343

Harmonious Employee Relations

(GRI 2-30, 3-3, 402-1, 407-1)

Positive employee relations play a vital role in accomplishment of organizational tasks and goals. Management of employee relations in the workplace helps build effective teams where employees respect & trust each other, are open to implementation of new ideas and work seamlessly as a team. Harmonious relationship between employees and employers contributes to increase in efficiency, higher productivity and improvement in various other efficiency parameters thereby leading to the overall growth and development of Organization.

SAIL has maintained its glorious tradition of building and maintaining a conducive and fulfilling employer-employee relations environment. The healthy practice of sorting out and settling issues through discussions with trade unions/workers' representatives enabled in ensuring workers' participation at different levels and establishing a peaceful industrial relations climate. Some of the bipartite forums are functioning since early seventies and are sufficiently empowered to address different issues related to wage, safety and welfare of workers, thus, helping in establishing a conducive work environment.

Existence of bipartite forums like National Joint Committee for Steel Industry (NJCS), Joint Committee on Safety, Health & Environment in Steel Industry (JCSSI) have facilitated safe and harmonious work culture. The said bi-partite forums have workers' representatives of Plants / Units belonging to major Central Trade Unions. These forums hold meetings periodically and jointly evolve recommendations / action plans for ensuring a safe environment and strong work culture which gets substantiated from the harmonious Industrial Relations witnessed over the years by SAIL Plants/ Units, marked with SAIL work culture at multi-locations. The Company believes in workers' participation and promotes involvement of workers in various organizational activities such as Quality Circles, Suggestion Schemes, Shop Welfare Committees, Safety Committees, Canteen Management Committee, Production-Productivity Committee, etc. Workers are also kept abreast of strategic business decisions and their views sought thereon through structured / interactive workshops.

All non-executive employees / workmen of SAIL who are on permanent rolls of the Company are covered under wage settlement finalized in National Joint Committee for Steel Industry (NJCS) which is the apex

bi-partite body in SAIL comprising of Management and Workers representatives.

NJCS comprises of workers representatives from major Central Trade Union Organizations, representatives from recognized Unions of SAIL Steel Plants and RINL and Management representatives of SAIL & RINL. Cordial industrial relation ambience with trade unions/workers' representatives is maintained by a healthy practice of continuous communication and dialogue which helps in settling issues through participative discussions. The recommendations/ action plans for wages and benefits for non-executive employees are evolved jointly based on discussions amongst workers representatives and Management. This kind of an environment in the organization which promotes trust, respect and camaraderie, inter-alia, a common SAIL culture has led to growth & development, reduction in turnover of manpower, exposure to intra-company best practices, enhanced motivation, enhanced employee loyalty and improvement in financials. The discussions and agreement in NJCS inter-alia includes and covers issues such as Productivity, Safety, Health and Environment.

As per the terms of Wage Agreement, the Unions can submit their Charter of Demands 6 months before expiry of the Wage Agreement arrived in NJCS. Also, at the time of negotiation, date and time of meetings of NJCS forum are decided with mutual consent of both the parties i.e. Management as well as Unions.

In the case of Executives, the Steel Executives' Federation of India (SEFI) - the apex body representing the executives in SAIL, takes up various issues concerning executives including their remuneration. There is no incident with respect to operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.

There is no incident with respect to operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.

Recruitment & Remuneration Policy

(GRI 3-3, 202-1, 202-2, 401-1, 404-3, 405-1, 405-2, 406-1)

SAIL clearly specifies the pay package / remuneration in the advertisement notifying the vacancy / role and this act promotes transparency and equity right from the very beginning of the hiring process. SAIL as a responsible and transparent organization makes sure of taking the aforementioned step when planning for a recruitment.

Recruitment & remuneration complement each other. SAIL believes in hiring and retaining the best talent irrespective of sex, caste, creed, or religion. The selection process is well structured, transparent and follows the laid down norms of a Government organization. Thus, SAIL complies with Presidential Directives issued by Government of India for ensuring representation of disadvantaged section of society viz. Scheduled Caste (SC) / Scheduled Tribe (ST) / Other Backward Class (OBC), Persons with Disabilities (PWD), Economically weaker section (EWS) & ex-servicemen (ESM) and carry out the recruitment with the reservation specified by Government.

The candidates from the disadvantaged section of society are being provided with relaxation in eligibility criteria like age, educational qualification, qualifying marks, fees etc. It is a part of the Board approved codified Recruitment Policy. Interview Committees / Selection Committees which carry out the Recruitment has the mandatory representation from the said Groups such as SC / ST / OBC / Minorities for ensuring fairness in selection. Special Recruitment Drive especially for the qualified candidates belonging to disadvantaged section of society is also carried out to liquidate any shortfall in their numbers vis-à-vis reservation percentage stipulated in Presidential Directive. SAIL also promotes inclusion of local people in various kinds of jobs through local employment exchange, and also through open advertisement for recruitment purpose. Locally Displaced People are also sponsored for undergoing training at ITI and thus get an opportunity for employment.

In 2024-25, a total of 1084 nos. of new employees were hired across SAIL, out of which 286 were executives and 798 were non-executive workers. Out of the total newly recruited employees, 91 were females (8.4%). Turnover rate for permanent employees in 2024-25 was around 7.168%.

SAIL provides equal and uniform benefits to its workforce. All employees (non-executive and executive) are being paid salary / wages irrespective of their gender, caste, creed, religion, region etc. There is no discrimination in payment of Wages / Salaries. The wages of non-executive employees are based on negotiated agreement under National Joint Committee for Steel (NJCS), whereas the salary of Executives is based on applicable government guidelines issued on the subject. There is a robust Performance Management System in SAIL whereby all executives are evaluated by the reviewing and reporting officers every year to assess their performance and part of their annual remuneration is linked to the Company's performance and their performance.

For contract labours engaged under various job contracts by Contractors, the payment is made to them by the Contractors which is over and above the minimum wages. It would be pertinent to mention that the minimum wages of contract workers are fixed by the respective State government for that location, without any gender differentiation.

HR Systems and Processes

(GRI 3-3, 401-3, 402-1)

The human resources management system of SAIL ensures that HR processes are manageable and easy to access. Human resource information systems provide a means of acquiring, storing, analyzing, and distributing information to various stakeholders. Workers' participation at SAIL, at different levels, right from National level up to shop-floor level, is ensured through an established system of negotiation. Fair dealing & compliance on labour issues are ensured by the designated Labour Welfare Officers of the respective Plant/Unit/Mines.

The three key benefits of having a structured HR system makes it efficient and impartial. It also helps the organization to make informed business decisions and enhances employee engagement by connecting with employees.

There is no discrimination between employees and SAIL believes in providing the right opportunity to the most deserving employee. The HR department regularly monitors fairness in activity and services of the Company.

The Company encourages Freedom of Association, as enshrined under the Constitution of India and envisaged in the Trade Union Act. The Right to exercise the Freedom of Association and Collective Bargaining in SAIL's operations is also actively used at SAIL.

SAIL is a Central Public Sector Enterprise with Government having 65% stake. SAIL is committed to protect the Fundamental Rights of the workforce as described in the Constitution of India. Human Rights are necessarily being complied by SAIL. The Government of India through its Administrative Ministry i.e. Ministry of Steel regularly monitors the performance of SAIL on various parameters. As a result of this, the Company is proud that there was no recorded case during the reporting year on any violation of Human Rights. Efforts have been made to implement and manage Succession Planning and Career Development policy in respect of all employees. Accordingly, regular performance and career development reviews are done for all the employees.

Aspects of Human Rights are communicated to all the vendors & suppliers through implementation of SA 8000. SAIL arranges for training & awareness workshops for employees on different aspects of SA 8000 which cover areas relating to child labour, forced labour, non-discrimination, freedom of association, safe work environment and health & safety. The SA 8000 clause on abolition/prohibition of child labour includes employment of persons of age 18 and above as a precondition to partnering with SAIL. In the event of any kind of violation of aforesaid SA 8000 clause by any vendor within or outside the Company premises, liabilities for the education of the child until the completion of high school accrue to the defaulting party. This condition is clearly communicated to all the vendors and suppliers during their engagement with the Company.

The policies and guidelines of Steel Authority of India Limited (SAIL) are designed to ensure transparency,

uniformity, and fairness in all aspects of organizational functioning. They serve as a structured framework to guide employee conduct, operational procedures, and strategic decision-making across all units. Reflecting this structured approach, SAIL has stipulated minimum notice periods for various operational changes, reinforcing its commitment to fairness and organizational clarity. As per the established norms of the organization, in cases of organizational changes that involve change of Plants/Units, employees are allowed a release period of up to 30 days, which may be extended by an additional 30 days with the approval of the competent authority. In instances where an executive is promoted and transferred, a joining time of one month is granted. This period may be extended by a further month upon submission of a request by the executive. These provisions reflect the organization's commitment to operational clarity while accommodating genuine employee concerns.



At Steel Authority of India Limited (SAIL), employee well-being is considered integral to organizational success. The Company places strong emphasis on promoting a healthy work-life balance through flexible leave policies, structured working hours, support for maternity and childcare, as well as recreational and wellness initiatives at the workplace. SAIL's commitment to holistic employee welfare is further reinforced through Employee Assistance Programme (EAP)—a professional support system designed to help employees cope with personal or professional challenges. This programme provides access to counseling services for stress management, mental health, emotional well-being, and work-related concerns, ensuring that employees are supported not just as professionals, but as individuals. Together, these initiatives underscore SAIL's progressive approach toward creating a supportive, balanced, and resilient work environment. To support work life balance, appropriate leave policies are available for the employees. All regular employees enjoy benefits like

Health care, Disability /Invalidity coverage, Maternity Leave, Retirement Benefits. The maximum period for which any woman shall be entitled to maternity benefit shall be twenty-six weeks of which not more than eight weeks shall precede the date of her expected delivery. A women employee may be also granted child care leave for taking care of two surviving children. A male employee, with less than two (2) surviving children may be granted Paternity Leave.

Also, the workman engaged by the Contractors in establishments of SAIL, are covered under the ESI Benefits.

SAIL also provides its employees with various social benefits in the form of housing, education, civic amenities, sports & recreation, and social welfare. Full-fledged townships have been developed over the years at all Plant locations with modern infrastructural facilities along with premier schools, super specialty hospitals, shopping malls, multiplexes, parks,

gymnasium, and stadiums which enable employees and their families to lead a comfortable life replete with all modern amenities.

Communication with Employees

Clear two way communication is vital for the health and strength of a company. Without it, managers would not be able to properly lead the Teams and achieve the Organizational goals. The more effectively a business executes an employee communication strategy, the more successful it will be. SAIL feels that employees who communicate effectively with colleagues, managers and customers are always valuable assets to an organization and it is a skill which can often set people apart from their competition when applying for various roles within the organisation.

Communication is done in a structured manner with employees at various levels on a wide range of issues impacting the Company's performance as well as those related to employees' welfare across the Company. Mass communication campaigns are undertaken at Director In-charges' / Senior Officers' level involving structured discussion with large group of employees. These interactive sessions help employees to align their working with the goals and objective of the Company leading to not only higher production and productivity but also enhance the sense of belongingness of the employees. It also helps in maintaining workplace harmony, improves employee experience, encourages innovation and increases inter-departmental co-operation.

Grievance Redressal Mechanism

(GRI 3-3)

Effective internal grievances redressal machinery has been evolved and established in SAIL plants and units for effective redressal of grievances. Employees can raise grievances relating to service matters like wage irregularities, working conditions, transfers, leave, township amenities, welfare amenities etc. Majority of grievances are redressed informally keeping in view the participative nature of environment existing in the steel plants. The system is comprehensive, simple and flexible. The rest of the grievances are addressed through the Committees so constituted.

Further, in SAIL, various Bi-partite Committees are functioning at different levels right from national level upto Shop-floor level which are sufficiently empowered to address different issues related to wage, safety, production & productivity, etc. and provide for a proactive mechanism for identification and redressal of grievances/disputes concerning employees.

Further, with a view to strengthen the established Grievance Redressal System and for monitoring at

Plant/Unit level, Plants/Units were advised to nominate Nodal Officer. Also, an on-line system for centralized monitoring of grievances is in the making with active assistance from C&IT Deptt. of Corporate Office.

SAIL Plants/Units are maintaining grievance handling mechanisms and employees are given an opportunity at every stage to raise grievances relating to wage irregularities, working conditions, transfers, leave, work assignments, welfare amenities, etc. Majority of grievances are redressed informally in view of the well-entrenched participative culture prevailing in the Steel Plants/Units. The system is comprehensive, simple and flexible and has proved effective in promoting harmonious relationships between employees and management. 206 staff grievances were received during the FY 2024-25 and with 32 grievances pending from previous year, 228 staff grievances have been disposed of during the year, achieving 96% fulfilment and leaving 10 grievances outstanding at the end of FY 2024-25.

Human Rights

(GRI 3-3, 408-1, 409-1, 410-1, 411-1)

SAIL deeply values the vital role that companies can play in safeguarding and promoting human rights in the long term. As a leading corporate, SAIL recognizes it's responsibility to uphold the spirit of human rights, as outlined in existing international standards, such as the Universal Declaration and the Fundamental Human Rights Conventions of the International Labour Organization. SAIL's commitment extends to respecting the human rights of it's workforce and all individuals associated directly or indirectly with it's operations including the contractors, suppliers and even their employees. To achieve this, SAIL continuously strives to adhere to the recognized frameworks.

Accordingly, SAIL has put in place 'Human Rights Charter', to express & steer its commitment to carry out the business with ethical values and embrace practices that support human rights in every aspect of its function. Through the charter, SAIL strives to ensure that human rights are safeguarded throughout its operations, and it continues to nurture an environment where dignity, fairness, and respect are fundamental values for all stakeholders involved.

SAIL Human Rights Charter is available to all stakeholders' at SAIL Website and SAIL, Intranet Portal of the Plants/Units.

SAIL continues to adhere to its human rights objectives and there are no known cases of discrimination or any violations of human rights at SAIL, including incidents of child, forced labour or rights of indigenous people.

In SAIL Plants/ Units, Central Industrial Security Force (CISF), a Government Security Force, has been entrusted with the security arrangements. The said specialized Security Force specializes in Industrial Security of Steel Plants and are deployed only after proper training in all aspects of Human Rights. For other non-core areas, security personnel are engaged through security agencies that deploy ex-servicemen.

Diversity, Inclusion & Belonging
(GRI 3-3, 406-1)

SAIL is committed to foster an enabling work-environment that values diversity, promotes equality, and ensures that all employees & the business partners, regardless of their social & cultural backgrounds, have equal opportunities to thrive and reach their full potential. SAIL actively encourages diversity by embracing employees from various backgrounds, cultures, and experiences. SAIL believes that diverse perspectives enrich the organization and lead to innovative solutions. SAIL’s commitment to equal opportunity ensures that all hiring and promotion decisions are based on skills, qualifications, and merit, without any discrimination based on factors such as gender, religion, caste, ethnicity, or disability. By fostering understanding to address unconscious biases, cultural differences and respectful communication, SAIL has been able to create an inclusive work environment where every employee feels valued and heard.

Medical Facilities for Employees
(GRI 201-3, 401-2)

SAIL is committed to health and well being of its employees and has made consistent efforts towards ensuring holistic health of its employees. SAIL, the largest steel producer of India, in its endeavour to maintain a healthy workforce focuses on promoting and maintaining the health of its employees by providing them a conducive and healthy environment to work, and an efficient and advanced health care system with a balance of preventive, promotive and curative measures. As employees’ health and wellness is of paramount importance to the Company, SAIL provides its employees with a range of options for

medical facilities. These medical and health facilities are available to all employees, even post-retirement.

The Company has extended its medical and healthcare facilities to the serving employees and the eligible dependent family members of the employees. SAIL boasts of a huge medical setup comprising of multi-specialty Hospitals and Primary Health Centres, located across its Steel Townships. In case the required treatment/cure is not available at SAIL hospitals, the employees (& their dependents) are referred for medical treatment to hospitals located pan-India as per rules and requirement. For the city based employees and their eligible dependents, where SAIL’s own hospitals are not available, employees are provided comprehensive medical facilities in the empanelled reputed hospitals. The facility of reimbursement of medical expenditure is also permissible for expenses incurred in non-empanelled setups as per rules & approved provisions.

A Mediclaim Scheme has been in operation in SAIL since 1991 for all retired employees and their spouses. The Mediclaim Scheme being operated by SAIL has evolved over the years. SAIL Mediclaim Scheme is amongst the largest group Mediclaim Schemes in India. The premium payable by the beneficiaries for SAIL Mediclaim scheme is highly subsidized.

Employee Family Benefit Scheme (EFBS)

SAIL also has a novel welfare scheme namely EFBS which establishes that SAIL believes in taking care of the employees at the time of distress. Employee Family Benefit Scheme (EFBS) supports families in cases of death of an employee while in service or on account of Permanent Total Disablement.

Employees Superannuation Benefit Fund
(GRI 201-3)

Employees Superannuation Benefit Fund (SESBF) at SAIL exhibits the Company’s commitment towards its employees even after their retirement. SAIL employees contribute @ 2% of their Basic Pay plus DA towards SESBF. The SESBF Fund is managed by a Trust representing Unions, SEFI and Management.



TRAINING & DEVELOPMENT



**MANAGEMENT TRAINING
INSTITUTE, RANCHI**



At SAIL, the training functions are validated by an apex body known as Training Advisory Board (TAB). It is an advisory body on training matters and its key role is to fix the goal and set a direction for focusing on future training needs. TAB is headed by the Chairman and has Directors and CEOs of the Company as its members. At the Plant/Unit level there is a Training Advisory Committee (TAC) to oversee and monitor the implementation of training and development initiatives in line with TAB guidelines. TAC is attended by zonal and departmental heads and chaired by the respective Director In-charge. With this hierarchical set up, these bodies generate several organizational learning needs and thrust areas which are included in the annual development plans.

The Annual Training Plan (ATP) forms the basis for enhancing the competencies of all employees. The Training & Development team at SAIL prepares this Plan for each Plant/Unit covering new entrants, executives and non-executives.

Management Training Institute (MTI) is the apex training institute of Steel Authority of India Limited and is catering to the managerial training needs of senior executives of the company and other organizations by imparting a very high standard of training and related support services. MTI conducts over one hundred and fifty training programmes per year covering over 3000 senior executives of SAIL in different areas of management. This includes General Management Programmes, Functional Management Programmes, Managerial Skill Development Programmes, and Customized Programmes based on requests from Plants and Units.

MTI has designed mechanisms like training to bridge the Critical Skills Gaps, Learning from Each Other (LEO) Workshops to share the best practices, Performance Improvement Workshops (PIWs), Performance Enhancement Programs (PEPs) aimed at resolving specific technical issues & problems arising at shopfloor, through collaborative activities. Action plans are built for addressing issues covering production and productivity, cost reduction, maintenance, housekeeping, and safety at the respective area/shops.

MTI uses competitions as a triggering mechanism for self-learning through exploration by providing context and goal for learning. Some of the important competitions conducted by MTI are Chairman's Trophy for Young Managers (to encourage research at the workplace on issues critical for the organization).

The Faculty of MTI has a rich blend of academics and industry experience with specialization in different functions like Mining, Finance, HR, Marketing, Projects, OB etc. In specific areas, MTI takes support of eminent business consultants and senior practicing managers as faculty. The top and senior executives of the Company also interact with the participants. Committed service teams who make MTI a home away from home; back them with exemplary dedication to the wellbeing of our guests.

MTI is on the path of making its training world class and is making relevant networking with professional institutions. In the wake of SAIL's modernization program, MTI has joined hands with technological leaders to support technical training for Plants & Units by signing MoUs with world renowned technology suppliers – SKF Ltd, Siemens Ltd, Bosch Rexroth Ltd.

MTI has also signed MoU with M/s Tata Steel Adventure Foundation (TSAF) for Outbound Leadership Training Program.

MTI on behalf of SAIL has signed an MoU with IIM(Ranchi), IIM(Raipur), IIM(Nagpur), IIM(Kozhikode), IIM(Lucknow), ASCI Hyderabad and SHRM to collaborate on academics activities and HRD interventions.

The special initiatives taken by MTI for L&D recently are as under:

A) Digital Outreach-

A series of online interactions under the name

- i. **Antardrishti** are being organized for senior executives with thought leaders to share insights and discuss the nuances of the topics.
- ii. **Anveshan** organized as Knowledge byte session for reverse mentor -mentee.
- iii. **Abhyuday** (HMM) sessions on sharing management insights using HMM Modules.
- iv. **Arohan** Cohort learning sessions being organized for Future Skills Prime
- v. **PACE** (Product Awareness for Better Customer Engagement) insight sessions for Sales and Marketing executives.
- vi. **Abhigyan Sampark-Communities of Practices**- to drive knowledge sharing and interactions among the officers/executives in particular domain.
- vii. **HR-L&D Connect**: Workshop for Training Engineers.

B) Physical Outreach-

- i. MTI Faculties going beyond MTI Campus and conducted session/programs such as TOTO, HMM orientation, Awareness program on GeM, LEAP at Plant/Units location.

C) Learning Journey-

- a. Training as a Learning Journeys has been introduced for sustaining long term interventions involving multiple interactions in blended mode.
 - i. AANYA- Leadership development journey for select female executives
 - ii. TARANG- Leadership development journey for Young Managers
 - iii. SWADHAYAY- Leadership Coaching intervention develops a culture of coaching in the organization, focusing on self-realization and empowering employees to find their own solutions.

D) Assessment and Development Centre (ADC)-

- i. Physical ADC covering 122 executives from E6-E7 grades, 59 executives from E3-E5 grades and 36 executives from E8-E9 grades conducted during the year.
- ii. Online- Post ADC Developmental Intervention for E6- orientation session and sessions on creativity and innovation conducted during November 2024 and Agile Leadership and Design Thinking conducted during March 2025.

E) Cascading Learning-

Participants from MTI programs cascading learning at their workplace

- i. Participants from AANYA 1.0 and Tarang 1.0 conducted leadership workshops at respective Plants/Units.
- ii. Finalists of CTYM 2023-24 developed e-Learning module नवसृजन BRSR and Sustainable future through ESG adoption
- iii. "समर्थ": Awareness on Digital Transformation in SAIL e-Learning module was developed by the top learners on Future Skill Prime platform.

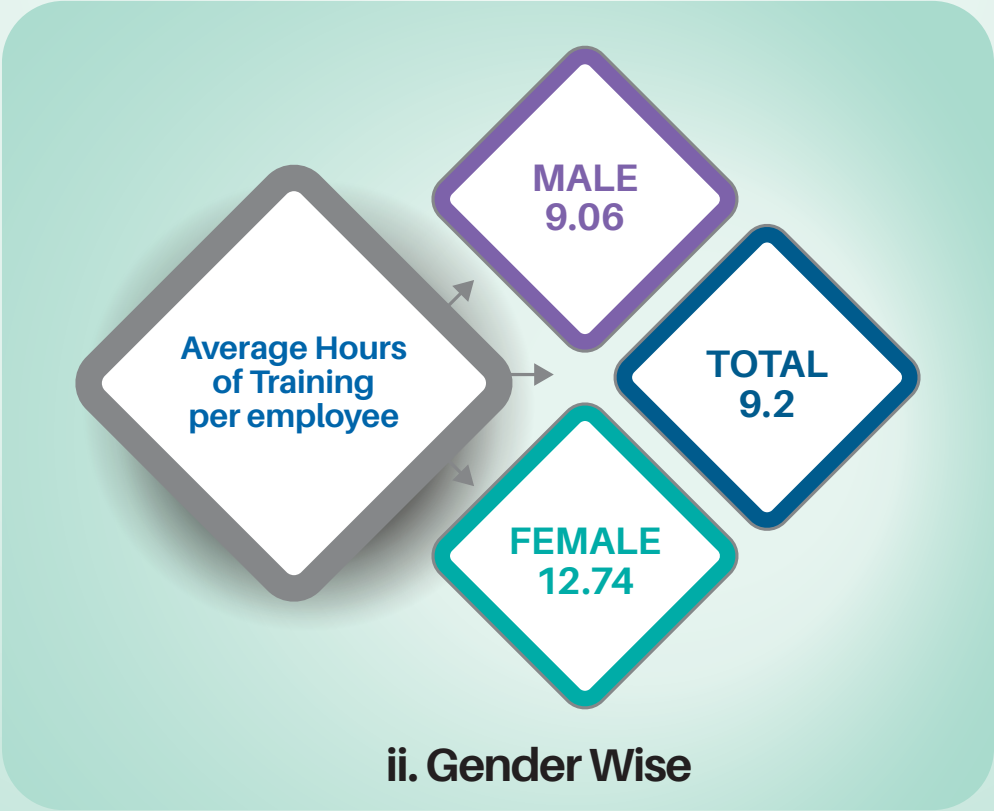
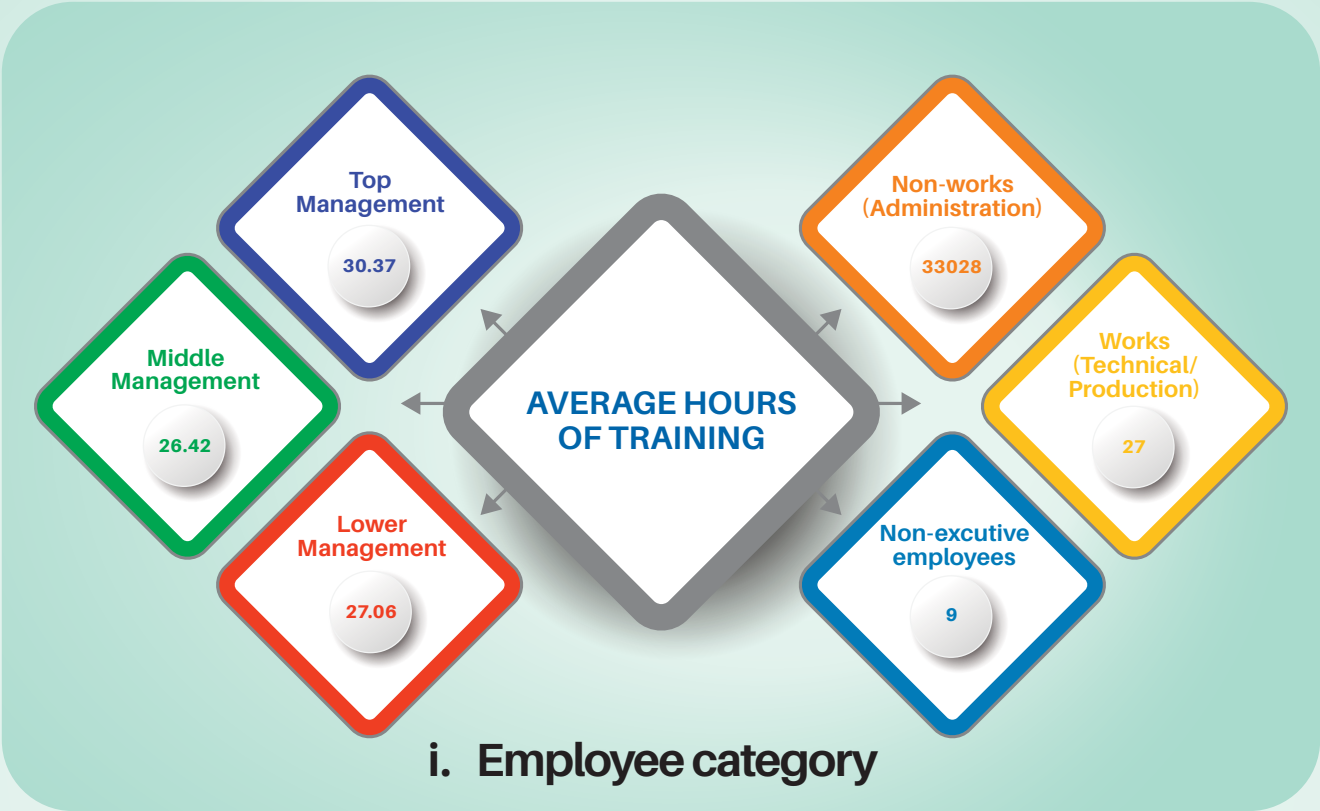
F) e-Learning Interventions-

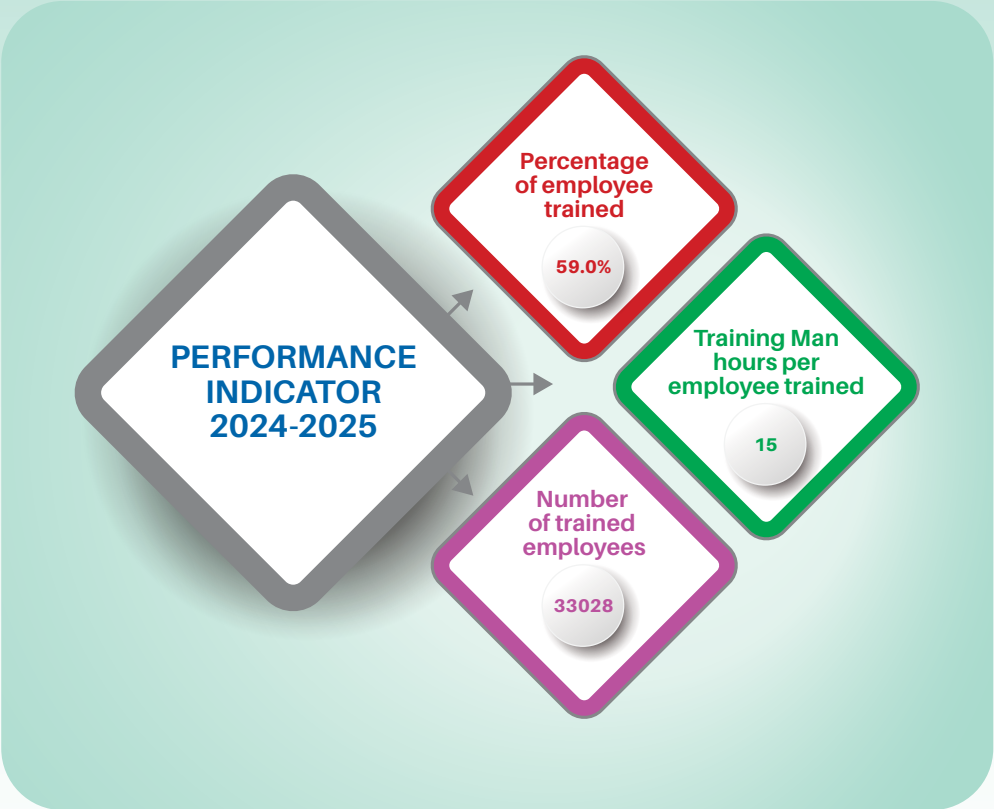
- i. LinkedIn learning- 3000 users have undergone various course through videos, Learning Paths, articles, etc. on the World class AI based LinkedIn learning platform. Approx 10042 learning hours completed.
- ii. Harvard Manage Mentor (HMM)- 41 e-learning modules have been launched for ADC assesses of E6-E7 grade. 2142 courses completed since launch from Oct'2024.
- iii. Asynchronous Online learning through FutureSkills Prime- AROHAN- Campaign launched for FSP enrolment. 46000+ modules have been completed and Badges.
- iv. Enrolments in e-Pathshala scheme- 1211 enrolled.

Average Hours Training Profile for 2024-25

	Executive	Non-Executive	Total
External Training (including MTI/CPTI)	51855	9720	61575
Foreign Training	825	375	1200
Specific Areas	62145	89520	151665
Managerial Competence Enhancement	60435	21165	81600
Technical Competence Enhancement	41925	96855	138780
Fresh/New Entrants	7650	17850	25500
Other Areas	14790	20310	35100

Average hours of training the employees have undertaken during the reporting period









SAIL Leadership Workshop

28th - 29th September 2024

Management Training Institute
Ranchi

There's a little bit of SAIL in everybody's life



CORPORATE SOCIAL RESPONSIBILITY (CSR)





SAIL's Social Objective is synonymous with Corporate Social Responsibility. Apart from the business of manufacturing steel, the objective of the Company is to conduct business in ways that provide social, environmental and economic benefits to the communities in which it operates. For any organization, CSR begins by being aware of the impact of its business on society. With the underlying philosophy and a credo to make a meaningful difference in people's lives, SAIL has been structuring and implementing CSR initiatives from the inception. These efforts have seen the erstwhile obscure villages, where SAIL Plants are located, turn into large industrial hubs today.

The CSR initiatives are undertaken in conformity to the Companies Act, 2013, Schedule-VII to the Companies

Act, 2013, Companies (Corporate Social Responsibility Policy) Rules, 2014, Companies (CSR Policy) Amendment Rules, 2021 and 2022. SAIL carries out CSR projects mainly in and around periphery of steel townships, mines and far flung locations across the Country in the areas of Rural Development including maintenance of Model Steel Villages, providing Education, Healthcare, Immunisation, Ante/post-natal care, Access to Drinking Water, Sanitation, Road side tree plantation, Environment Sustainability, Women Empowerment, Assistance to Sr. Citizens & Divyangs, Sustainable Income Generation through Self-Help Groups, Promotion of Art and Culture, etc. The CSR Policy of the Company is available on the website of the Company www.sail.co.in.

Healthcare

Company's extensive and specialized Healthcare Infrastructure provided specialized and basic healthcare to nearly 186.64 lakh people living in the vicinity of its Plants and Units during the period 2011-2025. In order to deliver quality healthcare at the doorsteps of the needy, regular health camps are being organised in various villages on fixed days for the people living in the periphery of Plants/ Units/Mines. During the FY 2024-25, regular Health Camps have been organized and 5 Mobile Medical Units (MMUs) extended quality healthcare to about **Two lakh** villagers at their doorsteps in peripheral areas of Plants, Units and Mines. 24 Primary Health centres at Plants exclusively provided free medical care and medicines to more than 90,000 patients during FY 2024-25.



Education

To develop the society through education, SAIL is supporting over 77 schools, providing education to more than 40,000 children in the steel townships, 22 Special Schools (Kalyan, Mukul & DA V Vidyalayas) are benefitting around 12000 BPL category students at integrated steel plants and mines locations with facilities of free education, mid-day meals, uniform including shoes, text books, stationery items, schoolbag, water bottles, etc., under CSR.

More than 450 children from tribal and naxal-affected areas are getting free of cost comprehensive educational facilities viz. Schooling, Accommodation, Meals, Uniform, Textbooks, Infrastructure, etc. at Saranda Suvan Chhatravas and Central School, Kiriburu; Gyanodaya Chhatravas, BSP School Rajhara, Bhilai; Gyanjyoti Yojna, Bokaro, and other schools.



SAIL is providing Mid-day meals to around 60,000 students in over 600 Govt. schools in Bhilai and Rourkela; in association with the Akshaya Patra Foundation,.



Distribution of Milk Packets to School Children

Women Empowerment & Sustainable Income Generation

About 474 youths have been sponsored for ITI training at ITIs Bolani, Bargaon, Baliapur, Rourkela and Bokaro Private ITI, etc.

Vocational and specialised skill development training targeted towards sustainable income generation has been provided to 1600 youths and 2400 women of peripheral villages in areas such as Nursing, Physiotherapy, LMV Driving, Computers, Mobile repairing, Welder, Fitter, Electrician training, Improved agriculture, Mushroom cultivation, Goatery, Poultry, Fishery, Achar/Pappad/Agarbati/Candle making, Screen printing, Handlooms, Sericulture, Yarn Weaving, Tailoring, Sewing and embroidery, Gloves, Spices, Towels, Gunny-bags, Low-cost-Sanitary Napkins, Sweet Box, Bans/Jute Shilp, Smokeless chullah making, etc.



Connectivity & Water facilities in Rural Areas

Over 79.03 lakh people across 450 villages have been connected to mainstream by SAIL, since its inception, by constructing and repairing roads. Over 8176 water sources have been installed, since inception, thereby enabling easy access to drinking water to over 50 lakh people living in farflung areas.

Environment Sustainability

Maintenance of parks, water bodies, botanical gardens and plantation & maintenance of over 5 lakh trees in the townships is being undertaken.



Support to Divyangs (Differently Abled) and Senior Citizens

Divyang (children/people) are being supported through provision of equipment like-tricycle, motorized vehicles, calipers, hearing aids, artificial limbs, etc. SAIL supports centres and programmes at its Plants like "Schools for blind, deaf & mentally challenged children" and "Home and Hope" at Rourkela; "Ashalata Kendra" at Bokaro; various programs like "Handicapped Oriented Education Program" and "Durgapaur Handicapped Happy Home" at Durgapur; and "Cheshire Home" at Burnpur. Old age homes are being supported at different Plant townships like "Siyon Sadan" at Bhilai, "Abasar", "Acharya Dham" at Durgapur, "Sr. Citizens Home" at Rourkela, etc.

Series of events were organised across the Company to celebrate the 'International Day of Persons with Disabilities' commencing on 3rd December, 2024 in alignment of ongoing 'Azadi ka Amrit Mahotsav'. The assistive aids & devices like Tricycle, Motorized Vehicles, Calipers, Hearing Aids, Smart Phones, Smart Canes, etc. provided by Artificial Limbs Manufacturing Corporation of India (ALIMCO) were distributed among Divyangjans through Plants/Units and Corporate Office at New Delhi.



Sports, Art & Culture

SAIL is regularly organizing inter-village sports tournaments, extending support to major National sports events and tournaments. Also, supporting and coaching aspiring sportsmen and women through its residential sports academies at Bokaro (Football), Rourkela (Hockey)-with world class astro-turf ground, Bhilai (Athletics for boys), Durgapur (Athletics for girls) and Kiriburu, Jharkhand (Archery). Cultural events like Chhattisgarh Lok Kala Mahotsav, Gramin Lokotsav are organised every year. SAIL is supporting Special Olympics Bharat (SOB) towards organising National Sports Preparatory Training Camps for participation of the Divyang athletes in the upcoming Special Olympics World Games and other sports tournaments.



Promotion of Sports at SAIL Steel PLant

Development of Aspirational Districts: In order to provide comprehensive development of both physical and social infrastructure, SAIL has undertaken CSR activities in 6 Aspirational Districts, viz. Kanker, Narayanpur and Rajnandgaon in Chhattisgarh and West Singhbhum, Bokaro and Ranchi in Jharkhand.



SAIL Employees Rendering Volunteerism and Initiatives for Community Engagement (SERVICE): It supports volunteer activities and community outreach by SAIL employees.





SAIL Corporate Awards

2023 &

Awards Distribution

24 March



AWARDS AND ACCOLADES

Awards for Excellence & 2024

Tribution Ceremony

March 2025



Steel Authority of India Limited (SAIL) has upheld its tradition of excellence by receiving numerous accolades across diverse sectors. In FY 2024-25, the company reinforced its leadership in environmental stewardship, corporate communication, and employee welfare, solidifying its position as a pioneer in India's steel industry.

SAIL

- SAIL adjudged as “Circularity Champion” in the “Outlook Planet Sustainability Summit & Awards 2024”, by the Outlook Group, for aligning Principles of Circularity across all its processes related to iron & steelmaking in order to improve its sustainability.
- SAIL declared as WINNER of the “Golden Peacock Environment Management Award 2024” in Steel Sector category by the Institute of Directors to recognize outstanding achievements in the area of environment management.
- SAIL has been recognized as one of India’s Best Employers among Nation Builders for 2024 by Great Place to Work Institute, India. Said prestigious award acknowledges SAIL’s legacy of unwavering commitment to nation-building and company’s efforts to create a high trust workplace culture.
- Environment Management Division adjudged as Winner of “Greentech PCWR Award 2024” in PCWR Excellence Category by Greentech Foundation.
- SAIL received the Silver Award in Special Categories (Old age/Specially-abled) at 11th National CSR Summit & CSR Times Awards 2024.
- SAIL has been conferred with eight National awards by the Public Relations Society of India (PRSI) held in Raipur, Chhattisgarh. SAIL was recognized in various categories viz. e-Newsletter for SAIL Track, Corporate Film (English), Best Communication Campaigns (Internal Publics) for SAIL Gaurav Diwas celebration, House Journal (English) for SAIL News, Best PR Programme for Promoting Science & Technology for steel plant technologies, Best Use of social media in a Corporate Campaign for promoting green steel, Corporate Website, as well as Annual Report.
- SAIL has won SHRM HR Excellence Awards 2024

in the following categories:

- “PSE-Excellence in inclusion, Equity & Diversity” for enhancing workplace diversity, equity, and inclusion in alignment with the organization's vision, resulting in positive organizational outcomes.
- “PSE-Excellence in Managing the Distributed Workforce” recognizing organizations that excel in managing a workforce spread across diverse locations/ geographies.
- SAIL won two awards at the Governance Now 11th PSU Awards in the categories of Excellence in Infrastructure Development and Contribution to National Security & Defence. These accolades highlight SAIL's key role in infrastructure and national security.

Bhilai Steel Plant (BSP)

- BSP, SAIL adjudged as the WINNER of “Greentech PCWR Award 2024” by Greentech Foundation for outstanding achievement in ‘Innovative Waste Management Technology Category’.



- BSP, SAIL also received the “Wings of Steel” award, from India Steel Association (ISA) for advancing gender diversity and inclusion, furthering BSP’s commitment to fostering a diverse and inclusive workplace in challenging environment.
- BSP, SAIL won the ‘Golden Peacock Award for HR Excellence for the year 2024.
- BSP, SAIL bagged the 25th CII National Energy Excellence award 2024 for its energy efficiency

and innovative Project for Paver block manufacturing at BSP'S SAIL Green Tiles Plant.



Durgapur Steel Plant (DSP)

- DSP, SAIL has won the 'Golden Peacock Award for Business Excellence for the year 2025.

Rourkela Steel Plant (RSP)

- RSP, SAIL adjudged as the WINNER of "Greentech PCWR Award 2024" by Greentech Foundation for outstanding achievement in 'PCWR Excellence Category'.
- RSP, SAIL has won Kalinga Environment Excellence Award 2023 in the Five Star Category from Institute of Quality and Environment Management Services. The award was bestowed in recognition of outstanding achievements in environmental management during the year 2023.



- RSP, SAIL has won the Productivity Excellence Award 2024 in Platinum and Gold category.
- RSP, SAIL bagged the "Tusker Entrepreneurship and Professional Leadership Award 2024" for Corporate Communication (Gold Award) and for Rajbhasha promotional initiatives (Silver Award) from Indo Continental Trade & Entrepreneurship Promotion Council.
- RSP, SAIL was awarded the 'Odisha CSR &

Sustainability Excellence Award-2024' in the Community Impact (Public Sector) category from



Assocham for exemplary contribution towards CSR & sustainability.

- RSP, SAIL won the prestigious "Greentech Pollution Control Waste Management and Recycling (PCWR) Excellence Award 2024" for outstanding achievement in Environment Management and Waste Utilization and Recycling Efforts.



- RSP, SAIL bagged the prestigious "GEEF Global Sustainability Award 2024" instituted by the Global Energy & Environment Foundation (GEEF), in recognition of RSP's outstanding achievements in environmental management.



Bokaro Steel Plant (BSL)

- BSL, SAIL conferred with 5 Star rating in the “Kalinga Environment Excellence Award 2023”, organised by the Institute of Quality and Environment Management Services (IQEMS), Bhubaneswar in association with Odisha State Pollution Control Board to recognize highest level of commitment in environment conservation and contributing in enhancement of quality of life of communities wherein SAIL operates.
- BSL, SAIL has won the “Greentech Global EHS Award 2024” from Greentech foundation for outstanding achievements in Environment, Health & Safety of its employees and workers.

IISCO Steel Plant (ISP)

- ISP, SAIL has won the ‘Gold Award’ in the International Convention on Quality Control Circles organized by Sri Lanka Association for the Advancement of Quality and Productivity. ISP has been awarded the ‘Kalinga Safety Excellence National Award 2023’ by Institute of Quality and Environment Management Services.

Salem Steel Plant (SSP)

- SAIL/SSP won Platinum Award in IEI Industry Excellence Awards 2024 under category B in the Group Engineering Manufacturing and Processing for outstanding performance with a Higher order of Business Excellence organized by The Institution of Engineers (India).

- SAIL/SSP has won the ‘IIM National Sustainability Awards 2024’ under Secondary Steel Plants / Alloy Steel plant category organized by The Indian Institute of Metals. Award was received on 20th November’2024.
- SAIL/SSP QC Team won Gold Award for Lean Quality Circle in 49th International Convention on Quality Control Circles 2024 organized by Sri Lanka Association for the Advancement of Quality and Productivity. Award was received on 14th November’2024.

Chandrapur Ferro Alloy Plant (CFP)

- CFP, SAIL bagged the ‘Golden Peacock Occupational Health & Safety Award’ for the year 2024 (Steel Sector).
- SAIL/CFP bagged the ‘Kalinga Safety Excellence Award-Gold’ for the year 2023.

Collieries

- SAIL/Collieries Division bagged 3rd prize, Over All Member in 53rd All India Mines Rescue Competition- 2024. SAIL/Collieries Division has also been awarded the ‘Platinum Award in Kalinga Safety Excellence Award-2023’ by Institute of Quality and Environment Management Services.

Jharkhand Group of Mines

- Teams from Jharkhand Group of Mines, Bokaro Steel Plant/SAIL, won several awards during the Mines, Environment & Mineral Conservation Week.



GRI Content Index

SAIL supplied high-strength steel for the

Mumbai-Vadodara Expressway



GRI Content Index

Statement of use	Steel Authority of India Limited has reported in accordance with the GRI Standards for the period 1 st April 2024 -31 st March 2025.
GRI 1 used	GRI 1: Foundation 2021

			Omission		
GRI Standard	Disclosure	Location	Requirement(s) Omitted	Reason	Explanation
General disclosures					
GRI 2: General Disclosures 2021	2-1 Organizational details	10			
	2-2 Entities included in the organization's sustainability reporting	5, 6, 7, 10, 11,12	A gray cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.		
	2-3 Reporting period, frequency and contact point	6, 7			
	2-4 Restatements of information	7			
	2-5 External assurance	7			
	2-6 Activities, value chain and other business relationships	10, 11, 12,13			
	2-7 Employees	130			
	2-8 Workers who are not employees	130			
	2-9 Governance structure and composition	24, 25			
	2-10 Nomination and selection of the highest governance body	25			
	2-11 Chair of the highest governance body	25			
	2-12 Role of the highest governance body in overseeing the management of impacts	25, 26, 27			
	2-13 Delegation of responsibility for managing impacts	25, 26			
	2-14 Role of the highest governance body in sustainability reporting	55			
	2-15 Conflicts of interest	28			
	2-16 Communication of critical concerns	28			
	2-17 Collective knowledge of the highest governance body	25			
	2-18 Evaluation of the performance of the highest governance body	29			
	2-19 Remuneration policies	29			
	2-20 Process to determine remuneration	29			
	2-21 Annual total compensation ratio	29			

For the Content Index - Essentials Service, GRI Services reviewed that the GRI Content Index has been presented in a way consistent with the requirements for reporting in accordance with the GRI Standards, and that the information in the index clearly presented and accessible to the stakeholders.

GRI Standards	Disclosure	Location	Omission		
			Requirement(s) Omitted	Reason	Explanation
	2-22 Statement on sustainable development strategy	2, 3			
	2-23 Policy commitments	34			
	2-24 Embedding policy commitments	34			
	2-25 Processes to remediate negative impacts	29			
	2-26 Mechanisms for seeking advice and raising concerns	30			
	2-27 Compliance with laws and regulations	24			
	2-28 Membership associations	13			
	2-29 Approach to stakeholder engagement	52, 53, 54, 55			
	2-30 Collective bargaining agreements	131			
Material topics					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	52, 55	A gray cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.		
	3-2 List of material topics	56			
Occupational Health & Safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	116, 117, 118, 119, 121, 125, 126			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	116, 117, 118, 125			
	403-2 Hazard identification, risk assessment, and incident investigation	116, 117, 125, 126			
	403-3 Occupational health services	125			
	403-4 Worker participation, consultation, and communication on occupational health and safety	118			
	403-5 Worker training on occupational health and safety	119, 127			
	403-6 Promotion of worker health	118, 125			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	121, 125, 126			
	403-8 Workers covered by an occupational health and safety management system	118			
	403-9 Work-related injuries	127			
	403-10 Work-related ill health	127			
Water Use & Recycling and Water Stress in Operations					
GRI 3: Material Topics 2021	3-3 Management of material topics	84, 86			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	84			
	303-2 Management of water discharge-related impacts	86			
	303-3 Water withdrawal	84			
	303-4 Water discharge	86			
	303-5 Water consumption	84, 85			

GRI Standards	Disclosure	Location	Omission		
			Requirement(s) Omitted	Reason	Explanation
Employee Training & Development					
GRI 3: Material Topics 2021	3-3 Management of material topics	131, 138			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	138			
	404-2 Programs for upgrading employee skills and transition assistance programs	138			
	404-3 Percentage of employees receiving regular performance and career development reviews	131			
Waste Management					
GRI 3: Material Topics 2021	3-3 Management of material topics	89			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	89			
	306-2 Management of significant waste-related impacts	89			
	306-3 Waste generated	90			
	306-4 Waste diverted from disposal	89			
	306-5 Waste directed to disposal	90			
Greenhouse Gas Emissions and Air Pollution					
GRI 3: Material Topics 2021	3-3 Management of material topics	68, 81, 92			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	68			
	305-2 Energy indirect (Scope 2) GHG emissions	68			
	305-3 Other indirect (Scope 3) GHG emissions	68			
	305-4 GHG emissions intensity	68, 69			
	305-5 Reduction of GHG emissions	68, 69, 84			
	305-6 Emissions of ozone-depleting substances (ODS)	92			
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	81			
Business Ethics & Anti-Corruption					
GRI 3: Material Topics 2021	3-3 Management of material topics	46			
GRI 205: Anti-corruption 2016 and actions taken	205-1 Operations assessed for risks related to corruption	46			
	205-2 Communication and training about anti-corruption policies and procedures	46			
	205-3 Confirmed incidents of corruption and actions taken	46			

GRI Standards	Disclosure	Location	Omission		
			Requirement(s) Omitted	Reason	Explanation
Energy Management, Decarbonization Roadmap and Climate Risk Strategy					
GRI 3: Material Topics 2021	3-3 Management of material topics	70			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	69, 70			
	302-2 Energy consumption outside of the organization	-		Information unavailable	Gathering of required information is challenging due to limited data availability considering the entire supply chain or product life cycle. SAIL is contemplating to streamline this with the help of a consultant in near future
	302-3 Energy intensity	69			
	302-4 Reduction of energy consumption	69			
	302-5 Reductions in energy requirements of products and services	-		Information unavailable	The manufacturing of iron and steel is energy intensive relative to the energy requirements of products while being used or in services. SAIL has prioritized reporting of energy consumption within the organization.
Innovation & R&D					
GRI 3: Material Topics 2021	3-3 Management of material topics	109,110, 111, 112, 113			
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	109, 111, 112			
	417-2 Incidents of non-compliance concerning product and service information and labeling	112			
	417-3 Incidents of non-compliance concerning marketing communications	112			
Biodiversity Impact					
GRI 3: Material Topics 2021	3-3 Management of material topics	100, 101			

GRI Standards	Disclosure	Location	Omission		
			Requirement(s) Omitted	Reason	Explanation
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	100			
	304-2 Significant impacts of activities, products and services on biodiversity	101			
	304-3 Habitats protected or restored	100, 101			
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	100			
Community Engagement					
GRI 3: Material Topics 2021	3-3 Management of material topics	110, 144, 148			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	148			
	203-2 Significant indirect economic impacts	144			
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	7, 110			
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	144			
	413-2 Operations with significant actual and potential negative impacts on local communities	144			
Product Lifecycle & Circularity					
GRI 3: Material Topics 2021	3-3 Management of material topics	92, 93			
GRI 301: Materials 2016	301-1 Materials used by weight or volume	92, 93			
	301-2 Recycled input materials used	92, 93			
	301-3 Reclaimed products and their packaging materials	92, 93			
Human Rights					
GRI 3: Material Topics 2021	3-3 Management of material topics	112, 131, 132, 134, 135			
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	131			
	202-2 Proportion of senior management hired from the local community	131			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	131			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	135			
	401-3 Parental leave	132			
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	131, 132			

GRI Standards	Disclosure	Location	Omission		
			Requirement(s) Omitted	Reason	Explanation
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	25, 131			
	405-2 Ratio of basic salary and remuneration of women to men	131			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	131, 135			
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	131			
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	134			
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	134			
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	134			
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	134			
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	112			
	414-2 Negative social impacts in the supply chain and actions taken	112			
AI & Digitalization in Operations					
GRI 3: Material Topics 2021	3-3 Management of material topics	112			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	112			
Supply Chain Resilience					
GRI 3: Material Topics 2021	3-3 Management of material topics	112, 113			
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	112			
	308-2 Negative environmental impacts in the supply chain and actions taken	113			
Customer Health & Safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	112			
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	112			
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	112			

GRI Standards	Disclosure	Location	Omission		
			Requirement(s) Omitted	Reason	Explanation
Resilience to Regulatory Changes					
GRI 3: Material Topics 2021	3-3 Management of material topics	62, 63, 64, 71,112			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	63			
	201-2 Financial implications and other risks and opportunities due to climate change	20, 71			
	201-3 Defined benefit plan obligations and other retirement plans	135			
	201-4 Financial assistance received from government	62			
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti- trust, and monopoly practices	112			
GRI 207: Tax 2019	207-1 Approach to tax	63			
	207-2 Tax governance, control, and risk management	63			
	207-3 Stakeholder engagement and management of concerns related to tax	63			
	207-4 Country-by-country reporting	63			
GRI 415: Public Policy 2016	415-1 Political contributions	62			

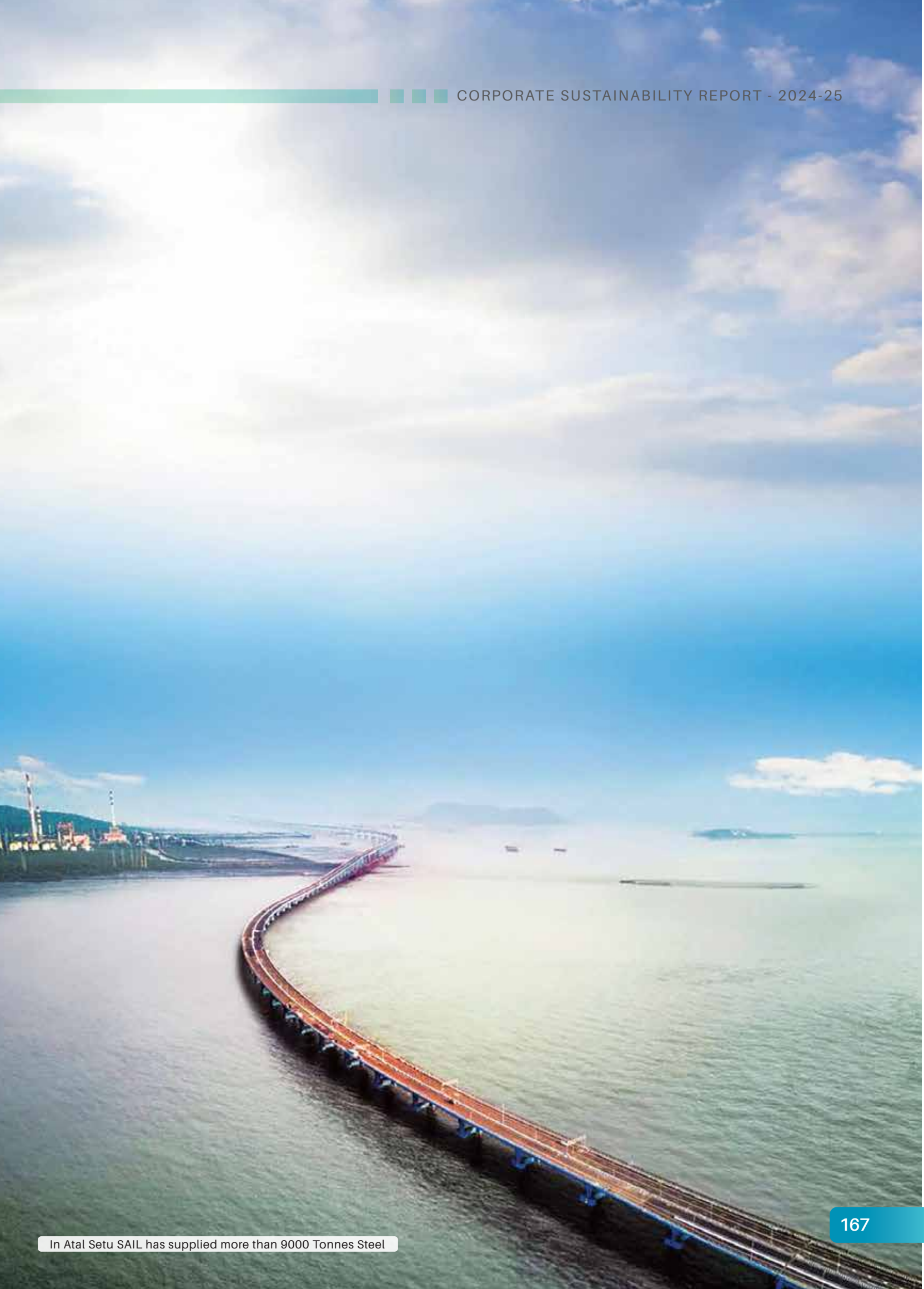
Abbreviations	
AGM	Annual General Meeting
AIDS	Acquired Immune Deficiency Syndrome
AIMA	All India Management Association
ISMOC	All India Steel Medical Officers' Conference
AOD	Argon Oxygen Decarburization
ASP	Alloy Steels Plant
ATP	Annual Training Plan
BDL	Below Detectable Level
BF	Blast Furnace
BOD	Biochemical Oxygen Demand
BOF	Basic Oxygen Furnace
BPL	Below Poverty Line
BPTG	Back Pressure Turbine Generator
BSC	Board Sub-Committee
BSL	Bokaro Steel Plant
BSP	Bhilai Steel Plant
CAD	Corporate Affairs Division
CDA	Conduct, Discipline and Appeal
CDCP	Coke Dry Cooling Plant
CEMDE	Centre for Environment Management of Degraded Ecosystem
CET	Centre for Engineering and Technology
CFP	Chandrapur Ferro Alloy Plant
CHSGP	Cast House Slag Granulation Plant
CII	Confederation of Indian Industries
CMO	Central Marketing Organisation
CO	Coke Oven
CO ₂	Carbon Dioxide
COD	Chemical Oxygen Demand
COP	Conference of the Parties
CPP	Captive Power Plant
CPTI	Central Power Training Institute
CREP	Corporate Responsibility for Environment Protection
Cr.	Crore (Ten Millions)
CSR	Corporate Social Responsibility
DG	Diesel Generator
DMB	Disability Medical Board
DMRC	Delhi Metro Rail Corporation
Dolo	Dolomite
DPE	Department of Public Enterprises
DSO	Departmental Safety Officer
DSP	Durgapur Steel Plant
EAF	Electric Arc Furnace
EBIDTA	Earnings Before Interest, Tax, Depreciation and Amortization

Abbreviations	
ECG	Electrocardiography
ED	Executive Director
EMD	Environment Management Division
EMS	Environment Management System
ETPs	Effluent Treatment Plants
FICCI	Federation of Indian Chambers for Commerce and Industry
GCal	Giga Calorie
GCP	Gas Cleaning Plant
GD	Growth Division
GHG	Green House Gas
GoI	Government of India
GRI	Global Reporting Initiative
HIRA	Hazard Identification and Risk Assessment
HIS	Health Information System
HR	Human Resource
HRD	Human Resource Development
HRM	Hot Rolling Mill
IIM	Indian Institute of Metals
IITF	India International Trade Fair
ILO	International Labour Organization
INDCs	Intended Nationally Determined Contributions
IPSS	Inter Plant Standard - Steel
ISO	International Organization for Standardization
ISP	IISCO Steel Plant
ISPs	Integrated Steel Plants
ITI	Industrial Training Institute
IUCN	International Union for Conservation of Nature
JCSSI	Joint Committee on Safety, Health and Environment in the Steel Industry
JV	Joint Venture
JVC	Joint Venture Company
KAM	Key Account Management
KL	Kilo Litres
kWh	Kilo Watt Hour
Lakh	Hundred Thousand
LD	Linz Donawitz
LED	Light Emitting Diode
LEO	Learning from Each Other
LHB	Linke Hofmann Busch
IISCO	Indian Iron & Steel Company
LMV	Light Motor Vehicle
LODR	Listing Obligations and Disclosure Requirements
MMUs	Mobile Medical Units

Abbreviations	
MODEX	Modernisation-Expansion
MoEFCC	Ministry of Environment, Forest & Climate Change
MoU	Memorandum of Understanding
MSME	Micro, Small & Medium Enterprise
MSVs	Model Steel Village
MT	Millions Tonne
MTI	Management Training Institute
MTs	Management Trainees
MWp	Megawatt Peak
NGO	Non-Governmental Organization
NHPC	National Hydroelectric Power Corporation
NJCS	National Joint Committee for the Steel Industry
NMDC	National Mineral Development Corporation
NOHSC	National Occupational Health Service Centre
NOx	Oxides of Nitrogen
NSC	National Safety Council
NTPC	National Thermal Power Corporation
ODS	Ozone Depleting Substances
OH&S	Occupational Health & Safety
OHS	Occupational Health Service
OHSAS	Occupational Health and Safety Management System
OPD	Out Patient Department
PAT	Profit After Tax
PCB	Poly Chlorinated BiPhenyls
PIWs	Performance Improvement Workshops
PM	Particulate Matter
PMGSY	Pradhan Mantri Gramin Sadak Yojna
POPs	Persistent Organic Pollutants
PPEs	Personal Protective Equipments
PSC	Portland Slag Cement
PSU	Public Sector Undertaking
QMS	Quality Management System
R&D	Research & Development
RDCIS	Research & Development Centre for Iron & Steel
RINL	Rashtriya Ispat Nigam Ltd.
UTES	Rail India Technical and Economic Service
RSP	Rourkela Steel Plant
₹	Rupees
S&OP	Sales & Operations Planning
SAIL	Steel Authority of India Limited
SCL	Steel Complex Limited
SCOPE	Standing Conference of Public Enterprises
SD	Sustainable Development

Abbreviations	
SEBI	Securities & Exchange Board of India
SED	Safety Engineering Department
SEFI	Steel Executives Federation of India
SESBF	SAIL Employees Superannuation Benefit Fund
SGL	Shot Grinding Line
SGW	SAIL Growth Works, Kulti
SHE	Safety, Health and Environment
SMPs	Standard Maintenance Practices
SMS	Steel Melting Shop
SO ₂	Sulphur Dioxide
SOP	Standard Operating Practices
SRU	SAIL Refractory Unit
SSO	SAIL Safety Organization
SSP	Salem Steel Plant
TAB	Training Advisory Board
TCE	Trichlorethylene
tcs	Tonnes of Crude Steel
THF	Twin Hearth Furnace
TJ	Tera Joule
TMT	Thermo Mechanically Treated
TRT	Top Pressure Recovery Turbine
TRTG	Top Recovery Turbine Generator
UNIDO	United Nations Industrial Development Organisation
VC	Video Conferencing
VISL	Visvesvaraya Iron and Steel Plant
VVVF	Variable Voltage Variable Frequency
WCPS	World Confederation of Productivity Science
WIPS	Forum of Women in Public Sector
WSA	World Steel Association
ZLD	Zero Liquid Discharge











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