



Government of India
Ministry of Steel



Annual Report
2024-25





सत्यमेव जयते

GOVERNMENT OF INDIA
**MINISTRY OF
S T E E L**

ANNUAL REPORT
2024-25

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HIGHLIGHTS

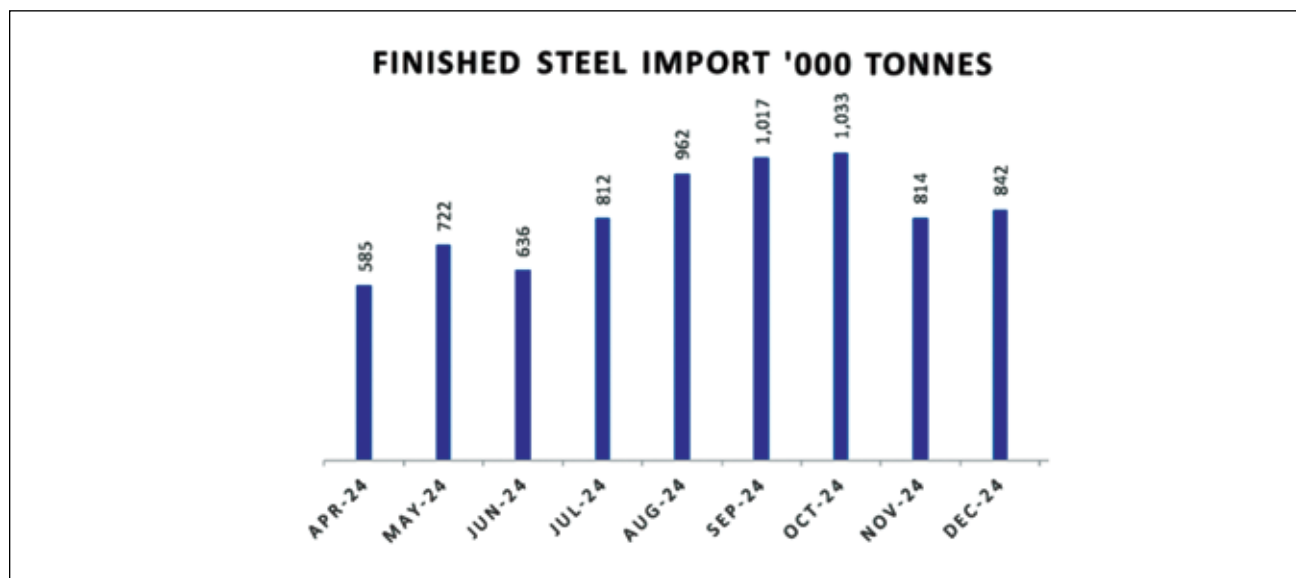
1.1 Trends and Developments in Steel Sector

- During calendar year 2024, India was the 2nd largest producer of Crude Steel as per data (provisional) released by the World Steel Association on 24 January, 2025.
- Crude Steel production expanded from 109.137 Million Tonnes (MT) in 2019-20 to 144.299 MT in 2023-24. Crude steel production in 2023-24 registering a growth of 13.4% over 127.197 MT in 2022-23.
- Capacity for domestic crude steel expanded from 142.299 MTPA in 2019-20 to 179.515 MTPA in 2023-24.
- During April-December, 2024-25 (Provisional), the following was the industry scenario (Source: JPC):
 - a) Crude Steel production stood at 112.011 MT. SAIL, RINL, NSL, TSL Group, AM/NS, JSWL Group & JSPL together produced 63.754 MT with a share of 57% in total production which was up by 0.3% over the CPLY. The rest amounting to 48.255 MT came from the Other Producers. With 84% share in total Crude Steel production, the Private Sector produced 94.458 MT Crude Steel which was up by 6.1% over the Corresponding Period Last Year (CPLY).
 - b) Pig Iron production was at 6.332 MT, up by 13.2% over the CPLY. With a share of 27% in total Pig Iron production, SAIL, RINL, NSL, TSL Group, AM/NS, JSWL Group & JSPL together produced 1.710 MT which was down by 1.5% over the CPLY. The rest came from the Other Producers with a growth of 19.8% over the CPLY. The Private Sector produced 5.677 MT which was up by 11.5% over the CPLY.
 - c) Facts for Finished Steel (non-alloy + alloy/stainless) in April-December, 2024-25 (Provisional, Source: JPC):
 - ◆ Production of Finished Steel stood at 107.192 MT showing a growth of 4.4% over the CPLY.
 - ◆ Export of Finished Steel stood at 3.600 MT showing a decline of 24.6% over the CPLY.
 - ◆ Import of Finished Steel was at 7.424 MT, up by 22.7% over the CPLY.
 - ◆ India was a net importer of Finished Steel.

- ◆ Consumption of Finished Steel was 111.493 MT showing a growth of 11.4% over the CPLY.

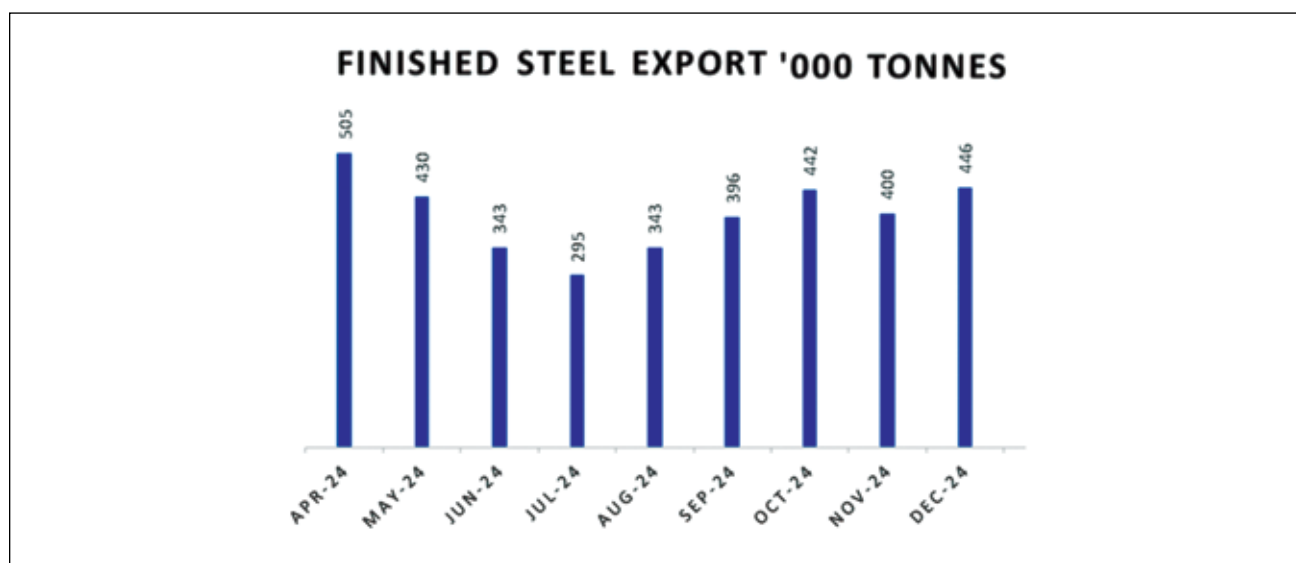
Overall Steel Trade Scenario:

During April-December 2024, the overall import of finished steel was 7.42 million tonnes (MnT), an increase of 22.7% as compared to the corresponding period last year. The total value of these imports was Rs. 61,171.5 crores.



Source: Joint Plant Committee (JPC)

India's finished steel exports for the period April-December 2024 were 3.6 million tonnes, down 24.6% from the corresponding period last year. The total value of exports was Rs. 29,821.0 crores. Exports declined from April to July 2024 but have been rising since August 2024, except for a dip in November, 2024.



Source: Joint Plant Committee (JPC)

India was a net importer of finished steel with overall trade deficit of Rs. 31,350 crore during April-December, 2024.

- ◆ Detailed information on production, consumption, import and export of Finished Steel and production of crude steel for the last five years (2020-21 to 2023-24) and April-December 2024-25 (Provisional) are shown in the table below:-

(in million tonnes)

Item	2020-21	2021-22	2022-23	2023-24	2024-25* (upto December, 2024)
Crude Steel					
Production	103.545	120.293	127.197	144.299	112.011
Finished Steel					
Production	96.204	113.597	123.196	139.153	107.192
Consumption	94.891	105.752	119.893	136.291	111.493
Import	4.752	4.669	6.022	8.320	7.424
Export	10.784	13.494	6.716	7.487	3.600

Source: JPC; * provisional

1.2 Major Policy Interventions:

Production Linked Incentive (PLI) Scheme: PLI Scheme for domestic production of specialty steel has been approved with an outlay of Rs.6322 crore by the Cabinet. The scheme is set to commence from FY 2023-24 (PLI to be released in FY 2024-25). Production Linked Incentive (PLI) Scheme for Specialty Steel, approved by the Union Cabinet, was notified in the official Gazette on 29.07.2021 and detailed Scheme guidelines were published on 20.10.2021. Under the Scheme, Memorandum of Understanding (MoU) has been signed with 27 selected companies having 57 applications on 17.03.2023. This Scheme will attract an investment commitment of Rs. 29,530 Crore with capacity addition of 24,780 thousand tonne in five years. As on 31st December, 2024 44 MoUs are active and have achieved an investment of about ₹ 18,850 crore and employment generation of about 8930.

Production Linked Incentive (PLI) Scheme 1.1 for Specialty Steel: Based on the feedback from industry, 2nd round of the PLI scheme was launched on January 06, 2025 and termed as PLI Scheme 1.1. The scheme shall be within the Budget Outlay of Rs. 6322 Crore and shall commence from FY 2025-26. The scheme is open for fresh application and subsequent to application process, the applicants shall be selected through selection process as per scheme guidelines.

PM GatiShakti Masterplan: In order to address the concerns in logistics in the Steel Sector, Ministry of Steel has onboarded itself as user of infrastructure on PM GatiShakti Masterplan by uploading the Geo locations of more than 2100 steel units functioning in the country. Additionally, all the products and production capacity of all the steel units have been uploaded on PM GatiShakti NMP.

Quality Control on Steel: 151 Indian Standards have been notified under the Quality Control Orders so far to ensure availability of quality steel to end users. Standards have been notified under the Quality Control Order covering carbon steel, alloy steel and stainless steel.

Biju Patnaik National Steel Institute (BPNSI), Kalinganagar, Jajpur Odisha: As a part of the restructuring exercise for up-gradation of the institute (BPNSI), the Academic Council of the Institute has been constituted. An additional grant from JPC has been provided to kick-start the activities of the Institute. Institute has already started offering some short-terms courses and is planning to start some more courses.

National Institute of Secondary Steel Technology (NISST), Mandi Gobindgarh, Punjab: NISST has been provided additional Grant from JPC for its strengthening. The Grant has been provided for procurement of equipment, upgradation of its labs and renovation of seminar/lecture halls. NISST has stated working with various industry associations to widen its outreach. It has organized 6 webinars in association with GIZ for dissemination of knowledge about Energy Efficiency in Secondary Steel Sector.

1.3 Highlights of Central Public Sector Enterprises (CPSEs) during 2024-25

1.3.1 Steel Authority of India Ltd. (SAIL)

- During Apr.-Dec.'24, Crude Steel Production of 14.08 MT and finished Steel production of 11.33 MT, was achieved.
- Sales Turnover of Rs. 72,595 crore (upto December, 2024) has been achieved as against Rs. 76,801 crore during corresponding period last year (CPLY).
- Profit Before Tax (PBT) of Rs.1,445 crore (upto December, 2024) has been registered as against PBT of Rs.2,359 crore during CPLY.
- Profit After Tax (PAT) of Rs. 970 crore (upto December, 2024) has been achieved as against Rs. 1,722 crore during CPLY.
- Net worth of the company was Rs. 52,139 crore as on 31.03.23, Rs. 54,131 crore as on 31.03.2024 and Rs. 54,623 crore as on 31.12.2024.

1.3.2 Rashtriya Ispat Nigam Ltd. (RINL)

Operations:

- Improved production of High End Value Added Steel to 13.28 lakh tonnes from 12.96 lakh tonnes in CPLY.
- Saleable steel production of 23.73 lakh tonnes achieved by liquidating more than 30,000 tons of semis from inventory during the period of Apr.-Dec.'24.

Sales:

- Continuous improvement in the share of sales in high NSR Regions to around 63% of total domestic sales from 57% in 2023-24 and 51% in 2022-23, to enhance overall contribution.
- Continuous increase in sales of High End Value Added Steel to 35% of domestic sales from 31% in 2023-24 and 27% in 2022-23.

- Continuous increase in direct dispatch quantity to about 42% of total sales, from 30% in 2023-24 and 24% in 2022-23, which enabled RINL to reduce payment cycle period and improved NSR by avoiding handling at branch stockyards.
- Addl. Revenue Generation: Generated additional revenue of Rs. 336 Crore by liquidating Iron & Steel scrap of around 95,200 MT.

1.3.3 NMDC Ltd.

- The turnover of the company has increased by about 13% during 2024-25 (up to December, 24) as compared to the previous period.
- Capital expenditure of Rs. 2,893 crore (including Rs.100 crore incurred towards doubling of KK line from Kirandul to Jagadapur) has been incurred during FY 2024-25 upto December, 2024.
- Net worth of the Company stood at Rs. 30,128 crore as on 31.12.2024 which is 17% higher than the previous period ending 31.12.2023 i.e. Rs. 25,689 crore.

1.3.4 NMDC Steel Ltd.(NSL)

- NSL actual performance during FY' 2024-25 upto December, 24:
 - Hot Metal production –14.30 Lakh Tonne
 - Liquid Steel Production –10.47 Lakh Tonne
 - Crude Steel production –10.18 Lakh Tonne
 - Hot Rolled Coil production – 9.95 Lakh Tonne
- Projection of Production from January, 25 to March, 25:
 - Hot Metal production – 6.09 Lakh Tonne
 - Liquid Steel Production – 5.07 Lakh Tonne
 - Crude Steel production – 4.92 Lakh Tonne
 - Hot Rolled Coil production – 4.84 Lakh Tonne
- Sales Turnover of Rs. 5665 crore during FY'25 till December, 24 has been achieved as against Rs.1230.26 crore during previous year till December, 23. Projected during January, 25-March, 25 is Rs. 2474 Crore.
- Profit Before Tax (PBT) of Rs. (-2657) crore during FY'25 till December, 24 has been achieved as against PBT of Rs. (-927.92) crore during previous year till December, 23. Projected during January, 25-March, 25 is Rs. (-382) Crore.
- Profit After Tax (PAT) of Rs. (-1900) crore during FY'25 till December, 24 has been achieved as against Rs.(-699.49) crore during previous year till December, 23. Projected during January-March, 2025 is Rs. (-274) Crore.
- Net worth of the company was Rs. 13588 crore as on 31.12.2024 as against Rs. 15488.26 crore as on 31.03.2024.

1.3.5 MOIL Ltd.

- Production of 13.30 lakh tonnes of manganese ore upto December, 2024 (Provisional) has been achieved.
- Total income of the company was Rs.1232.47 crore upto December, 2024 (Provisional).
- PBT of Rs. 350.66 crore upto December, 2024 (Provisional) has been achieved.
- PAT of Rs. 262.40 crore upto December, 2024 (Provisional) has been achieved.
- MOIL has paid final dividend of Rs. 51.89 crore during the FY 2024-25 which includes Rs. 27.68 crore paid to Central Government during April-December, 2024.

1.3.6 MECON Ltd.

- Turnover of Rs. 696.52 Crore (Provisional as on 31.12.2024).
- The Net worth of the Company was Rs. 373.19 Crore (provisional as at 31.12.2024).
- Profit Before Tax / Profit After Tax (PBT/PAT) Rs. (-) 95.21Cr. (Provisional as on 31.12.2024).

1.3.7 MSTC Ltd.

- Turnover of Rs. 224.24 crore (provisional, upto 31st December, 2024) has been achieved.
- Profit Before Tax (PBT) of Rs. 171.62 crore (provisional, upto 31st December, 2024) has been achieved.
- Profit After Tax (PAT) of Rs. 128.43 crore (provisional, upto 31st December, 2024) has been achieved.

1.3.8 KIOCL Ltd.

- Production of 2,89,500 Metric Tonnes of Iron Ore Pellets was achieved upto December, 2024 for the Financial Year 2024-25.
- Sales of 3,42,350 Metric Tonnes of Iron Ore Pellets was achieved upto December, 2024 for the Financial Year 2024-25.
- Revenue from Operations of Rs. 343.80 crore has been achieved upto December, 2024 for the Financial Year 2024-25 (Provisional).

ORGANISATIONAL STRUCTURE AND FUNCTIONS OF MINISTRY OF STEEL

2.1 Introduction

The Ministry of Steel is under charge of the Union Minister of Steel and is assisted by Minister of State for Steel. The Ministry is responsible for planning and development of Iron and Steel industry, development of essential inputs such as iron-ore, limestone, dolomite, manganese ore, chromites, ferro-alloys, sponge iron, etc. and other related functions. Details of the subjects allocated to the Ministry may be seen in **Annexure-I**. The details of Minister-in-charge and the officers up to the level of Deputy Secretary are given in **Annexure-II**. The Ministry of Steel has a sanctioned strength of 245 employees out of which 184 employees are in position as on 31st December, 2024.

2.1.1 Key Functions of the Ministry of Steel

- Promoting the development of infrastructure required for enhancing domestic steel production.
- To facilitate adequate availability of raw materials for steel industry from domestic and overseas sources.
- Creating and updating a comprehensive data base for various segments of the steel industry.
- To monitor the physical and financial performance of CPSEs and capital expenditure on projects.
- Monitoring performance of commitments made in the MOUs and modernization and expansion programme of CPSEs.
- Facilitate improvement in performance of Iron and Steel industry through R&D and technology intervention, Quality Control and improvements in techno-economic parameters.
- Boosting domestic demand for steel through promotional efforts.

2.1.2 Key Divisions

The Ministry has 29 Divisions dealing with various subjects. The key divisions include Board Level Appointments, Establishment, Coordination, International Cooperation, Raw Materials, Technical, Industrial Development, Steel Development (Institutes), SAIL, MF, NMDC, MECON,

RINL, KIOCL, MOIL, Trade and Taxation, Information Technology and e-Governance and Industrial Development (Climate and Environment).

2.2 Other Related Organizations of the Ministry of Steel

2.2.1 Joint Plant Committee (JPC)

2.2.1.1 Accredited with ISO 9001: 2015 certification, Joint Plant Committee (JPC) has been designated as the “Primary Agency” by the Ministry of Steel to collect data on the Indian iron and steel industry under the Collection of Statistics Act, 2008, through its regional offices and extension offices engaged in data collection, resulting in the creation and maintenance of a non-partisan databank for this industry.

2.2.1.2 JPC is headed by Joint Secretary, Ministry of Steel as its Chairman and has representatives from the Government of India, steel producers, steel associations, and other organizations as its esteemed Members. JPC performs collection of data and management of database on iron and steel covering:

- Capacity, stock, production data of all steel producing units.
- Domestic Retail Market Prices of major categories of iron and steel.
- Export and Import data of pig iron, sponge iron, finished steel, scrap.
- Consumption data features in the database as a derived item.
- Charge- mix used in steel production.
- MSME profile of units.
- FOB, CIF Prices and landed cost of select steel items.
- Reserves, production, export, import, price data of select raw materials like iron ore, coal and coke, refractory.
- Item-wise, state-wise dispatch of finished steel.
- Active role in pan-India field level collection during Segment Surveys.
- Market Studies to understand emerging trends in the steel industry.
- Organizational support for exhibitions to the Ministry of Steel.

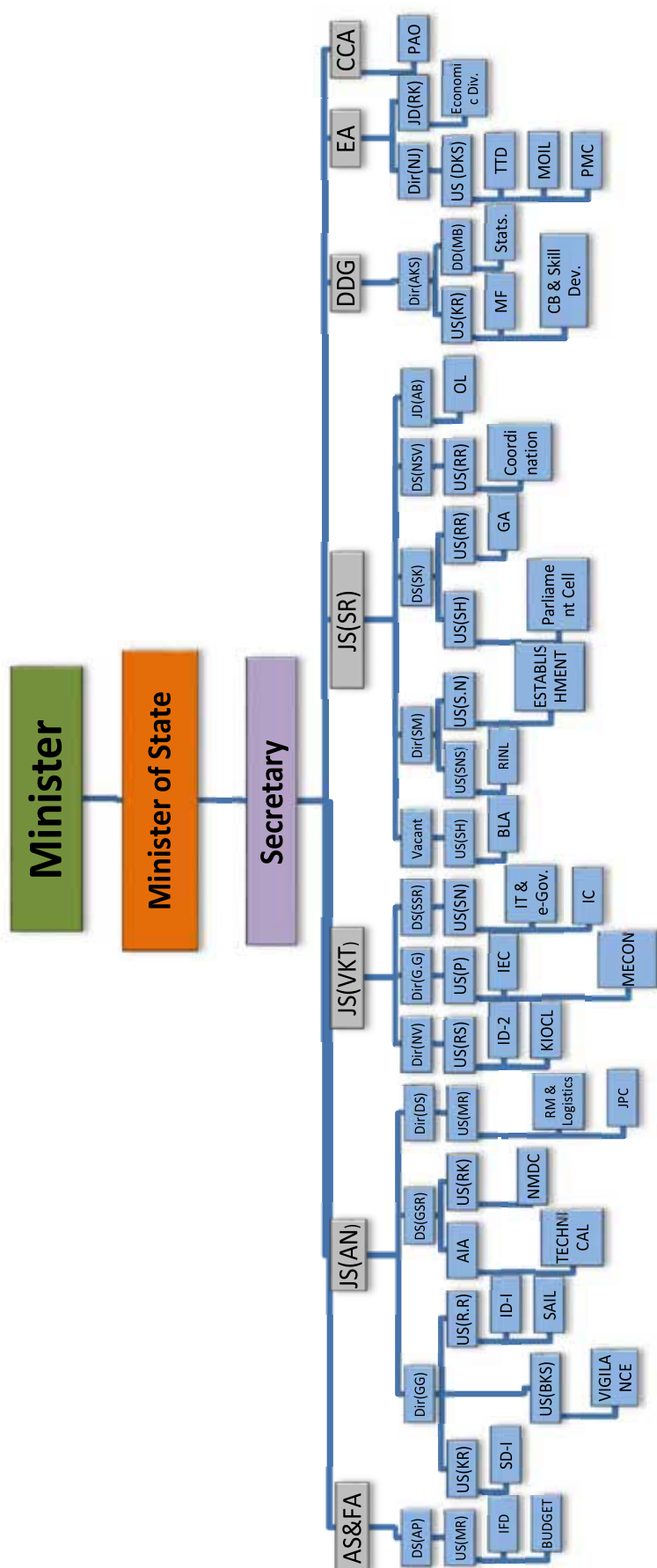
2.2.1.3 A range of publications and data reports, on a monthly and annual basis, ensure the spread of information and data to all stakeholders of the industry. A dynamic website ensures access to data in real-time for all stakeholders.

2.2.2 List of CPSEs under Ministry of Steel is as under:

S. No.	Name of the Company	Headquarters	Major Subsidiaries
1.	SAIL (Steel Authority of India Limited)	Ispat Bhawan, Lodi Road, New Delhi – 110003	SAIL Refractory Co. Ltd. Post Bag No. 565 Salem – 636005 (TN)
2.	RINL (Rashtriya Ispat Nigam Limited)	Administrative Building, Visakhapatnam – 530031 (Andhra Pradesh)	EIL, BSLC & OMDC SAIL Office, Ground Floor, Plot No.271, Bidyut Marg, Shahstri Nagar, Unit – IV, Bhubaneshwar, Odisha – 751 001.
3.	NMDC Ltd.	Khanij Bhawan, 10-3-311/A, Castle Hills, Masab Tank, Hyderabad – 500028 (Telangana)	
4.	NMDC Steel Limited	C/o, NMDC Limited, Khanij Bhawan, Castle Hills, Masab Tank, Hyderabad – 500028 (Telangana)	
5.	MOIL Ltd.	MOIL Bhawan, 1-A, Katol Road, Nagpur – 440013. (Maharashtra)	
6.	MSTC Ltd.	MSTC Ltd., Plot no. CF-18/2, Street No. 175, Action Area 1C, New Town, Kolkata – 700156.	Ferro Scrap Nigam Ltd., (FSNL) FSNL Bhawan, Equipment Chowk, Central Avenue, Bhilai – 490001 (Chhattisgarh)
7.	MECON Ltd.	MECON Limited, Vivekananda Path, Doranda, Ranchi – 834002 (Jharkhand)	
8.	KIOCL Ltd.	II Block, Koramangala Bengaluru – 560034. (Karnataka)	

2.3 Organization Chart of the Ministry as on 31st December, 2024

AS&FA:	Additional Secretary and Financial Adviser
JS:	Joint Secretary
DDG:	Deputy Director General
EA:	Economic Adviser
CCA:	Chief Controller of Accounts
Dir:	Director
AIA:	Addl. Industrial Advisor
DS:	Deputy Secretary
JD:	Joint Director
US:	Under Secretary
DD:	Deputy Director
AD:	Assistant Director



THE INDIAN STEEL SECTOR: PROGRESS AND POTENTIAL

3.1 Introduction

At the time of Independence in 1947, India had only three steel plants – the Tata Iron and Steel Company, the Indian Iron and Steel Company and Visveswaraya Iron and Steel Ltd. and a few electric arc furnace-based plants. The period till 1947 thus witnessed a small but viable steel industry in the country, which operated with a capacity of about 1 million tonne and was completely in the private sector. From the fledgling 1 million tonne capacity status at the time of independence, India has now risen to be the 2nd largest crude steel producer in the world and the largest producer of sponge iron. From a negligible global presence, the Indian steel industry is now globally acknowledged for its product quality. As it traversed its long history since independence, the Indian steel industry has responded to the challenges of the highs and lows of business cycles. The first major change came during the first three Five-Year Plans when in line with the economic order of the day, the iron and steel industry was earmarked for state control. From the mid-50s to the early 1970s, the Government of India set up large integrated steel plants in the public sector at Bhilai, Durgapur, Rourkela and Bokaro. The policy regime governing the industry during these years involved:

- **Capacity control measures:** Licensing of capacity, reservation of large-scale capacity creation for the public sector units.
- **A dual-pricing system:** Price and distribution control for the integrated, large-scale producers in both the private and public sectors, while the rest of the industry operated in a free market.
- Quantitative restrictions and high tariff barriers.
- **Railway freight equalization policy:** To ensure balanced regional industrial growth.
- Controls on imports of inputs, including technology, capital goods and restrictions on finances and exports.

3.1.1 The large-scale capacity creation in the public sector during these years contributed to making India the 10th largest steel producer in the world as crude steel production grew markedly to nearly 15 million tonne in the span of a decade from a mere 1 million tonne in 1947. But the trend could not be sustained from the late 1970's onwards, as the economic slowdown adversely affected the pace of growth of the Indian steel Industry. However, this phase was reversed in 1991-92, when the country replaced the control regime by liberalization and deregulation. The

provisions of the New Economic Policy initiated in the early 1990's impacted the Indian steel industry in the following ways:

- Large-scale capacities were removed from the list of industries reserved for the public sector. The licensing requirement for additional capacities was also withdrawn subject to locational restrictions.
- Private sector came to play a prominent role in the overall set-up.
- Pricing and distribution control mechanisms were discontinued.
- The iron and steel industry were included in the high priority list for foreign investment, implying automatic approval for foreign equity participation up to 50%, subject to the foreign exchange and other stipulations governing such investments in general.
- Freight equalization scheme was replaced by a system of freight ceiling.
- Quantitative import restrictions were largely removed. Export restrictions were withdrawn.

3.1.2 For steel makers, opening up of the economy allowed new channels of procuring their inputs at competitive rates from overseas markets and also new markets for their products. It also led to greater access to information on global operations/techniques in manufacturing. This, along with the pressures of a competitive global market, increased the need to enhance efficiency levels so as to become internationally competitive. The steel consumer, on the other hand, was now able to choose items from an array of goods, be it indigenously manufactured or imported. With the opening up of the economy in 1992, the country experienced rapid growth in steel making capacity. Large integrated steel plants were set up in the Private Sector by Essar Steel, Ispat Industries, Jindal Group etc. Tata Steel also expanded its capacity. Some of the notable milestones in the period included the following:

- Emergence of the private sector with the creation of around 9 million tonne of steel capacity based on state-of-the-art technology.
- Reduction/ dismantling of tariff barriers, partial float of the rupee on trade account, access to best-practice of global technologies and consequent reduction in costs – all these enhanced the international competitiveness of Indian steel in the world export market.

3.1.3 After 1996-97, with the steady decline in the domestic economy's growth rate, the Indian steel industry's pace of growth slowed down and in terms of all the performance indicators – capacity creation, production, consumption, exports and price/ profitability – the performance of the industry fell below average. In foreign trade, Indian steel was also subjected to anti-dumping/ safeguard duties as most developed economies invoked non-tariff barriers. Economic devastation caused by the Asian financial crisis, slowdown of the global economy and the impact of glut created by additional supplies from the newly steel-active countries (the steel-surplus economies of erstwhile USSR) were the factors that pulled down growth levels. However, from the year 2002, the global industry turned around, helped to a great extent by China, whose spectacular economic growth and rapidly-expanding infrastructure led to soaring demand for steel, which its domestic supply could not meet. At the same time, recoveries in major markets took place, reflected by increase in production, recovery of prices, return of profitability, emergence of new

markets, lifting of trade barriers and finally, rise in steel demand – globally. The situation was no different for the Indian steel industry, which by now had acquired a degree of maturity, with emphasis on intensive R&D activities, adoption of measures to increase domestic per capita steel consumption and other market development projects, import substitution measures, thrust on export promotion and exploring global avenues to fulfill input requirements. To develop a globally competitive steel industry by adopting environment friendly technologies, the Government has notified a Steel Scrap Recycling Policy during the Year 2019.

3.1.4 The rapid pace of growth of the industry and the observed market trends called for certain guidelines and framework. Thus, the concept of the National Steel Policy was evolved with aim to provide a roadmap of growth and development for the Indian steel industry. The National Steel Policy (NSP) was announced in November 2005 as a basic blueprint for the growth of a self-reliant and globally competitive steel sector. The long-term objective of the National Steel Policy 2005 was to ensure that India has a modern and efficient steel industry of world standards, catering to diversified steel demand. The focus of the policy was to attain levels of global competitiveness in terms of global benchmarks of efficiency and productivity. With passage of time and continued growth in the domestic steel industry, it was felt that the NSP 2005 needs to be in sync with changing times. Accordingly, after a detailed review, the Government has released the National Steel Policy 2017, which has laid down the broad roadmap for encouraging long term growth for the Indian steel industry, both on demand and supply sides, by 2030-31, with a vision to create a technologically advanced and globally competitive steel industry that promotes economic growth. At the same time, as a facilitator in the present-day de-regulated, liberalized economic/market scenario, the Government has also announced a policy viz. Domestically Manufactured Iron and Steel Product (DMI&SP) for providing preference to domestically manufactured iron and steel products in Government procurement. This policy seeks to accomplish Hon'ble Prime Minister's vision of 'Make in India' with the objective of nation building and to encourage domestic manufacturing and is applicable on all Government tenders.

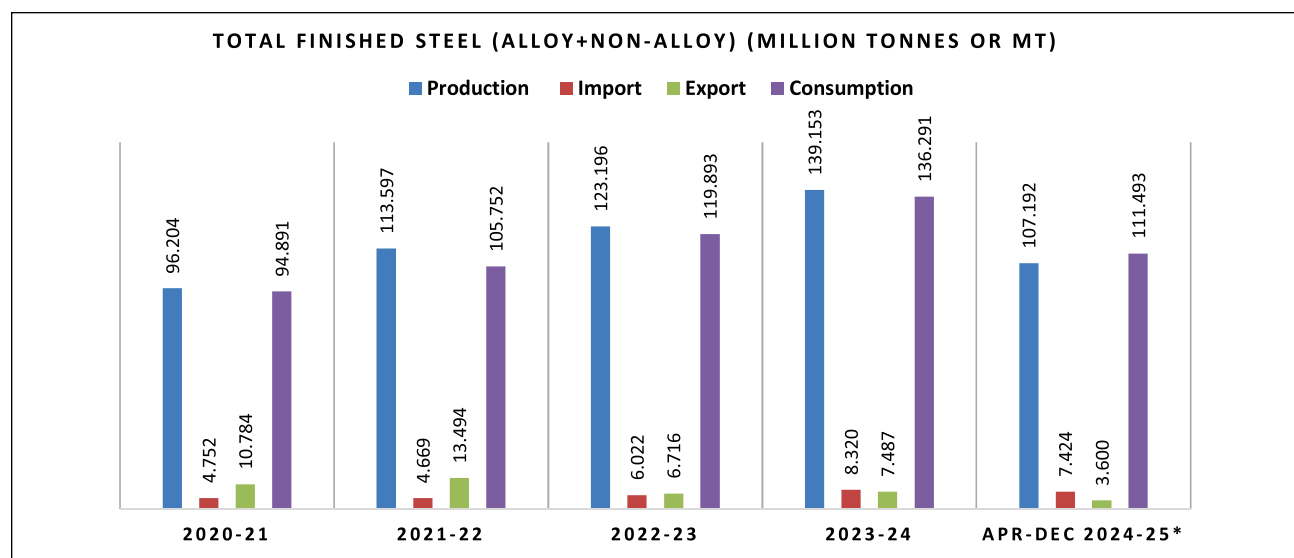
3.2 Production, Consumption and Growth of Steel

3.2.1 The table below shows the trend in production, import, export and consumption of total finished steel (alloy + non-alloy) in the country for the last five years and April-December 2024-25 (Provisional):

Total Finished Steel (alloy + non-alloy) (Million Tonnes or MT)

Year	Production	Import	Export	Consumption
2020-21	96.204	4.752	10.784	94.891
2021-22	113.597	4.669	13.494	105.752
2022-23	123.196	6.022	6.716	119.893
2023-24	139.153	8.320	7.487	136.291
Apr-Dec 2024-25*	107.192	7.424	3.600	111.493

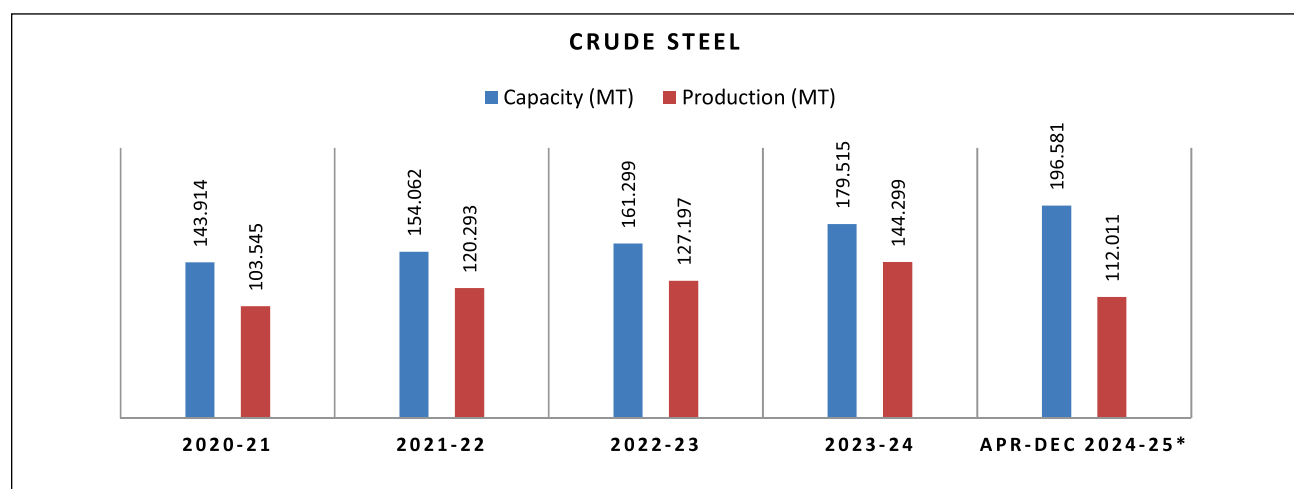
Source: JPC; *provisional



3.2.2 Data on crude steel production, capacity and capacity utilization from 2020-21 to April-December, 2024-25 (Provisional) is given in the table below:

Year	Crude steel		
	Capacity (MT)	Production (MT)	Capacity Utilization (%)
2020-21	143.914	103.545	72
2021-22	154.062	120.293	78
2022-23	161.299	127.197	79
2023-24	179.515	144.299	80
Apr-Dec 2024-25*	196.581@	112.011	57

Source: JPC; *provisional @whole Financial Year



- Crude Steel production grew from 103.545 MT in 2020-21 to 144.299 MT in 2023-24.
- Such growth in production was driven by capacity expansion, from 143.914 Million Tonnes (MT) in 2020-21 to 179.515 MT in 2023-24.

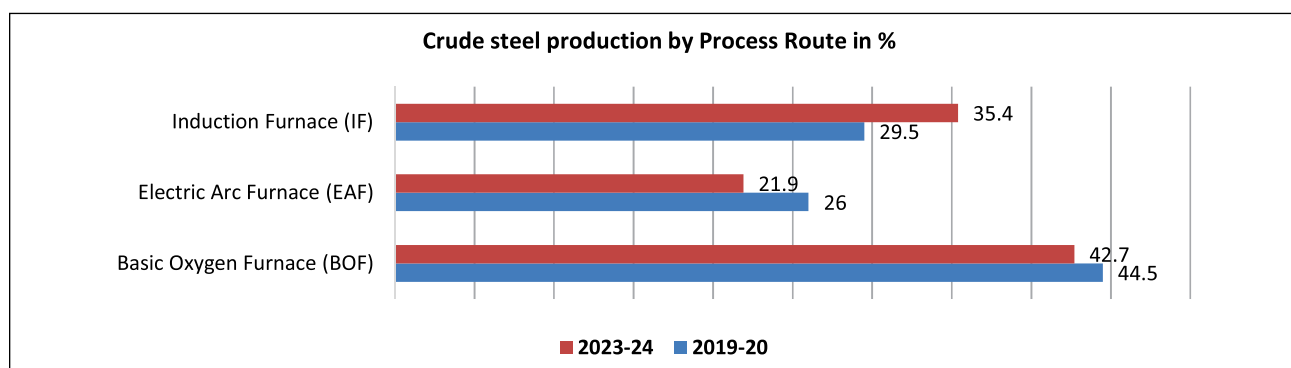
- Domestic consumption of Finished Steel (alloy + non-alloy) was at 136.291 MT in 2023-24 as against 94.891 MT in 2020-21.
- Export of Finished Steel (alloy + non-alloy) during 2023-24 stood at 7.487 MT as compared to 10.784 MT in 2020-21; import of Finished Steel (alloy + non-alloy) during the same year stood at 8.320 MT as compared to 4.752 MT in 2020-21.
- India was a net importer of Finished Steel in 2023-24.

3.2.3 The shares of the different process routes in total production of crude steel in the country during the terminal years of the last five-year span are shown in the table below:

Crude steel production by Process Route

Process Route	Percentage share (%)	
	2019-20	2023-24
Basic Oxygen Furnace (BOF)	44.5	42.7
Electric Arc Furnace (EAF)	26.0	21.9
Induction Furnace (IF)	29.5	35.4
Total	100.0	100.0

Source: JPC

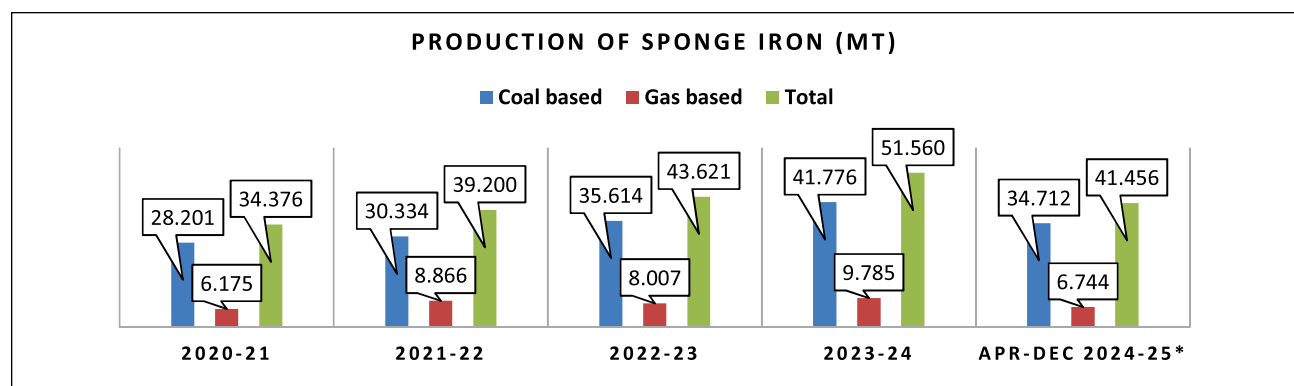


3.2.4 India is also a leading producer of Sponge Iron with a host of coal based units located in the mineral-rich states of the country. Over the years, the coal based route has emerged as a key contributor and accounted for 81% of total sponge iron production in the country in 2023-24. India has been the world's largest sponge iron producer every year since 2003. The table below shows the total production of sponge iron in the country, indicating the break-up of the share of coal and gas-based route of production from 2020-21 to April-December, 2024-25 (Provisonal):

Production of Sponge Iron (MT)

Year	2020-21	2021-22	2022-23	2023-24	Apr-Dec 2024-25*
Coal based	28.201	30.334	35.614	41.776	34.712
Gas based	6.175	8.866	8.007	9.785	6.744
Total	34.376	39.200	43.621	51.560	41.456

Source: JPC; *provisonal

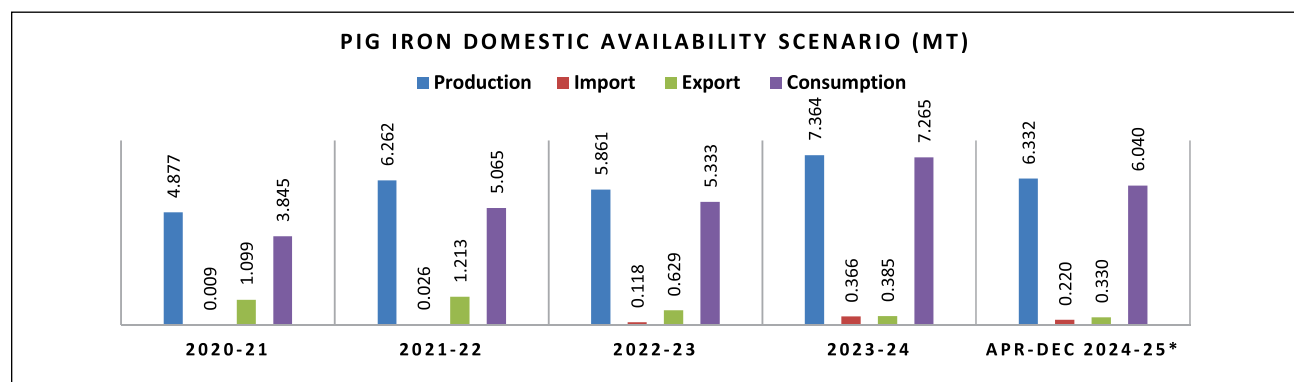


3.2.5 India is also an important producer of Pig Iron. With setting up of several units in the private sector during the period of post-liberalisation, imports have reduced and India has turned out to be a net exporter of Pig Iron. The private sector accounted for 90% of total production of Pig Iron in the country in 2023-24. The domestic availability situation of pig iron is given in the table below from 2020-21 to April-December, 2024-25 (Provisional):

Pig Iron Domestic Availability Scenario (MT)

Year	2020-21	2021-22	2022-23	2023-24	Apr-Dec 2024-25*
Production	4.877	6.262	5.861	7.364	6.332
Import	0.009	0.026	0.118	0.366	0.229
Export	1.099	1.213	0.629	0.385	0.193
Consumption	3.845	5.065	5.333	7.265	6.040

Source: JPC; *provisional



3.3 Global ranking of Indian steel

World's Crude Steel production stood at 1839.4 MT during January-December 2024, registering a 0.9% decline over 2023, based on provisional data released by the World Steel Association on January 24, 2025. During this period, Chinese Crude Steel production reached 1005.09 MT, registering a decline of 1.7% over the previous year. China remained the largest Crude Steel producer in the world, accounting for 55% of world's Crude Steel production during this period. India was the 2nd largest producer of Crude Steel.

The global scenario is as under:

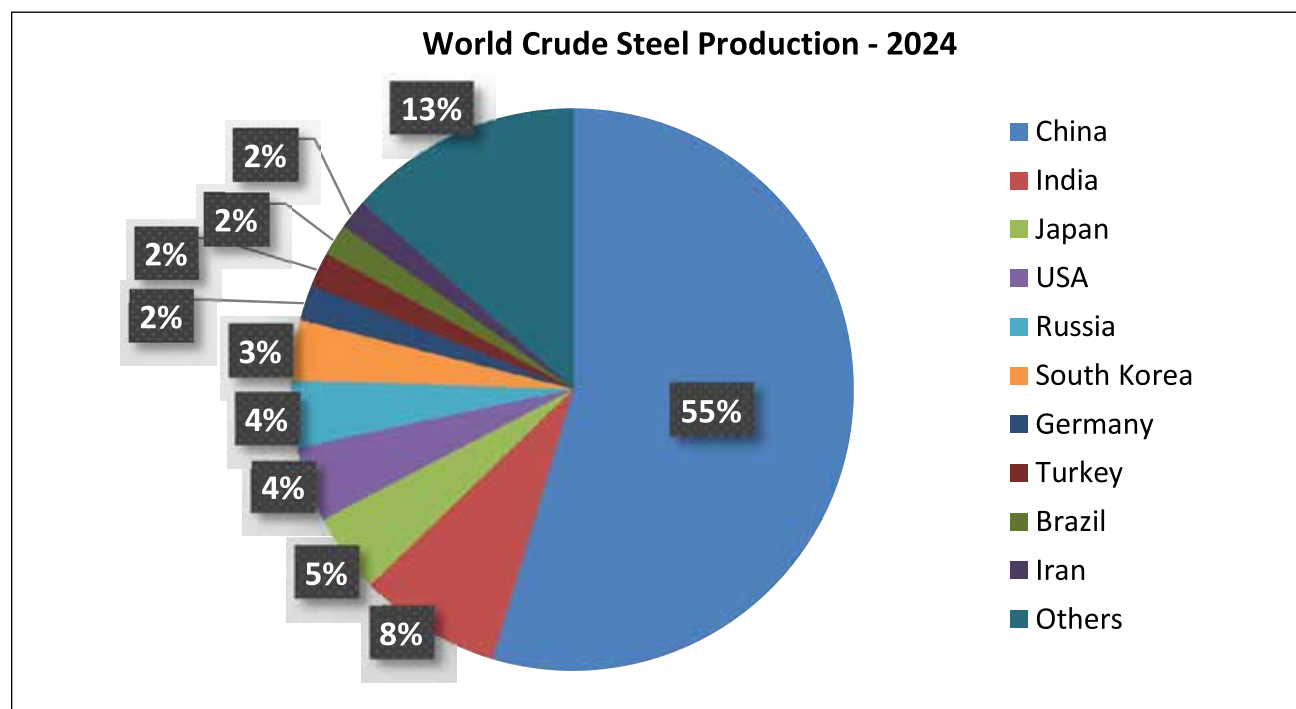
World Crude Steel Production

January-December 2024*

Rank	Country	Qty (MT)	% change over the same period of last year
1	China	1005.090	-1.7
2	India	149.587	6.3
3	Japan	84.009	-3.4
4	USA	79.452	-2.4
5	Russia	70.690	-7.0
6	South Korea	63.531	-4.7
7	Germany	37.234	5.2
8	Turkey	36.893	9.4
9	Brazil	33.741	5.3
10	Iran	30.952	0.8
	Top 10	1591.179	-0.9
	World	1839.449	-0.9

Source: World Steel Association release dated January 24, 2025;

*provisional;



3.4 Steel: Facts of Indian steel sector during the year 2023-24:

Indian steel scene: 2023-24

Finished Steel (alloy+non-alloy)	Qty (MT)	% change*
Production	139.153	13.0
Import	8.320	38.2
Export	7.487	11.5
Consumption	136.291	13.7
Crude steel		
Production	144.299	13.4
Capacity Utilization (%)	80	-

Source: JPC;

*over same period of last year

With several expansion projects at different stages of implementation, the future of the Indian steel industry is optimistic. The data pertaining to production, consumption, import, export etc. of steel sector are at **Annexure III-XI**.

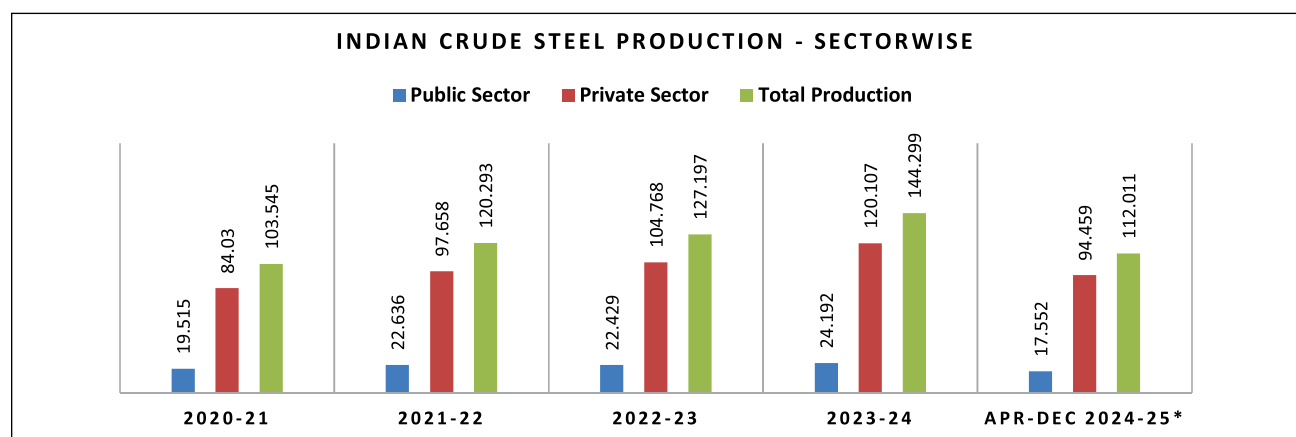
3.5 Trends in Production, Private/Public Sector

The following table highlights the contribution of the private and public sector in Crude Steel production in the country from 2020-21 to April-December, 2024-25 (Provisional):

Indian Crude Steel Production

Sector	Unit	2020-21	2021-22	2022-23	2023-24	Apr-Dec 2024-25*
Public Sector	MT	19.515	22.636	22.429	24.192	17.552
Private Sector	MT	84.030	97.658	104.768	120.107	94.459
Total Production	MT	103.545	120.293	127.197	144.299	112.011
Share of Public Sector	%	19	19	18	17	16

Source: JPC; *provisional



3.6 Annual Plan 2024-25

The Annual Plan 2024-25 of the Ministry on the basis of the Revised Estimates 2024-25 is to the tune of Rs.19236.41 crores. This includes Internal and Extra Budgetary Resources (IEBR) of Rs. 10746.41 crore and Gross Budgetary Support (GBS) of Rs. 8490 crore, as detailed in the table below:

Outlay for Annual Plan 2024-25

(Rs. in crore)

Sl. No.	Name of the CPSE/Organisation	IEBR	GBS	Total
A. Schemes of CPSEs				
1.	Steel Authority of India Ltd.	5700.00	0.00	5700.00
2.	Rashtriyaspat Nigam Ltd.	199.00	8423.00	8622.00
3.	NMDC Ltd.	4083.00	0.00	4083.00
4.	NMDC Steel Ltd.	337.00	0.00	337.00
5.	KIOCL Ltd.	40.00	0.00	40.00
6.	MOIL Ltd.	309.30	0.00	309.30
7.	MECON Ltd.	16.00	0.00	16.00
8.	MSTC Ltd.	35.00	0.00	35.00
9.	Ferro Scrap Nigam Ltd.	18.00	0.00	18.00
10.	SRCL	9.11	0.00	9.11
Total-A		10746.41	8423.00	19169.41
B. Scheme of Ministry of Steel				
11.	Schemes for promotion of R&D in Iron and Steel Sector	0.00	5.00	5.00
12.	Flagging of Merchant Ships in India	0.00	7.00	7.00
13.	Production Linked Incentive Scheme for Specialty Steel in India	0.00	55.00	55.00
Total-B		0.00	67.00	67.00
Grand Total: A+B		10746.41	8490.00	19236.41

3.7 Funds/Grants provided by Government of India to Statutory bodies / autonomous organization / societies / private / voluntary organization / public corporation/ JVs/ Organisations etc.

During the Financial Year 2024-25, Ministry of Steel has released a total amount of Rs. 269.58 lakhs (till Dec., 2024) to multiple organizations. This amount has been released under Ministry's R&D Scheme i.e. **'Scheme for Promotion of Research and Development in Iron and Steel Sector'**. The details of funds released during 2024-25 (till Dec., 2024) under the aforesaid scheme are at **Annexure-XV**.

STEEL POLICIES AND RECENT INITIATIVES

4.1 National Steel Policy (NSP) 2017

NSP 2017 aims to increase focus on expansion of MSME sector, improve raw material security, enhance R&D activities, reduce import dependency and cost of production, and thus develop a “technologically advanced and globally competitive steel industry that promotes economic growth” eyeing self-sufficiency in production, developing globally economical steel manufacturing capabilities by facilitating investments and cost-efficient productions with adequate availability of raw materials. With focus on R&D, the technology would be of utmost focus over the next decade and MSME steel plants would be the key drivers to achieve the additional capacity required for the India’s consumption led growth and improvement in the overall productivity and quality.

Expected impact/outcome of NSP 2017

The following targets have been set in the NSP 2017:

S.No.	Parameter	Projections (2030-31)
1	Total crude steel capacity (in MTPA)	300
2	Total crude steel demand/production (in MTPA)	255
3	Total finished steel demand/production (in MTPA)	230
4	Sponge iron demand/production (in MTPA)	80
5	Pig iron demand/production (in MTPA)	17
6	Per Capita Finished Steel Consumption (in KGS)	158

The other expected impacts are as under:

a) India to be world leader in energy efficiency and sustainability

Ministry of Steel, in association with suitable agency, will constantly monitor techno-economic performance of all the steel plants within the country vis-a-vis the global best practices. Transfer of technology for production of automotive steel and other special steels will be facilitated by helping set up JV’s with global leaders.

b) Source of Cost-effective and quality steel

151 Indian Standards for steel and steel products have already been notified under the mandatory quality certification mark scheme of BIS. Efforts will be made to bring in additional

steel products, which are used in critical end-use applications, under the mandatory scheme to ensure protection of human health, environment and safety.

c) Attain global standards in Industrial Safety and Health

The Ministry is coordinating with steel companies to ensure that on the job trainings on maintaining a safe workplace are provided to employees of the steel Companies.

d) Substantially reduce the Carbon footprint of the Industry

In order to address the environment related issues, the Ministry is facilitating the formation of a forum to chalk out best practices and is also focusing on development of a Waste Management Plan for the industry.

e) Domestically meet the entire demand of high-grade automotive steel, electrical steel, special steel and alloys.

Government is giving impetus on investment in infrastructure development and enhanced pace of project execution including various Government Schemes/ Programs such as PMAY, Urja Ganga, UDAAN, Sagarmala, Bharatmala, AMRUT, Jal Jeevan Mission, National Solar Mission, GatiShakti etc.

4.2 Policy for providing preference to Domestically Manufactured Iron and Steel Products (DMI&SP) Policy in Government Procurement

The Government had introduced DMI&SP Policy on 8th May, 2017 to provide preference to domestically produced iron and steel material in Government tenders. Further, to fine tune this objective the Policy was revised on 29th May, 2019 and on 31st December, 2020. The salient features of the Policy are as under:

- This policy provides preference to Domestically Manufactured Iron and Steel Products (DMI&SP) in Government procurement.
- The policy covers a list of 49 manufactured products of iron and steel. The policy also covers capital goods for manufacturing iron and steel products.
- While earlier the domestic content was specified as 15-50 per cent on the 49 products of iron and steel, the new list of 49 products have minimum prescribed value addition ranging between 20-50 per cent making it difficult for imported steel to compete with domestic bidders for Government contracts.
- Each Ministry or Department of Government and all agencies/entities under their administrative control is under the purview of the DMI&SP Policy as notified by the Ministry of Steel. All Central Sector Schemes (CS)/Centrally Sponsored Schemes (CSS) for which procurement is made by States and Local Bodies, would come within the purview of this Policy, if that project / scheme is fully / partly funded by Government of India.
- The policy shall be applicable to projects where the procurement value of iron and steel products is greater than Rs.5 lakhs. The policy shall also be applicable for other procurements (non-project), where annual procurement value of iron and steel products for

that Government organization is greater than Rs. 5 lakhs. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this policy.

- The policy is applicable to purchase of iron and steel products by private agencies for fulfilling an EPC contract and/or any other requirement of Ministry or Department of Government or their CPSEs and also to capital goods for manufacturing iron and steel products in compliance to prescribed quality standards, as applicable.
- No Global Tender Enquiry (GTE) shall be invited for tenders related to procurement of iron and steel products. No Global Tender Enquiry (GTE) shall be invited for tenders related to procurement of Capital Goods for manufacturing iron and steel products having estimated value upto Rs. 200 Crore except with the approval of competent authority as designated by Department of Expenditure.
- The policy has provisions for waivers to all such procurements, where specific grades of steel are not manufactured in the country, or the quantities as per the demand of the project cannot be met through domestic sources.

The policy is envisaged to promote growth and development of domestic steel Industry and reduce the inclination to use low quality and low cost (unfairly traded) imported steel in Government funded projects.

Impact of the DMI&SP Policy

The increased domestic value addition is expected to contribute to the vibrant steel sector and the associated industries by generating employment and domestic market for their products.

This policy has provided and expected to provide significant savings to the Indian Economy and restrict the use of low quality and cheap imported steel in Government funded projects, alongside developing domestic capability for import substitution. Since the implementation of DMI&SP Policy total Government procurement of steel by Central Government CPSEs has been in the tune of Rs. 52500/- crore (approx.).

4.3 Steel Import Monitoring System (SIMS) 2.0

Hon'ble Union Minister of Steel and Heavy Industries launched revamped Steel Import Monitoring System, SIMS 2.0 on 25.07.2024.

The Steel Import Monitoring System (SIMS), introduced in 2019, has played a crucial role in providing detailed steel import data to the domestic industry. Based on industry feedback, the Ministry has revamped the portal to develop a more effective SIMS 2.0, a significant step forward in monitoring steel imports and promoting the growth of the domestic steel industry. Availability of such detailed data not only provides input for policy making but also signals areas for production and growth to the domestic steel industry.

The Steel Import Monitoring System (SIMS) 2.0 features API integration with multiple Government portals, enhancing quality control and streamlining processes for improved efficiency and effectiveness. The portal boasts a robust data entry system, ensuring consistent and authentic

data, which promotes transparency and accountability. Integration of various databases would enable stakeholders to conduct better analysis and risk management of steel imports.

4.4 Enhancing the availability of Quality Steel to the end users

- Ministry of Steel has introduced Steel Quality Control Order thereby banning sub-standard/ defective steel products both from domestic & imports to ensure the availability of quality steel to the industry, users and public at large.
- As per the Order, it is ensured that only quality steel conforming to the relevant BIS standards are made available to the end users.
- As on date 151 Indian Standards have been notified under the Quality Control Order covering carbon steel, alloy steel and stainless steel. In addition, goods & articles made up of steel such as stainless steel pipe & tubes, laminations/ cores of transformers, products of tin plate & tin free steel etc. have also been notified to prevent circumvention of the Steel Quality Control Order. 21 additional Indian Standards have been proposed to be notified under the Quality Control Order.
- The functionality of the TC-QCO Portal was merged with the SIMS portal so that the applicability of the QCO can be verified through SIMS portal itself. This initiative promoted ease of doing business as importers need only to register and provide the desired inputs on a single portal only.
- To further promote ease of doing business, clarifications/NOCs are being issued based on the six monthly requirement of steel material by the importers. Earlier, clarifications/NOCs were required by the importers for the import quantities mentioned in each consignment.
- Ministry of Steel is also taking steps for formulation of Indian standards, for the steel consumed in the country, for which presently no Indian standards exists or revision of equivalent standards to incorporate the said steel grades, with the aim of expanding the ambit of the QCO. In this regard, a Standardisation Cell has been constituted by the Ministry in consultation with BIS. The Standardisation Cell comprise of members from the BIS, the Steel Industry and Associations. A list of the international steel grades to work on for developing new Indian Standards or incorporating in existing Indian Standards has also been identified for discussion in the meetings of the Standardisation Cell, which is being held on regular basis.

4.5 Key Initiatives

4.5.1 Scheme “Flagging of Merchant Ship in India”

In order to promote the objective of Atmanirbhar Bharat, the Government of India approved a scheme to provide Rs. 1624 Crore over five years as subsidy support to Indian shipping companies in global tenders floated by Ministries/Departments and CPSEs for import of Government cargo. The scheme was implemented w.e.f 14.07.2021. The expenditure(approx.) incurred by Ministry of Steel as subsidy support under this scheme to Steel CPSEs was Rs. 1.32 Crore in FY 2021-22, Rs. 3.24 Crore in FY 2022-23 and Rs. 5.14 Crore in FY 2023-24 and Rs. 4.89 Crore in FY 2024-25.

4.5.2 Taxonomy of Green Steel:

As a landmark step towards Green Transition of the Iron & Steel Sector, Ministry of Steel has released 'Taxonomy of Green Steel' on 12.12.2024. The Green Steel Taxonomy is a crucial step towards transforming India's steel industry into a more sustainable, low-carbon sector by defining a clear framework for promoting the adoption of green technologies in steel production. The taxonomy will serve as a foundational tool for the development of green steel market, driving investments in green technologies and thus enhancing India's role in the global industrial decarbonisation landscape.

4.5.3 PM GatiShakti National Master Plan

With the help of Bhaskaracharya Institute for Space Applications and Geoinformatics (BiSAG-N), the infrastructure Ministries have uploaded their rail, road, port networks, etc. on PM GatiShakti National Portal. Ministry of Steel has onboarded itself on PM GatiShakti Portal (National Master Plan portal) with the help of a mobile application created by BiSAG-N, by uploading the Geo locations of more than 2100 (Twenty one hundred) steel units (including big players) functioning in the country. The Geo location of all the Iron Ore Mines and Manganese Ore Mines has also been uploaded. Ministry of Steel is in the process of uploading the geo locations of the existing slurry pipelines and the laboratories functioning in the steel sector.

In addition, Ministry of Steel, in line with the goal of PM GatiShakti Master Plan, has identified 22 high impact projects to develop multimodal connectivity and bridge the missing infrastructure gaps. Planned expansion of railway lines, creation of new inland waterways, roads, ports, gas pipeline connectivity will result in creating much needed logistics solution which will drive the steel sector towards achieving its targeted goals by 2030-31, as delineated in NSP 2017.

Further, Ministry of Steel is in the process to formulate "Sectoral Plan for Efficient Logistics (SPEL)" which is a comprehensive, long term infrastructure plan as mandated by the Comprehensive Logistics Action Plan (CLAP) under the National Logistics Policy (NLP).

4.6 Other Initiatives:

4.6.1 Ensuring Raw Material Security for the steel sector

Raw material is a critical enabler for ensuring sustained growth in Iron & Steel Industry. The industry faces challenges both in the short and long term in terms of raw material security. Ministry of Steel has taken up related raw material issues with Ministry of Mines, Ministry of Coal, Ministry of Environment, Forest and Climate Change (MoEF&CC) alongwith Logistic Ministries and the concerned State Governments.

Iron ore

- As per National Steel Policy (NSP), 2017, Ministry of Steel has set up a target to achieve 300 MT Crude Steel Capacity with 255 MT crude steel productions by 2030-31 and for this there is a need of 437 MT of iron ore.
- The Production of iron ore in the country increased from 258 Million Tonne in 2022-23 to 275 Million Tonne in 2023-24. The iron ore production from April, 24 to September, 24 is 135.53 MT.

Coal

- The demand of coking coal required for steel sector is only partially met by the domestic production as the supply of high-quality coal/ coking coal (low-ash-coal) in the country is limited. Therefore, the Indian Steel Industry has been largely dependent on imported coking coal.
- Most of the coking coal produced domestically in the country had a very high ash content making it redundant in the manufacture of steel, which led to import of 51.20 MMT (Million Metric Tonne) in 2020-21, 57.16 MMT in 2021-22, 56.05 MMT in 2022-23 and 58.12 MMT in 2023-24 coking coal. Major portion of this import is from Australia.
- As coking coal is a major chunk of manufacturing cost in steel production, Ministry of Steel is making efforts to reduce the import bill of coking coal by diversifying the import destinations, maximize use of Pellets to reduce coke requirement, beneficiation of iron ore to increase iron content, coking coal blend optimisation etc.
- Further, an MoU was signed on 14.10.2021 between the Ministry of Steel, Government of India, and the Ministry of Energy, Russian Federation on Cooperation in coking coal used in steel making. The import of coking coal from Russia has been 1.506 MMT in FY 2021-22, 4.481 MMT in FY 2022-23 and 5.256 MMT in FY 2023-24 and is continuously increasing. This helps in diversifying the source of coking coal. In FY 2024-25 (till October'24), SAIL's total import of coking coal from Russia is approx. 545,000 MT(Metric tonne) while NMDC has imported about 78,520 MT.
- Additionally, a delegation visited Mongolia in September-October, 2024 to explore the possibilities and viabilities for import of coking coal for the Indian Steel Sector.
- Apart from the above, Ministry of Steel and Ministry of Coal has planned to reduce the burden of import bill of coal under the Mission Coking Coal by increasing domestic coal production from existing mines and setting up of new washeries. In order to enhance the availability of domestic coking coal to steel industries, steps have been taken which include allocation of coking coal block, auction of coking coal, MoU for coking coal linkage etc.

4.6.2 Digitization of Mines

Employing digitization is an important element for optimizing the iron ore mining throughout in the country. Across the world, digital technologies are being leveraged throughout the mining value chain to improve production efficiencies and quality. These technologies improve transparency in the mining industry and can potentially be a game changer in unlocking value for both mining and steel industry. For this, a detailed roadmap has been put in place to kick-start the digitization journey for the iron ore mining sector in the country. The project is being executed in 2 phases with involvement from key Central Public Sector Enterprises.

NMDC has already initiated the project for digitizing its Iron Ore Mines in Chhattisgarh. NMDC has implemented SAP Enterprise Resource Planning (ERP) solution, a move that will help integrate and consolidate all business process end-to-end thereby improving operational efficiency. NMDC has also implemented Fleet Management System which will automate the mining field operation process.

4.6.3 Steel Scrap Recycling Policy

Key Points emanating from the Steel Scrap Recycling Policy:

- Promoting R&D activities, improving capacity building for capital equipment indigenously and adoption of the state of the art technologies.
- Special status for eco parks that are to be set up for recycling and scrapping purposes and consider introducing targeted recycling-based tax incentives, both direct and indirect tax.
- The recycled/reusable materials to be sold in the market post collection and recycling to be done through a dedicated e-commerce platform, to bring transparency and provide fair opportunity.
- Hazardous waste to be routed through Government authorized e-commerce/auction portal to authorised recyclers, who have adequate capability of recycling.

MMRPL a 50:50 JV between MSTC and M/s Mahindra Accelo (Brand name Cero) is a pioneer in setting up authorized auto dismantling centres in India for scrapping of unfit ELVs in scientific and environmentally sound manner. 6 Vehicle Scrapping Centre/ Registered Vehicle Scrapping Facility (RVSF) set up by MMRPL are currently operational in Greater Noida, Chennai. Indore. Ahmedabad, Guwahati and Bengaluru. MMRPL has recycled 32133 vehicles equivalent to about 19,623 tonnes of ferrous scrap, saving 29502 tonnes of iron ore, 10826 tonnes of coal, and 1184 tonnes of Limestone till January, 2025.

4.6.4 CAPEX

The importance of capital expenditure in building steel infrastructure to spur high and sustainable growth in India cannot be over-emphasized. The Steel CPSEs are using their own Internal and Extra Budgetary Resources (IEBR) to meet their CAPEX requirements. CAPEX has been utilized to enhance production capacity, modernize old plant equipment, and for upgrading to environmentally friendly technologies. This CAPEX by Steel CPSEs has a multiplier effect and has provided a fillip to the Indian economy.

The Steel CPSEs achieved a CAPEX of Rs. 10,139.61 crore in FY 2023-24. The CAPEX target of Steel CPSEs for the FY 2024-25 is Rs. 10,746.41 crore, against which Steel CPSEs achieved a CAPEX of Rs. 7,346.18 crore till December, 2024. The CAPEX target of Steel CPSEs for the FY 2025-26 is Rs. 11,922.50 crores.

Besides encouraging and directing the Steel CPSEs to complete their CAPEX projects timely, the Ministry is also helping CPSEs to resolve their inter-ministerial issues for faster implementation of CAPEX projects.

4.6.5 Formulation of Safety Guidelines

For ensuring a safe working environment in the Indian Steel Sector, the Ministry of Steel has formulated 25 safety guidelines in the form of a book viz. "Safety Guidelines for the Iron and Steel Sector". These guidelines pertain to specific activities/ hazards faced by the Indian Steel Industry (both large and small). These guidelines have been uploaded in Ministry of Steel's website. The stakeholders from the Indian Steel Industry and its associations have been urged to adopt these

guidelines wholeheartedly, to ensure a safe working environment for the workforce. Ministry of Labour and Employment has been requested to facilitate mandatory adoption of the Safety Guidelines by the Iron and Steel Industry. Presently, these guidelines are under consideration of the Expert Committee set up by Ministry of Labour and Employment for framing standards under Section 18 of the Occupation Safety Health and Working Conditions (OSH and WC) Code 2020.

Subsequently, to move the initiative further, it was decided to formulate Process Based Safety Guidelines for the Iron & Steel Sector, based on the specific processes adopted by the sector. These Process Based Safety Guidelines were formulated by the Working Group/ Sub Group after extensive deliberations. These process based safety guidelines comprise of 16 guidelines, out of which 4 guidelines are on workplace safety and 12 guidelines are on specific iron & steel making processes. These guidelines in the form of volume 2 of the book viz. **"Safety Guidelines for the Iron & Steel Sector"** was formally launched by the Hon'ble Steel Minister on 25th July, 2024.

Ministry of Steel has also identified the need for enhancing the safety awareness of the employees and contractual workers of the steel companies through training and workshops. Regular review is undertaken on the progress made by the steel CPSEs. The steel CPSEs have been directed to cover 100% of the employees every year for imparting training on safety in order to enhance the safety awareness culture and practices in the steel plants.

4.6.6 GeM

The procurement of goods and services through GeM by Ministry of Steel and its CPSEs has increased over the year. Upto 31st December, 2024, the procurement through GeM has been ₹10238 crore as against the target of ₹14060 crore for the FY 2024-25, which is around 73% of the target.

4.6.7 MSME Payments

The status of pending payments to MSMEs by CPSEs of the Steel Ministry is being monitored on weekly basis to ensure that the same is credited timely and well within the 45 days time limit prescribed for such payments. In 83.25% instances, payments have been made within 30 days. During April, 2024 to December 2024, Steel's CPSEs have made a payment of ₹5358.54 crores to MSMEs.

4.6.8 Meetings of the Consultative Committee for the Ministry of Steel

A Meeting of the Consultative Committee for the Ministry of Steel was held at Parliament House Annexe, New Delhi on 12th December, 2024 on **"Green Steel transition in Indian Steel Sector"**. Discussions were held on challenges for decarbonization of the Steel Sector. The committee was informed that: -

- India's steel sector structure is significantly different from the one in other countries. Developed countries have a higher share of scrap in total steel production, pellet uptake is high, the grid is less carbon-intensive, and low-carbon fuels like natural gas are available at affordable prices. Conversely, India has a limited scrap availability and natural gas is significantly expensive.

- India has low-grade coal and iron ore, whose usage increases overall energy consumption and emissions.
- Iron & Steel Industry is one of the hard-to-abate sectors due to use of coal as a primary source of energy. Integrated Steel Plants (ISPs) rely on captive coal-based thermal power plants and using conventional BF/BOF route, which is cost-effective but has significantly higher emission intensity of power than cleaner grids in developed countries.
- Natural Gas is a transition fuel before switching over to Hydrogen through breakthrough technologies. However, there is poor availability and high cost of Natural Gas (NG) and accessibility of NG grid in all the States, where Steel Plants are in operation.
- Indian steel industry is constrained to use coal-based blast furnaces and rotary kilns for steel making due to lack of affordable alternatives.
- Challenges of using H₂ in Green Steel are as below:
 - Current prohibitive cost, tipping cost for steel industry is \$1.5/kg.
 - Ecosystem for production, transportation and storage.
 - Lack of commercial level technology for use of green hydrogen in steel making.

Ministry of Steel has already initiated a journey towards producing low-carbon steel in a sustainable manner, implementing streamlined efforts and strategies to facilitate the sector's transition. These initiatives aim to de-carbonize the steel industry by leveraging multiple technological and process-oriented solutions. Government of India has introduced several steps to encourage the adoption of clean technologies, renewable energy sources, and carbon-reduction strategies. Indian steelmakers are actively investing in pilot projects and forging partnership with global firms that employ cutting-edge technologies to accelerate the transition to green steel production.

Taking into consideration critical issues such as rising energy costs, stringent environmental regulations and need for technological innovation, the road ahead towards de-carbonization of steel sector is challenging, but it is also filled with opportunities. Government is focused to address these challenges by embracing innovation, creating conducive ecosystem and fostering collaboration across the industry, which will lead to the ultimate goal of steel sector's de-carbonization and this sector will continue to be a driving force for economic growth and global competitiveness.



Hon'ble Union Minister of Steel Shri H.D. Kumaraswamy chairing the Consultative Committee Meeting



Hon'ble Union Minister of Steel Shri H.D. Kumaraswamy chairing the Consultative Committee Meeting

4.6.9 Ministry of Steel hosted a **"Chintan Shivir"** in New Delhi on 29.10.2024. Shri Sandeep Poundrik Secretary, Ministry of Steel, said in his opening remarks that the emerging competitive global and domestic scenario makes it obligatory for Steel CPSEs to challenge the conventional way of working and explore to adopt fresh strategies in the conduct of the operations and business of their steel plants and mines. He urged to do away with the conservative approaches that limit the potential returns / outcomes, which need to be changed for enhanced benefits.

Secretary, Steel also stressed that Steel CPSEs should adopt fresh strategies for project management by cutting down the time from conception to finalization of the contract and subsequent execution for timely completion of the projects. Presentations on new Initiatives and Energy Saving measures in Blast Furnace were well appreciated during the Chintan Shivir.

During deliberations, importance of overseas presence of Steel CPSEs was outlined. It was felt that AI/ML can be used in diverse field to ensure process optimization, not only in productions, but also in the field of managing & evaluating assets, Safety, Quality predictions of raw materials, data analysis, health Sector, environmental impacts, and HR Management, etc.



Chintan Shivir on 29.10.2024

PUBLIC SECTOR

5.1 Introduction

The performance of the CPSEs under the Ministry of Steel in the last five years are at **Annexure-XII and Annexure-XII (A)**. The contribution to Central and State Government exchequer by way of GST, dividend etc. are at **Annexure-XIII and XIII (A)**.

There are 08(eight) Central Public Sector Enterprises (CPSEs) under the administrative control of the Ministry of Steel. Detailed overview of the CPSEs is as under:

5.2 Steel Authority of India Ltd. (SAIL)

Steel Authority of India Limited (SAIL) is a company registered under the Companies Act, and is a “Maharatna” Central Public Sector Enterprise (CPSE). It has five integrated steel plants at Bhilai (Chhattisgarh), Rourkela (Odisha), Durgapur (West Bengal), Bokaro (Jharkhand) and Burnpur (West Bengal). SAIL has three special and alloy steel plants viz. Alloy Steels Plant at Durgapur (West Bengal), Salem Steel Plant at Salem (Tamil Nadu) and Visvesvaraya Iron and Steel Plant at Bhadravati (Karnataka). SAIL has also several Units viz. Research and Development Centre for Iron and Steel (RDCIS), Centre for Engineering and Technology (CET), Management Training Institute (MTI) and SAIL Safety Organisation (SSO) all located at Ranchi, Central Coal Supply Organisation (CCSO) located at Dhanbad, Environment Management Division (EMD), Logistics and Infrastructure Department and Growth Division (GD) all located at Kolkata and SAIL Refractory Unit with headquarters at Bokaro. Chandrapur Ferro Alloy Plant, (CFP) is located at Maharashtra. The Central Marketing Organisation (CMO), with its headquarters at Kolkata, coordinates the countrywide marketing and distribution network of the Company. SAIL has 15 operating iron ore mines, 3 flux mines and 4 coal mines, located in the States of Jharkhand, Odisha, Chhattisgarh, West Bengal and Madhya Pradesh.



Glimpse of Rail Mill, Bhilai Steel Plant

5.2.1 Capital Structure

The Authorized Capital of SAIL is Rs.5,000 crore. The paid up capital of the Company is Rs.4,130.53 crore as on 31.12.2024, out of which 65% is held by the Government of India and the balance 35% by the Financial Institutions, GDR holders, Banks, Employees, Individuals, etc.

5.2.2 Financial Performance

The company recorded turnover of Rs. 72,595 crore during April-December, 2024 and Rs.76,801 crore during CPLY. The Profit After Tax was Rs.970 Crore during April-December, 2024 and Rs.1,722 crore during CPLY.

5.2.3 Production Performance

(in Million Tonne)

SAIL	2022-23	2023-24	2024-25 (upto Dec., 2024)
Hot Metal	19.409	20.496	14.977
Crude Steel	18.291	19.240	14.084
Saleable Steel	17.246	18.437	13.218

5.2.4 Raw Material

During the nine months (April, 2024 to December, 2024) of FY 2024-25, SAIL fulfilled its entire iron ore demand for its Steel Plants by generating 24.49 Million Tonnes (MT) of iron ore from its captive mines. Additionally, the production of fluxes (Limestone and Dolomite) from captive mines during the nine months of the FY 2024-25 amounted to 1.26 MT. Furthermore, during nine months of the FY 2024-25, SAIL's captive collieries produced 0.43 MT of raw coking coal and 0.67 MT of raw non-coking coal, including middling & Jhama.

5.2.5 Washery's Performance

During the nine months (April, 2024 to December, 2024) of FY 2024-25, SAIL's washery at Chasnalla, processed a combined quantity of 0.92 MT of raw coking coal sourced from SAIL's coal mines and procured from CIL sources. From this raw coal processing, an output of 0.28 MT of clean coal was generated.

5.2.6 Sale of Iron Ore Fines/Dump Fines/Tailings/Lump

During the nine months (April, 2024 to December, 2024) of FY 2024-25, the sales volume of Iron Ore Fines/Dump Fines/Tailings/Lump from SAIL mines was 0.56 MT.

Highlights of achievement:

- On August 16, 2024, SAIL submitted two applications under the Green Credit Program (GCP) of MoEF&CC for 15 hectares in Block 1645 (Bastar) and 25 hectares in Block 1765 (Baloda Bazar) in Chhattisgarh. Currently, a total of three active applications covering 50 hectares of plantation blocks in Chhattisgarh are under process.

- An MDO agreement for the development of 7 MTPA iron ore mines at Taldih Iron Ore Mines was signed with the L1 bidder on November 20, 2024.
- SAIL is in the process of setting of a 3.5 MTPA Coal Washery at FCIL (Fertiliser Corporation of India) land for which Environmental Clearance was granted by the MoEFCC on 14.11.2024.

5.2.7 Manpower

The Manpower strength of SAIL as on 31.12.2024 was 53,907 (Executive 10,654 and Non-Executive 43,253).

5.2.8 Capacity Expansion and Modernization Projects

Steel Authority of India Ltd. (SAIL) had undertaken Modernisation and Expansion Plan (MEP) of its Integrated Steel Plants at Bhilai, Bokaro, Rourkela, Durgapur, Burnpur and Special Steel Plant at Salem. The MEP at Bhilai, Rourkela, Burnpur, Durgapur, Bokaro and Salem Steel Plants has been completed.

In line with National Steel Policy, 2017 of Government of India, SAIL has envisaged Phase-1 Expansion of its Integrated Steel Plants at Burnpur, Durgapur, Bokaro, Rourkela and Bhilai for enhancing the Crude Steel Capacity of SAIL from existing ~19 MTPA to around ~35 MTPA through augmentation and Expansion by 2030-31. Stage-I approval for greenfield expansion of IISCO Steel Plant and brownfield expansion of Durgapur Steel plant and Bokaro Steel plant, has been accorded by SAIL Board.

Addition, Modification, Replacement (AMR) Projects

Apart from Modernisation and Expansion Projects, SAIL undertakes Capital Investments from time to time under AMR schemes. Major highlights of the large projects (costing >Rs.50 Crore) initiated during 2024-25, are as follows:

- Replacement of Hot Leveller-1 of Plate Mill at BSP.
- Upgradation of ESPs in Sinter plant-2 at DSP.
- Installation of New Bar Mill at DSP.
- Up-gradation of Blast Furnace No. 3 at DSP.
- Relining of Stoves of Blast Furnace No. 3 at DSP.
- Revamping of Air Pollution Control System of Sinter Plant-1 at DSP.
- Installation of new stamp charge coke oven batteries at RSP and ISP.
- Installation of Micro Pellet Plant on Construct, Operate and Maintain (COM) Basis at RSP.
- Installation of Equipment of RMHP (Twin Boom Stackers, Bucket Wheel Reclaimer and Barrel Shell Reclaimer) at BSL.
- Installation of Stove-4 of BF-5 at RSP.
- High Pressure Water Mist Spray Firefighting and Fire Detection Alarm (FDA) system for Category-1 Cable Tunnels at BSL.

- Installation of Third Ladle Furnace in Secondary Refining Unit at ISP.
- Installation of 1.0 Mtpa output upstream Slime Beneficiation Plant on BOO basis at Dalli Mines, Bhilai Steel Plant.
- Engagement of Mine Developer cum Operator for development & operation of mines at Taldih (7.0 Mtpa ROM feed) along with installation of 10 Mtpa loading facility at Barsua Valley.
- Installation of 4th BF Stove at ISP, Burnpur.

There are many more AMR projects, initiated during 2024-25.

5.3 Rashtriya Ispat Nigam Ltd. (RINL)

Rashtriya Ispat Nigam Limited, a Navratna CPSE, is an integrated steel plant at Visakhapatnam, Andhra Pradesh, registered under the Companies Act, 1956 and has its registered office at Visakhapatnam.

RINL has one integrated steel plant of 7.3 Mtpa Liquid Steel capacity at Visakhapatnam, Andhra Pradesh. In addition, the company operates three mines viz. Jaggyapeta Mines (Limestone), Garbham (Manganese) Mines, in Andhra Pradesh and Madharam Mines (Dolomite) in Telangana State. RINL also has mines for quartzite and river sand at Kintada in Andhra Pradesh. RINL is marketing its products through a wide marketing network of 4 Regional offices, 20 Branch Sales Offices and 20 Stock yards which cater to the delivery requirements across the country.



Fine condensation Plant Area Primary Gas Cooler & Electrostatic Tar Precipitator

RINL has one subsidiary, Eastern Investment Limited (EIL) with 51% shareholding, which, in turn, has 2 subsidiaries, M/s The Orissa Mineral Development Company Ltd (OMDC) and M/s The Bisra Stone lime Company Ltd (BSLC). These three companies became Public Sector Undertakings with effect from 19.03.2010 and headquarter of these companies are at Bhubaneswar (Odisha). The Company is also partner in Joint Venture company International Coal Ventures Private Limited.

5.3.1 Capital Structure

RINL is a wholly owned Government Company under the administrative control of Ministry of Steel. The authorized share capital of the company is Rs.15,000 Crore and issued/subscribed/fully paid up shares is Rs.5389.85 crore as on 31.12.2024.

5.3.2 Financial Performance

The Company could not operate the plant to full potential due to financial crisis and liquidity constraints. As a result, the Sales Turnover was Rs. 12,429 crore (Est.) and the company incurred a Net Loss of Rs.3943.43 Crore (Est.) during FY2024-25 upto December, 24.

5.3.3 Production Performance

(Unit: '000 tonne)

Production ('000 t)	2022-23	2023-24	2024-25 (upto Dec,2024)
Hot Metal	4407	4701	2678
Crude Steel	4137	4411	2455
Saleable Steel	3960	4213	2373

However, with the support from Government of India, the Company could restart second Blast Furnace on 28/10/2024 and ramp up production to an average of an average of 13,485 t/day (i.e. 98% rated capacity for 2 BF's operation).

5.3.4 Raw materials

RINL does not have captive mines for major raw materials; iron ore and coking coal. Company has been procuring Iron ore mainly from NMDC and partly from auctions / tenders. Coking Coal is mainly sourced from global suppliers.

5.3.5 Manpower

The manpower Strength of RINL as on 31.12.2024 was 12,338 Employees (Executives-3,925 and Non-Executives-8,413).

5.3.6 Major Achievements/Initiatives:

Operations:

- The second Blast Furnace was re-started on 28th October, 24 entirely through in-house efforts ahead of schedule and surpassed rated capacity in December, 24.
- Ramp up of production reached an average of 13,485 t/day (i.e. 98% rated capacity for 2 BF's operation) against the plan of 13,000 t/day. BF-2 achieved a daily peak of 8002 tonnes (i.e. 117% of rated capacity) on 30th December, 24.
- LD Converter lining life of 10,891 heats was achieved in Converter-D in April, 24.
- Continuous reduction in usage of Hard Coking Coal in the Coal Blend to 53.4% in the period April-December, 2024 from 57.5% in 2023-24 and 63.8% in 2022-23.

Projects:

- Commissioning of Nitrogen Pressure Reducing Station (PRS) in June, 24, facilitated higher usage of Pulverized Coal Injection (PCI) in Blast Furnaces.

GeM Procurement:

- 689 contracts with a value of Rs.524 Crore were placed through GeM portal during April-December, 24.
- RINL is ranked 2nd for GeM Procurement under Ministry of Steel.

Others:

- Introduced Online Medical Reimbursement Data Management System to enhance transparency and effectiveness of medical bills processing.

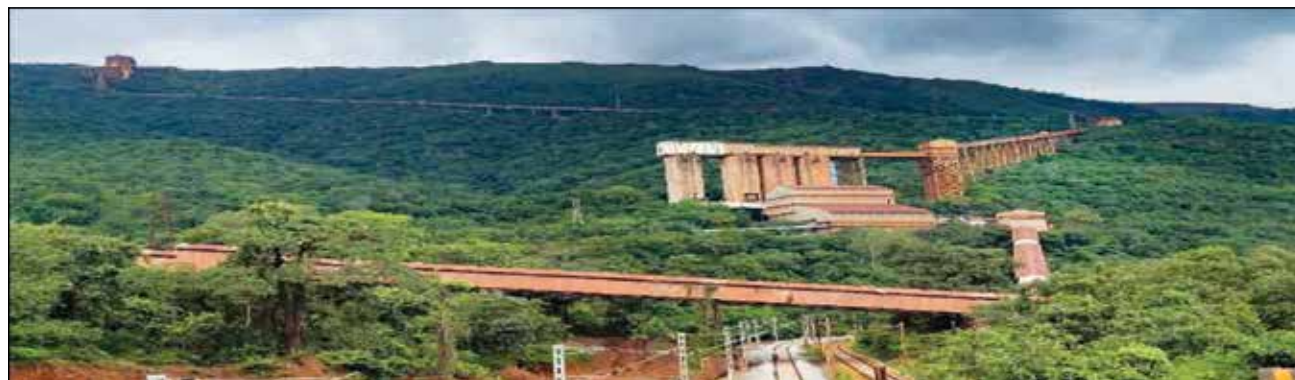
Awards:

- RINL received prestigious CII-GBC **National Energy Leader Award** for the Sixth Consecutive Year by the Bureau of Energy Efficiency, Ministry of Power.
- RINL received prestigious **"Gold Award"** at the AP State Energy Conservation Award-2024 competitions for its significant initiatives towards Energy Conservation in Iron & Steel category.
- RINL won 3 prestigious **'Gold Awards'** at the International Convention on Quality Control Circles (ICQCC-2024) held at Colombo, Sri Lanka.

5.4 NMDC Ltd.

NMDC Limited is a Government of India Enterprise under the administrative control of the Ministry of Steel. The Company was established in November, 1958 and was accorded the 'Navratna' status in January, 2008. The Company has iron ore mines in the States of Chhattisgarh and Karnataka.

NMDC Limited also has a Diamond Mine at Panna in Madhya Pradesh and a Sponge Iron Plant at Paloncha in Telangana, Pellet Plant at Donimalai in Karnataka. Since its inception, NMDC has been involved in exploring iron ore & other minerals i.e. copper, rock phosphate, limestone, magnesite, diamond, tungsten and beach sands in some of the country's most remote corners. NMDC has its Corporate Office in Hyderabad.



Donimalai Mines

5.4.1 Capital Structure

As on 31st December, 2024, the authorized Capital of the company was Rs.1000 crore and the paid-up capital was Rs.879.18 crores. The Government of India presently holds 60.79% shareholding in the company.

5.4.2 Financial Performance

The Company recorded turnover of Rs. 16,715 crore in the financial year 2024-25 (upto December, 2024). The post-tax net profit for the period was Rs.5,196 crore.

5.4.3 Production Performance

The details of the actual production for last three financial years are given below:

Items	2021-22	2022-23	2023-24
Iron Ore (in MT)	42.19	45.02	30.80

5.4.4 Manpower

The manpower strength of NMDC as on 31.12.2024 was 5701.

5.4.5 Major Expansions / Initiatives:

A. The details of Ongoing projects:

a. Screening Plant-III at Kirandul

- i. **Major Facilities:** Primary Screening (6W+2S lines), Secondary Screening (10W + 2S lines), Tertiary Crushing (3W+1S lines), Wet Screening with 06 Classifier lines & Stacking & loading facilities.
- ii. Capex Target for FY 2024-25 : ₹ 400 Crore
- iii. Capex achieved till 31.12.2024: ₹ 276 Crore
- iv. Physical Progress till 31.12.2024: 67%
- v. **Achievement:** Rapid Wagon Loading System (RWLS) has been commissioned in June, 2024.



Panaroma view of Kirandul

b. Slurry Pipeline Project

- i. **Major Facilities:** 2.0 MTPA Ore Processing Plant at Bacheli, with a provision of additional 4 MTPA Grinding facility, 15.0 MTPA Slurry Pipeline Bacheli to Nagarnar (22" dia./135 km), 2.0 MTPA Pellet Plant at Nagarnar (with a provision to expand to 6 MTPA) and Associated feed water & electrical power supply systems.
- ii. Capex Target for FY 2024-25 : ₹ 874 Crore
- iii. Capex achieved till 31.12.2024: ₹ 417 Crore
- iv. Physical Progress till 31.12.2024: 64%

c. Screening Plant-II at Donimalai

- i. **Major Facilities:** Primary Screening (3W+1S lines), Secondary Screening (3W + 1S lines), Tertiary Crushing (1W+1S lines), Wet Screening with 04 Classifier lines.
- ii. Package awarded on 29.05.2024.
- iii. Capex Target for FY 2024-25 : ₹ 125 Crore
- iv. Capex achieved till 31.12.2024: ₹ 87 Crore
- v. Physical Progress till 31.12.2024: 7%

d. Doubling of KK Line

- i. The project is divided into 3 sections:
 - Jagdalpur- Silakjhor - 45.50 km- commissioned in June, 2017
 - Kirandul- Gidam – 52.23 km – 69% work completed and expected completion by July 2025.
 - Silakjhor- Gidam – 52.73 km - commissioned in September, 2022.
- ii. Overall Physical Progress: 89%.
- iii. Fund deposited by NMDC till 31.12.2024: ₹ 1500 Crore
- iv. Expenditure incurred by Railways: ₹ 1460 Crore

e. Township Project at Kirandul

- i. **Major Facilities:** Type-III- 200 Units (5 Towers), Type-IV- 144 Units (3 Towers), Type-V- 21 Units (1 Tower) & Cafeteria- 1 Unit
- ii. Capex Target for FY 2024-25 : ₹ 120 Crore
- iii. Capex achieved till 31.12.2024: ₹ 113 Crore
- iv. Physical Progress till 31.12.2024: 59%
- v. **Achievement:** 2 Type-III Towers, Tower – 3A & 3E



Inauguration of Tower 3A & 3E By Secretary Steel, Ministry of Steel

B. The details of New Works

- a. **New Crushing Plant & Downhill Conveyor System at Dep-14 & 11C, Kirandul:**
The package is in final stage of awarding. (Linked to Statutory Clearances)
- b. **Township at Donimalai:** The package is in final stage of awarding. (Linked to VADA Clearance)

5.5 NMDC Steel Ltd. (NSL)

Pursuant to the Scheme of Demerger between NMDC Limited and NMDC Steel Limited, the Nagarnar Iron & Steel Plant (NISP) of NMDC Limited got demerged from NMDC Limited and formed part of NMDC Steel Limited (NSL) with the effective date of demerger being 13-10-2022.



Top View of Steel Plant

5.5.1 Capital Structure

The Authorized share capital of the company is Rs.3000 Crore. The paid-up equity share capital is Rs.2930.61 crore as on 31.12.2024, out of which 60.79% is held by the Government of India and the balance 39.21% by the mutual funds/financial institutions/banks / other public shareholders.

5.5.2 Financial Performance

- Sales Turnover of Rs. 5665 crore during FY'25 till December, 24 has been achieved as against Rs.1230.26 crore during previous year till December, 23. Projected during January, 25-March, 25 is Rs. 2474 Crore.
- Profit Before Tax (PBT) of Rs. (-2657crore during FY'25 till December, 24 has been achieved as against PBT of Rs. (-927.92) crore during previous year till December, 23. Projected during January, 25-March, 25 is Rs. (-382) Crore.
- Profit After Tax (PAT) of Rs. (-1900) crore during FY'25 till December, 24 has been achieved as against Rs.(-699.49) crore during previous year till December, 23. Projected during Jan.- March, 25 is Rs. (-274) Crore.
- Net worth of the company was Rs.13588 crore as on 31.12.2024 as against Rs.16349 crore as on 31.12.2023.

5.5.3 Production Performance

The details of the actual production are given below:

(In lakh tonnes)

Items	2022-23	2023-24	2024-25 (upto Dec.'24)
Hot Metal	-	9.66	14.30
Liquid Steel	-	5.18	10.47
Crude Steel	-	5.02	10.18
HR Coil	-	4.93	9.95
Pig Iron	-	3.08	3.20

*Date of Commencement of Commercial Operations declared on 31.08.2023

5.5.4 Capacity Expansion

- 1st coil rolled successfully on 24.08.2023.
- Date of Commencement of Commercial Operation declared on 31.08.2023.
- Hon'ble Prime Minister of India dedicated the steel plant to the nation on 03.10.2023.
- Plant is under ramp-up and stabilization.

Solar Projects of NSL

Solar Power Project - As per Government directives, NSL has initiated proposal for preparation of prefeasibility report for Floating Solar Plant and Roof Top Solar Plant of Capacity around 20MW in collaboration with Solar Energy Corporation of India (SECI).



Hon'ble Steel Minister visit to NSL



Secretary (Steel) visit to NSL

Township Projects of NSL

- NMDC has constructed a residential township comprising 1992 quarters along with CISF barracks consisting of 344 quarters.
- 60 units are under construction stage. Sewage Treatment Plant, Solid waste management consisting of Garbage composting machine, Rain water harvesting system are fully functioning.

5.5.5 Manpower

The manpower strength of NMDC Steel Limited (NSL) as on 31.12.2024 is 2451.

5.6 MOIL Ltd.

MOIL is a Schedule-A Mini Ratna Category-I CPSE. MOIL is the largest producer of manganese ore in the country with share of around ~ 53% in domestic production. At present, MOIL operates ten mines, six located in the Nagpur and Bhandara districts of Maharashtra and four in the Balaghat district of Madhya Pradesh. The mines of MOIL are about a century old. Seven mines are worked through underground method and rest three mines are worked through opencast method. The Balaghat Mine is the largest mine of the Company. MOIL has set up a plant based on indigenous technology to manufacture 1500 MTPA capacity of electrolytic manganese dioxide (EMD). This product is used mainly for the manufacture of dry battery cells. EMD produced by MOIL is of good quality and is well accepted by the market. A ferro manganese plant having present capacity of 12,000 MTPA is set-up by MOIL for value addition. In order to promote non-conventional energy resources, MOIL has installed 4.8 MW Wind Energy Farm at Nagda Hills and 15.2 MW Wind Farm at Ratedi Hills, Dist. Dewas in Madhya Pradesh. Also, set up 5.00 MW solar plant at Maharashtra and 5.5MW solar plant at Madhya Pradesh.

MOIL is having total 1940.725 Ha. leased area as on 31.12.2024 in Maharashtra and Madhya Pradesh. Apart from this, Government of Maharashtra has granted four prospecting licences comprising of 212.931 Ha. where exploration in two areas by core drilling has been completed, out of which feasibility of ore resources established in Chikla area. Accordingly, MOIL has applied for mining lease over an area of 77.633 Ha. in village Chikla, Tahsil Tumsar, Distt. Bhandara. Government of Madhya Pradesh has granted prospecting licence over an area of 202.501 Ha. In village Tawejhari and Manjhara of Balaghat for exploitation of manganese ore, core drilling has been completed and established of ore resources in the area. Accordingly, MOIL has applied for mining lease over an area of 202.501 Ha. in said area.



Winding drum installed in MOIL's Mine

MOIL has entered into an MoU with Gujarat Mineral Development Corporation Limited (GMDC), a Gujarat State enterprise, in October, 2019 to explore the possibility of mining of manganese ore in the State of Gujarat. For detailed exploration and analysis, MOIL has also entered into MoU with Mineral Exploration Corporation Limited (MECL), a CPSE under administrative control of Ministry of Mines. Exploration by core drilling has already been completed and results indicate availability of good grade of manganese ore and quantum of about 9.51 Million Tonne. After completion of the exploration work, a Techno Economic Feasibility Report (TEFR) has been prepared which indicates that the project is technically and economically viable. Approval from Ministry of Steel, NITI Ayog and DIPAM have been obtained and draft JV agreement has been prepared and shared with GMDC.



Working underground MOIL's Mine

Similarly, MOIL has also signed MOU with Chhattisgarh Mineral Development Corporation Limited to explore the possibilities of mining of manganese and associated minerals in the State of Chhattisgarh, and Balrampur district was identified for initial exploration. MOIL has commenced exploration activities in June, 2024. Exploration is under process.



Underground loaded tub, Munsar Mine

MOIL has also signed tripartite MOU with Government of Madhya Pradesh and Madhya Pradesh Mineral Development Corporation Limited (MPMDC) to explore the possibilities of exploration and exploitation of manganese ore in four districts i.e. Balaghat, Jabalpur, Jhabua and Chhindwara on 27.10.2016. Government of Madhya Pradesh has reserved 487 Km² and 850 Km² areas in Chhindwara and Balaghat districts respectively vide gazette notification dated 22.06.2021 under sub Rule (1) of Rule 67 of the Mineral (Other than Atomic and Hydrocarbon Energy) Mineral Concession Rule 2016 to carry out exploration work. MOIL has completed exploratory core drilling of 16360 meter in Chhindwara district and 55188 meter in Balaghat district. As some blocks seem to be potential for manganese mining, a draft Joint Venture in this regard has been signed between MOIL Limited and Madhya Pradesh State Mining Corporation Limited on 18.10.2024 at Madhya Pradesh Mining Conclave in the presence of honorable Chief Minister of the State.

5.6.1 Capital Structure

The authorized and paid-up share capital of the Company is Rs. 300.00 crore and Rs. 203.48 crore respectively, as on 31st December, 2024. MOIL got listed on 15th December, 2010 on National Stock Exchange and Bombay Stock Exchange. Current shareholding of Government of India, Government of Madhya Pradesh and Government of Maharashtra is 53.35%, 5.38% and 5.96% respectively and rest 35.31% is held by the public.

5.6.2 Financial Performance

(Rs. in crore)

Parameter	2021-22	2022-23	2023-24	[2024-25 upto Dec., 2024] (Actual)
Total Income	1515.57	1418.52	1542.96	1232.47
Profit Before Tax	523.29	334.45	387.00	350.66
Profit After Tax	376.98	250.59	293.34	262.40

5.6.3 Production Performance

Parameter	2021-22	2022-23	2023-24	[2024-25 upto Dec., 2024] (Actual)
Manganese Ore (Lakh Metric Tonne)	12.31	13.02	17.56	13.30
E.M.D. (Metric Tonne)	1202	1100	1413	1007
Ferro Manganese (Metric Tonne)	10245	8660	10163	9058

5.6.4 Manpower

The manpower strength of MOIL as on 31.12.2024 is 5330.

5.7 MECON Ltd.

MECON Limited, a Miniratna CPSE under Ministry of Steel, is one of the leading multi-disciplinary Design, Engineering, Consultancy and Contracting organization in the field of Metals and Mining, Energy (Power, Oil & Gas), Infrastructure, Environmental Engineering and other related/ diversified areas with extensive overseas experience. MECON provides entire gamut of services required for setting up of Greenfield and Brownfield projects from Concept to Commissioning including Turnkey execution. MECON is an ISO 9001: 2015 accredited company and is registered with International Financial Institutions like World Bank, Asian Development Bank, African Development Bank, European Bank of Reconstruction & Development and United Nations Industrial Development Organization etc. MECON has also ventured into newer areas of business with strategic partners to meet challenges emerging from changed business scenario.

5.7.1 Financial Performance

(Rs. in crores)

Parameter	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024) (Provisional)
Turnover	586.67	854.97	923.79	696.52
Operating Profit	(-) 16.91	(-) 43.48	1.62	(-) 134.63
PBT	19.54	34.01	52.08	(-) 95.21
PAT	13.70	31.01	24.52	(-) 95.21

5.7.2 Manpower

The manpower strength of MECON as on 31.12.2024 was 1026.

5.8 MSTC Ltd.

MSTC Ltd., a Category-I Mini Ratna Company under the administrative control of the Ministry of Steel, is one of the leading CPSEs engaged in providing e-commerce related services across diversified industry segment offering e-auction/e-sale, e-procurement services and development of customized software/solutions. MSTC acts as a standalone and neutral e-commerce service provider for various Central / State Government Departments and other private entities to ensure transparent and fair sale and purchase transactions.

MSTC Limited was incorporated as “Metal Scrap Trade Corporation Limited”, on September 9, 1964, at Kolkata for regulating export of ferrous scrap from India. The status of the Company underwent a change in February 1974 when it was made a subsidiary of Steel Authority of India Limited (SAIL). In the year 1982-83, the corporation was converted into an independent CPSE under administrative control of Ministry of Steel. It was the canalizing agency for import of carbon steel melting scrap and old ships for breaking. Import of such items were de-canalised with effect from August, 1991.

In 2002, MSTC developed and launched an e-Auction platform and ventured into the B2B e-Commerce sector. Subsequently MSTC established itself as one of the leading e-commerce service providers in the country. The company also entered the recycling business through a joint venture with Mahindra Accelo Limited and established country's first Registered Vehicle Scrapping Facility. The company operates mainly in three business verticals: (i) e-Commerce, (ii) Trading, and (iii) Recycling via MMRPL.

MSTC has become a trailblazer in offering comprehensive e-commerce services across various industries. As a leader in the market, MSTC utilizes its vast experience and advanced technology to provide customized solutions such as Enterprise Procurement Solutions, e-auction and e-procurement services and e-sales. Additionally, MSTC has created specialized platforms like UDAN, DEEP, telecom spectrum auction portal, auction portal for major and minor mineral blocks, EXIM portal for top petroleum companies and software for the online draw system of Oil Marketing Companies for LPG distribution and retail petrol pump dealership. These initiatives by MSTC aim to improve transparency, efficiency, and competitiveness in procurement, sales, and trading activities.

Recycling: MMRPL, a 50:50 JV between MSTC, and M/s Mahindra Accelo (brand name CERO) is a pioneer authorised auto dismantling centres in India engaged in scrapping of End-of-Life Vehicles (ELVs) in scientific and environmentally sound manner. At present MMRPL has six operational Vehicle Scrapping Centres/Registered Vehicles Scrapping Facilities (RVSFs) in Greater Noida, Chennai, Indore, Ahmedabad, Guwahati and Bengaluru.

5.8.1 Capital Structure

As on 31-12-2024, the authorized capital of the company is Rs. 150 crore and paid up capital is Rs. 70.40 Crore. Government of India holds 64.75% share and the balance 35.25% share is held by the public and others.

5.8.2 Physical Performance

(Rs. in crore)

Parameter	2022-23	2023-24	2024-25 (upto Dec, 2024) (Provisonal)
E-Commerce	301361.05	141387.50	63879.77
Trading	229.45	199.07	88.89
Total Volume of Business	301590.50	141586.57	63968.66

5.8.3 Financial Performance

(Rs. in crore)

Parameter	2022-23	2023-24	2024-25 (upto Dec, 2024) (Provisonal)
Turnover	324.72	316.25	224.24
Operating Profit	319.98	292.17	182.70
Profit Before Tax(PBT)	313.48	284.44	171.62
Profit After Tax(PAT)	239.23	171.91	128.43

5.8.4 Manpower

The manpower strength of MSTC as on 31.12.2024 was 301.

5.9 KIOCL Ltd.

KIOCL Limited (formerly Kudremukh Iron Ore Company Limited), a Schedule-A, Mini Ratna Category-I CPSE under the Ministry of Steel was incorporated on 02.04.1976 with an objective to mine & beneficiate low grade magnetite iron ore from Kudremukh Iron Ore mine in Chickmagaluru District of Karnataka State. The Company is engaged in the business of manufacturing and selling of Iron Oxide Pellets and Foundry Grade Pig Iron from its manufacturing facilities of 3.5 MTPA Pelletisation Plant and 0.216 MTPA Blast Furnace Unit at Mangaluru. The Company has its captive berth and ship loading facilities at Mangaluru. KIOCL is accredited with ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018.

Ministry of Mines, Government of India notified KIOCL as Exploration Entity under Mines and Minerals (Development and Regulation) Act, 1957. Accordingly, the Company has ventured into the business of Exploration of mineral deposits under NMET, Government of India fund and State Government funding.

KIOCL has NABL (National Accreditation Board for Testing and Calibration Laboratories) since 13.04.2022 and is having facility to analyze base & critical minerals.

Solar Power Plant

Under National Solar Mission of Government of India and to partly meet the power requirement for KIOCL Limited, 5.00 MWac Solar Power Plant was commissioned at Kathrikehal Village,

Chikkanayakanahalli, Tumkur District, Karnataka at a Project Cost of ₹24.44 crore (excluding GST). Estimated power generation from the Plant is 10,000 Mwh per annum.

In order to support the Government of India's National Solar Mission, KIOCL has set up a 1.3 MWp capacity Solar Power Plant at the Blast Furnace Unit premises, Mangaluru which has been completed and the plant was inaugurated on January 30, 2019 by Hon'ble Steel Minister in the presence of Senior Officials from Ministry of Steel. Power generation from the project started from February, 2019 and the power is wheeled through grid and being utilized for Pellet Plant at Mangaluru.

Coke Oven Plant

KIOCL has taken up the Forward and Backward Integration Projects of the existing Blast Furnace to reduce the input raw material cost of Blast Furnace and produce value added products. Ministry of Environment, Forest and Climate Change, Government of India had accorded Environmental Clearance for setting up of Non-Recovery Coke Oven Plant (0.18 MTPA) with Cogen Captive Power Plant (10MW) and Ductile Iron Spun Pipe (DISP) (0.2 MTPA) within the existing premises of Blast Furnace Unit at Mangaluru. The construction of Non recovery Coke Oven Plant of the capacity 1.8 LTPA is under progress at Blast Furnace Unit, Mangaluru. The total cost of the Project is ₹185.00 crore exclusive of GST.



Refractory at Coke Oven Battery

Installation of Vertical Pressure Filters

KIOCL has commissioned 4 Vertical Pressure Filters of M/s METSO, Sweden Make at Pellet Plant, Mangaluru to enhance the filtration rate and to achieve desired moisture of 9.5% to 10.5% in Pellet feed material. The pressure filter system facilitates to achieve design capacity of 3.5 MTPA Pellet production with flexibility of blending various sources of Iron Ores and reduction in raw material input cost.

Mechanized Coal/Coke Handling System at Pellet Plant

KIOCL has taken up Mechanized Coal/Coke Handling System at Pellet Plant as an Environmental concern to suppress the dust generation with the project cost of ₹30.78 crore. Construction of Coke Shed under phase-I is completed.

Devadari Iron Ore Mine

Government of Karnataka issued Gazette Notification dated 23.01.2017 for reservation of an area of 470.40 ha. in Devadari Range, Sandur Taluk, Bellary District for Iron Ore and Manganese in favour of KIOCL Limited, under the provisions of Section 17A (2) of MMDR Act, 1957. On 13.02.2017, DMG, Government of Karnataka sought for statutory clearances viz. Mining Plan, Environmental Clearance, Forest Clearance and Consent for Establishment.

Company has obtained all statutory clearances like Mining Plan approval, Environment Clearance, Forest Clearance and Consent for Establishment for DIOM.

Subsequently Mining Lease Deed was executed for an area of 388 ha for Iron and Manganese Ore mining (ML.No.020) with Director, Mines and Geology, Government of Karnataka on 02.01.2023. An amount of ₹329.18 Crore was paid on 13.01.2023 towards Stamp Duty and Registration Charges. The said Mining Lease Deed was registered on 18.01.2023 at the O/o Sub Registrar, Sandur.

Modified Mining Plan necessitated due to change in land use pattern because of reduction in ML area during Forest Clearance from MOEF&CC, was approved by IBM on 11.10.2023 over an extent of 388 Ha.

Hon'ble Finance Minister and Hon'ble Steel Minister have approved the Phase-I of Devadari Iron Ore Mine (DIOM) Project of KIOCL Limited with an estimated cost of ₹882.46 crore from estimated overall project cost of ₹1783.89 crore.

Indian Council of Forestry Research and Education (ICFRE) MoEF & CC, Dehradun, prepared & submitted the Final R & R Plan for Devadari Iron Ore Mine on 27.03.2024 to DMG Bangalore and Member Secretary, Central Empowered Committee (CEC), New Delhi. Further The secretary (MSME & Mines), C& I, Department, GoK, vide letter dated. 21.10.2024 send observation on final R & R Plan prepared by ICFRE with enclosing the proceeding of Technical Committee held on 08.07.2024 to the Chairman, CEC as sought by the same. On approval of R&R Plan by CEC, the same shall be implemented. Approval from CEC is awaited.

Director, Department of Mines and Geology, GoK, vide letter dated 30.12.2024, communicated the Government of Karnataka approval for extension of one year period to record production and dispatch of mineral from DIOM under the provision of 4A(4) of MMDR Act 1957.

Commencement of Development and Production at Devadari Iron Ore Mine is expected by 31.03.2025.

5.9.1 Physical Performance

(In Million Tonnes)

Particulars	2022-23	2023-24	2024-25 (upto December, 2024)
Production of Iron Ore Pellets	1.510	1.905	0.290
Sales of Iron Ore Pellets	1.460	1.790	0.342

5.9.2 Financial Performance

(Rs. in Crores)

Particulars	2022-23	2023-24	2024-25 (upto December, 2024)
Revenue from Operations	1543.42	1854.34	343.80
Profit Before Tax(PBT)	(-) 122.76	(-) 63.70	(-) 158.98
Profit After Tax(PAT)	(-) 97.67	(-) 83.31	(-) 158.98

5.9.3 Manpower

The manpower strength of KIOCL Limited as on 31.03.2024 was 540.

5.9.4 Major Achievements/ Initiatives:

- Hon'ble Steel Minister has accorded approval on 12.06.2024 for operationalization of Devadari Iron Ore Mine with an estimated cost of ₹ 882.46 crore (Phase I operation) for overall project cost of ₹ 1783.89 crore. Subsequently, approval letter was communicated to KIOCL by Ministry of Steel vide letter dated 28.06.2024.
- Director, Department of Mines and Geology, Government of Karnataka vide letter dated 30.12.2024, communicated the Government of Karnataka approval for extension of one year period to record production and dispatch of mineral from DIOM under the provision of 4A(4) of MMDR Act 1957.
- On submission of application from KIOCL, Ministry of Environment Forest & Climate Changes (MoEF&CC), Government of India has accorded approval vide EC amendment letter dated 09.12.2024 for transportation of iron ore by road till installation of Downhill Conveyor System/ over a period of two (2) years i.e. on or before 31st October 2026 with the additional specific conditions for Devadari Iron Ore Mine.
- Two Contract agreements were signed between KIOCL Limited and NMDC Limited on 29.11.2024 for conversion of 1.00 Million Tonnes of Iron Ore Fines into Iron Ore Pellets and marketing & selling of 1.00 Million Tonnes of Iron Ore Pellets in the export market on behalf of NMDC Limited.
- Production activities of Pellet Plant at Mangaluru was resumed on 04.12.2024 on conversion basis to NMDC, for conversion of Iron Ore Fines supplied by NMDC into Iron Ore Pellets.

CHAPTER – VI

PRIVATE SECTOR

6.1 Introduction

The private sector of the Steel Industry is currently playing an important role in production and growth of steel industry in the country. The private sector units consist of both large scale steel producers on one hand and relatively smaller and medium scale units such as Sponge Iron Plants, Mini-Blast Furnace Units, Electric Arc Furnaces, Re-rolling Mills, Cold-rolling Mills and Cooling Units on the other. They not only play an important role in production of primary and secondary steel, but also contribute substantial value addition in terms of quality, innovation and cost effectiveness.

6.2 The leading steel producers in the private sector with their given crude steel capacities are given in the table below:

S. No.	Name of Steel Company	Existing Capacity for 2024-25 (in MTPA)
1	Tata Steel Ltd	20.6
2	Jindal Steel and Power Ltd.	9.6
3	Jindal Stainless Ltd	2.98
4	Vedanta (ESL Steel Ltd.)	1.88

Source: JPC

6.3 TATA STEEL GROUP

Tata Steel is among the top global steel companies with an annual crude steel capacity of 35 million tonnes. Established in Jamshedpur in 1907, the Company is today one of the world's most geographically diversified steel producers, with operations and commercial presence across the world. The group recorded a consolidated turnover of ₹ 2,30,000 crore in the financial year ending March 31, 2024. A Great Place to Work[®]-Certified Organisation, Tata Steel Limited, together with its subsidiaries, associates, and joint ventures, is spread across five continents with an employee base of over 78,000. In India, Tata Steel operates an end-to-end value chain that extends from mining to finished steel goods, catering to an array of market segments such as automotive, construction, general engineering, oil & gas, etc. The Company's manufacturing facilities are in Jamshedpur and Gamharia in Jharkhand and Kalinganagar (including NINL) and Meramandali in Odisha. In Europe, Tata Steel is one of the largest steel producers with two operating steel manufacturing facilities – one based in the UK and the other in the Netherlands. Tata Steel (Thailand) Public Company Limited (TSTH) is the Company's South-East Asian operating

unit. Focusing on Innovation, Technology, Sustainability and People, Tata Steel strives to be the global steel industry benchmark for value creation and corporate citizenship. The Company has set a target of achieving Net Zero emissions by 2045. Tata Steel has received the World Economic Forum's (WEF) Advanced 4th Industrial Revolution Lighthouse recognition for its Jamshedpur, Kalinganagar, and Ijmuiden sites. The Company has also been recognised with the WEF's Global Diversity, Equity & Inclusion Lighthouse 2023.



TATA Steel Kalinganagar, Odisha

6.4 Jindal Steel & Power Limited

Jindal Steel & Power Limited (JSPL) is one of India's prominent business conglomerates, with a strong presence in steel, mining, power, and infrastructure sectors. With operations spanning India, Africa, and Australia, JSPL has established itself as a global leader in its respective industries. Under the strategic guidance of Mr. Naveen Jindal, JSPL has demonstrated consistent growth and innovation. The company's extensive product portfolio serves markets across the entire steel value chain, aligning with the objectives of the "Make in India" initiative. JSPL remains committed to innovation, capacity enhancement, and community development, reinforcing its dedication to fostering a self-reliant nation.



JSPL Angul aerial view

Operations in India

- Chhattisgarh: Raigarh, Raipur, and Punjipatra
- Odisha: Angul, Barbil, Kaisa, and Tensa
- Jharkhand: Patratu

Production Capacities

- Steel Production Capacity: 9.6 MTPA
- Pellet Production Capacity: 15 MTPA
- Iron Ore Production from Indian Assets: 10.6 MTPA

Coal Production Capacity

- Indian Assets: 15.4 MTPA
- Global Assets: 7.4 MTPA

6.5 Jindal Stainless Limited (JSL)

Jindal Stainless, India's largest stainless steel manufacturer, continues to lead the industry with an unwavering commitment to innovation, sustainability, and nation-building. It is ramping up its facilities to reach 4.2 million tonnes of annual melt capacity in FY-27. It has 16 stainless steel manufacturing and processing facilities in India and abroad, including in Spain and Indonesia, and a worldwide network in 12 countries, as of March, 2024. In India, there are ten sales offices and six service centres as of March, 2024. The company's product range includes stainless steel slabs, blooms, coils, plates, sheets, precision strips, wire rods, rebars, blade steel, and coin blanks. Jindal Stainless relies on its integrated operations to enhance its cost competitiveness and operational efficiency. Founded in 1970, Jindal Stainless continues to be inspired by a vision for innovation and enriching lives and is committed to social responsibility.



JSL Hisar Precision Strips Manufacturing

Jindal Stainless has played a crucial role in iconic projects like Chandrayaan-3, the Kolkata Metro, new electric buses developed by JBM Auto, and Dr. B.R. Ambedkar's statue in Hyderabad, showcasing its advanced capabilities and commitment to accelerate India's journey to become Atmanirbhar. Furthermore, the company continues contributing to national defence projects by supplying special alloy steel for cutting-edge technologies like the Supersonic Missile-Assisted Release of Torpedo (SMART) system developed by DRDO for the Indian Navy. Aligned with its vision of sustainability, Jindal Stainless is accelerating its environmental initiatives, including the use of green hydrogen, renewable energy projects, and innovative recycling methods. In FY24, the company reduced its water consumption intensity by 13%, increased its recycled material usage to 72%, and replaced 30% of liquid fossil fuels with bio-LDO at its Hisar plant. Participating in global platforms like the COP28 climate summit, Jindal Stainless has set an ambitious target to reduce carbon emissions by 50% by 2035, supported by INR 700 crore in sustainability investments. Noteworthy projects, such as Odisha's first 7.3 MWp floating solar power plant and a 6.54 MWp rooftop solar plant at Hisar, underline its commitment to renewable energy. Coupled with strategic expansions, including a joint venture in Indonesia and the acquisition of Chromeni Steels Private Limited, Jindal Stainless is poised to solidify its position as a global leader in stainless steel manufacturing, delivering unparalleled value to domestic and international customers.

Jindal Stainless has also emerged as a leader in advancing stainless steel solutions while fostering industry education and skill development through its Stainless Academy. Established in 2015, the Academy has become a training, research, and collaboration hub, benefiting fabricators, MSMEs, railways, and technical institutes across India. Initiatives like Project Yogyataa, launched in partnership with PwC, aim to strengthen the Academy's reach and drive capability-building in the stainless steel ecosystem. With over 1,300 trainees certified under NSQF-aligned courses and 32,912 fabricators trained through 333 programmes by FY-24, the Academy significantly impacts skill enhancement nationwide. It also collaborates with polytechnics and premier engineering institutes to introduce stainless steel courses, creating career opportunities for youth. Additionally, its innovative training vans have covered 4,00,000 km annually, raising awareness and delivering over 300 programmes across India. By combining education, industry collaboration, and sustainable practices, Jindal Stainless continues to pioneer advancements in the stainless steel sector while empowering stakeholders. Jindal Stainless has partnered with IIT Bombay and IIT Kharagpur to foster innovation and research in the stainless steel sector. At IIT Bombay, the company has established a Chair Professorship within the Department of Metallurgical Engineering and Materials Science to advance research in industrial processes and product technologies. This initiative includes integrating stainless steel metallurgy courses into B. Tech and M. Tech programmes, promoting PhD research, and conducting training modules, conferences, and workshops to drive stainless steel adoption and innovation. Simultaneously, Jindal Stainless has signed an MoU with IIT Kharagpur to collaborate on metallurgical projects like process optimisation, materials characterisation, and alloy production. By leveraging IIT Kharagpur's academic expertise and the company's industry leadership, this alliance seeks to address critical challenges, foster transformative innovations, and contribute to the Viksit Bharat 2047 Vision. Together, these partnerships pave the way for cutting-edge advancements in stainless steel technology and India's infrastructural development.

Jindal Stainless empowers its workforce with unparalleled exposure, continuous learning opportunities, and a thriving culture of innovation. With a global presence, employees gain insights into diverse markets, collaborate with industry experts, and contribute to cutting-edge projects shaping the future of stainless steel. The company invests in professional growth through training, workshops, mentorship, and initiatives like a fully sponsored two-year M Tech programme in Steel Technology at IIT Bombay, equipping employees with advanced technical expertise. Internal growth is further fostered through job rotations, leadership programmes, and tailored development plans. To build a sense of community, Jindal Stainless organises events like Family Day celebrations, Women's Day, and cultural festivals, alongside employee engagement activities such as sports, volunteering, and developmental workshops. Encouraging experimentation and curiosity, the company offers early career opportunities, mentorship, and exposure to automation and advanced technologies, ensuring a dynamic environment for innovation and excellence. Jindal Stainless remains committed to fostering positive social impact through its multifaceted CSR initiatives, focusing on community development, education, skill development, women empowerment, and environmental sustainability. Through the Jindal Stainless Foundation, the company addresses pressing social challenges, aligning efforts with the United Nations Sustainable Development Goals. Notable projects include supporting over 5,000 farmers in Odisha and Haryana with improved agricultural practices, providing clean water access to 7,800 individuals, and offering non-formal education and skill training to underserved communities. Programmes like 'Hole in the Wall' and 'Education Through Sports' enhance learning and personality development for children, while initiatives like the Vidya Devi Jindal School and Jindal Institute of Industrial Training equip students and youth with academic and vocational skills. Women's empowerment is a central focus, with initiatives promoting menstrual health, skill development, and gender equality, impacting over 18,000 women and girls. Through strategic collaborations with NGOs, industry leaders, and government agencies, Jindal Stainless ensures its interventions foster sustainable growth, empower communities, and create a more equitable society. Jindal Stainless stands as a beacon of progress, innovation, and responsibility, steadfast in its mission to contribute to India's growth story and the global stainless steel industry.

6.8 VEDANTA (ESL STEEL LTD)

Located in Siyaljori village in the Bokaro district of Jharkhand, ESL Steel Limited, a subsidiary of Vedanta Ltd, is one of the leading manufacturers of iron and steel products. It has a 2.5 million tonnes per annum (MTPA) greenfield integrated steel plant that produces pig iron, billets, TMT bars (Brand Name: V-XEGA), wire rods (Brand Name: V-WIRRO), and ductile iron pipes (Brand Name: V-DUCPIPE). The company is committed to the highest standards of ESG and brings international expertise and solutions from reputed manufacturers to offer world-class services and products to its customers.

CHAPTER – VII

CAPACITY BUILDING

7.1 During FY-25, the Ministry had been implementing its realistic Annual Capacity Building Plan CY 24 in preparing its employees to possess certain demonstrable characteristics and efficiencies aligned with professional aspirations.

The Plan provides an opportunity to continuously strengthen employees' behavioural, functional and domain competencies through organizing courses ranging from 'technological advancement in steel manufacturing' to 'time management'; 7 domain specific, 17 behavioural and 19 functional courses had been identified for employees' lifelong learning.

While the chosen subjects are largely demand based, few emerging subjects have also been included in the Plan to help employees to step out from their comfort zones to become high performers. It offers 2 vital courses namely **i. Self development and ii. Self-awareness** under the behavioural competency area. To enhance the capability of officers on emerging technologies, subject like **AI/ML, MS Excel advanced, social media usage** have been included under the functional competency area.

Ministry's achievement in Capacity Building: FY-25

Sl. No.	Programme / Event organised	Month / Year	No. of participants
1	A team of officers from the Ministry visited Donimalai Mines of NMDC Ltd in Karnataka for being acquainted with the activities going on there	July, 2024	9
2	A group of officers visited Rourkela Steel Plant. As a part of this programme, they got exposure to the ongoing mining activities in the Mines of BSLC Ltd, Odisha	August, 2024	9
3	Visit to Balaghat Mines, the largest Mine of MOIL Ltd. in Madhya Pradesh was held	October, 2024	7
4	Visit to Durgapur Steel Plant under the aegis of SAIL was conducted	October, 2024	14
5	A programme on "Ethics and Governance" was organised in collaboration with the Life Transformation Academy.	October, 2024	40

Sl. No.	Programme / Event organised	Month / Year	No. of participants
6	Interactive session with MTS serving this Ministry took place to sensitize them about various online courses available through iGoT platform	November, 2024	40
7	A session on GeM portal was organised with the help of NIC, Ministry of Steel in hybrid mode	December, 2024	30
8	Meeting was held with the MTS to review their status of course completion through iGoT platform.	January, 2025	30

The Ministry envisaged few behavioural and functional courses available through iGoT platform as an area of large scale intervention. The status of course completion through iGoT portal is as under:

(status as on 30.01.2025)

No. of completed online courses	Number of Employees	Percentage of Employees (%)
>= 1	175	99.44
>= 2	155	88.06
>= 3	153	86.93
>= 4	147	83.52
>= 5	143	81.25

TECHNICAL INSTITUTIONS AND SKILL DEVELOPMENT

8.1 Technical Institutions

8.1.1 National Institute of Secondary Steel Technology (NISST)

National Institute of Secondary Steel Technology (NISST) was set up as a registered society on August 18, 1987. Apart from producing trained technical manpower in Indian iron and steel industries, the Institute also provides industrial services, testing facilities, consultancy services for energy efficiency and reducing pollution levels. It is managed by a Board of Governors with representatives from Industrial Associations, Educational Institutions and Research Organisations apart from the Ministry of Steel.

Key activities of NISST include:

- Training and Skill Development of Indian iron and steel workforce to improve their productivity and efficiency.
- Conducting skill gap survey under the guidance of the Ministry of Steel.
- Industrial Consultancy for energy efficiency, process and quality improvement.
- Energy Audits.
- Safety Inspection.
- Steel Testing Laboratories (NABL Accredited and BIS recognized Mechanical, Metallography and Chemical Labs).
- Third Party Transparency Audit of proactive disclosure package under Right to Information Act, 2005.
- Research and Development based on the issues faced by Secondary Steel sector in the area of Iron making, steel making and Reheating furnaces.
- Development of Standard operating practices and Standard maintenance practices.
- Nodal agency for Measurement, Reporting and Verification (MRV) as well as for issuing greenness certificates and star ratings for steel.

During the FY-25, the Ministry had engaged NISST in conducting a pan-India survey to identify prevailing skill gaps in the Indian Iron & Steel Sector. The survey is going on in full swing.

The Institute carried out field studies of 10 DRI units and also organised 03 workshops under a global project titled **‘Support to collectively respond to the climate emergency and established resilient development pathways for sustaining human security and green transformation’**.

The BIS/NABL accredited labs in NISST tested more than 1000 samples of steel and subsequently the Institute provided in-house training on testing methodologies to the steel workers.

NISST imparted training to 154 students on non-destructive testing in collaboration with M/s ANDT [Advanced Non-Destructive Testing]. It also conducted third party audit of 04 Public Authorities under RTI Act, 2005.

Under industrial services, NISST carried out Energy Audits and Combustion Studies in seven units and also conducted on-site safety inspections of EOT/CPB/PV etc. in 41 units in Mandi Gobindgarh cluster. NISST has also conducted safety audits in 03 units in the State of Kerala. Work related to the activities for Steel Taxonomy has been initiated.

8.1.2 Biju Patnaik National Steel Institute (BPNSI)

Biju Patnaik National Steel Institute (BPNSI) was constituted under the Societies Registration Act, 1860. The Institute started its operation on 1st January, 2002 from Puri, Odisha. The formation of the Institute was later approved by the CCEA in 2004.

BPNSI has presented its presence through offices at Bhubaneswar the capital of State of Odisha and Kalinga Nagar, an upcoming Industry Cluster in Odisha.

BPNSI is in its transformational phase with its mandated objective to emerge as a Centre of Excellence that will provide skilled manpower to the steel industry. During FY-25, the following activities were taken up to make this vision a reality:

- Altogether 12 programme had been conducted till November, 2024 in the five focus areas namely Iron & Steel Making including emerging technologies like AI, ML, IOT, Sustainability-Energy & Environment, Advanced Maintenance Management, Soft Skills, BIS & HS codes.
- The Institute entered into a MoU with IIS SSC, Kolkata for skilling, reskilling and upskilling of Indian iron and steel workforce.

A National Conference on Decarbonisation & Green Metals was held in collaboration with SPCB, Odisha on 6th & 7th February, 2024, which was attended by 110 industries.

8.2 Skill Development

For synergizing country's all skilling efforts in the iron and steel sector, the Ministry regularly coordinates with Ministry of Skill Development, Ministry of Education, Ministry of External Affairs, NITI Aayog and Indian Iron and Steel Sector Skill Council.

With a rapid sensitivity to quality assurance and environmental sustainability, the Ministry constituted a Task Force on skill Development for decarbonisation of the steel sector. As per the recommendation of this Task force, a pan-India survey on prevailing skill gap among the steel workforce had been launched during November, 2024 where information inter-alia on manpower engaged in steel production along with requirement for immediate skilling, female participation are being collected.

During November 2024, a VC was organised with AM/NS, Jindal Steel & Power Ltd., JSW Steel, Tata Steel, Jindal Stainless Limited, Vedanta Limited, CII, FICCI and ASSOCHAM to understand skilling practices and skill demand by those steel majors.

RESEARCH AND DEVELOPMENT

9.1 Background

In India, Research and Development (R&D) in the Iron and Steel Sector is pursued by the various stakeholders viz. R&D Laboratories under CSIR (NML and IMMT), Academic Institutions (IITs and NITs) and the leading steel companies e.g. SAIL, Tata Steel, JSW Steel and AMNS. The leading steel companies are carrying out research from their own funds. Ministry of Steel is supplementing the R&D initiatives of the steel sector by providing financial assistance through a Government funded scheme: “Promotion of Research and Development in the steel sector”.

9.2 R&D with financial assistance from Ministry of Steel

Ministry of Steel is operating a R&D scheme viz. “Promotion of R&D in Iron and Steel Sector”, for providing financial assistance for pursuing R&D to address the technological issues faced by the sector and also indigenous development of processes/ technologies.

R&D Project proposals are invited from reputed Academic Institutions/ Research Laboratories and Indian Steel Companies for pursuing R&D projects for the benefit of the Iron and Steel Sector in the country. In FY 2024-25, the R&D Scheme Guidelines were revised to allow submission of R&D proposals open ended i.e. there is no last date for submission of the proposals.

9.2.1 R&D thrust areas

The thrust areas for providing financial assistance under the R&D Scheme, are development of new alternate processes & technologies to address the burning issues faced by the Iron & Steel Sector such as climate change (green steel production, H₂ based steel production, CCUS etc.), waste utilization, resource efficiency, etc.

9.2.2 Scope of Support

Following are scope of support under the scheme:-

- R&D work in Lab Scale/ Bench Scale and scale-up to Pilot Scale/ Demonstration Plants will be supported.
- In case of Industrial/ Commercial organisations pursuing R&D projects, financial assistance of upto 50% of the total cost is permissible.

- In case of Academic Institutions and National/ Regional Research Laboratories, financial assistance of upto 70% is permissible. Preference will be given to R&D project having tie-up with user industry.
- For Pilot/ Demonstration Scale R&D projects, financial assistance will be limited to upto 40% and the balance to be met by the industrial partner.
- Joint Proposals with other laboratories/ institutions/ industry are desirable for providing support under the scheme.

9.2.3 Quantum of Support

The quantum of funding of the R&D projects from Ministry of Steel during the last 5 years and the current FY is given below:-

Sl.No	Year	Government Funding (in Rs. Crore)
1	2019-20	15.00
2	2020-21	0.54
3	2021-22	4.81
4	2022-23	4.49
5	2023-24	2.94
6	2024-25 (till December, 2024)	2.69
	Total	30.47

- The details of funds released during 2024-25 (till December, 2024) under the scheme "Promotion of R&D in Iron and Steel Sector" is at **Annexure-XV**. The budget allocated for the scheme for the FY 2024-25 is Rs. 5 crore and for the FY 2025-26 is Rs. 6 crore.

9.2.4 Approval and Monitoring Mechanism of the R&D Projects

The approval and monitoring mechanism include-

- An Evaluation Group comprising members from Principal Scientific Adviser to the Government of India, DRDO, DST, Premiere Academic Institutions and Industry, carry out evaluation of the R&D proposals received for funding under the scheme.
- A Project Approval and Monitoring Committee (PAMC) under the Chairmanship of Additional Secretary and Financial Adviser and Joint Secretary, Ministry of Steel, Director IIT Kharagpur, Director IMMT, Director NML are the 2nd Stage approving body for the R&D proposals recommended by Evaluation Group.
- Final approval is accorded by the designated authority based on the cost of the project as per the guidelines issued by Department of Expenditure.
- A Project Review Committee monitors the progress of the on-going projects on a regular basis.

9.2.5 R&D Projects pursued under the Scheme

- Under this scheme R&D projects have been funded to all major stakeholders viz., SAIL, CSIR Labs viz. CSIR-NML, CSIR-IMMT, CSIR-CBRI, CSIR-CRRI etc. besides some academic institutions like, IIT Bombay, IIT Chennai, IIT Madras, IIT BHU, MNIT Jaipur, IARI etc.
- Major projects covered under the scheme include exclusive R&D initiatives to upgrade Indian low/lean grade iron ore and Indian coking/non-coking coal and finding ways to produce quality steel with low Phosphorus in Induction Furnace, development of alternative iron making, utilization of steel plant wastes such as steel slag, addressing climate change issues etc.
- In FY 2024-25, 73 R&D proposals were received from the stakeholders which were preliminary examined vis-a-vis the guidelines of the R&D scheme. 18 R&D proposals were found to be in-line with the guidelines of the R&D scheme. The Meeting of the Evaluation Group was held on 29th & 30th August 2024 wherein 18 R&D project proposals were evaluated and the Evaluation Group had recommended 13 R&D proposals for consideration. Subsequently, the Project Approval & Monitoring Committee (PAMC) and the Competent Authority had accorded approval of the 13 R&D projects in FY 2024-25.

9.2.6 R&D by Steel Companies (Public Sector and Private Sector)

9.2.6.1 Initiatives by Public Sector Units

Steel Authority of India Limited (SAIL):

- ❖ Research and Development Centre for Iron and Steel (RDCIS), located at Ranchi, is the corporate R&D unit of SAIL. RDCIS has several pilot facilities, state-of-art laboratories and large numbers of diagnostic equipment to ensure in-depth scientific research in diverse fields of iron and steel technology.
- ❖ The Centre undertakes both applied and basic research projects for product development as well as for process innovations. It has been instrumental in developing several advanced and value-added steels for Atmanirbhar Bharat in strategic sectors like Defence, Railways, Oil & Gas, Construction, etc. Process innovations are aimed at improving key performance indices related to quality, productivity, yield, production cost, etc. in every stage of iron and steel making from raw materials to finished products.
- ❖ RDCIS has taken new initiatives towards sustainable steel making, which include experimental studies on use of biochar in coke & sinter making and carbon capture & utilization from flue gases; gainful utilization of various steel plant wastes like slag, sludge, sinter return, ferromanganese fines, etc.; enhanced use of prepared burden in blast furnace; and application of ML/AI models for process intensification (optimization) in coke oven, blast furnace, and other areas. RDCIS has also contributed significantly in various committees of Ministry of Steel, Government of India, which were constituted to frame policies and strategies on decarbonization - energy efficiency, material efficiency, biochar, R&D roadmap, etc. In its pursuit for excellence in various research fields, RDCIS regularly collaborates with renowned research institutions and academia. Some of the salient R&D contributions of RDCIS during 2024-25 are listed below.

❖ **Development of new products:**

- MnB steel HR coils for agricultural tillage components.
- Low Relaxation Pre-stressed Concrete(LRPC) wire rods.
- High Corrosion Resistant (HCR) Fe550D grade TMT rebars.
- Low Si E350 (<0.03% Si) & E450 (<0.06% Si) grade HR coils for TLT and monopole.
- IPE 360/NPB 350x170 structural for infrastructural construction segment.
- API 5L X52M PSL-2 grade HR coils for line pipe applications.

❖ **Process innovations:**

- Reduction of coke moisture using surfactant.
- Optimization of coal blend for reduction in cost without deterioration in coke quality.
- Use of Coke Dry Cooling Plant (CDCP) dust & tar decanter sludge for coke making & sinter making.
- Utilisation of Jhama coal for replacement of coke breeze in sinter making.
- Enhancement of steel cleanliness by introducing Double Porous Plug gas purging system and Calcium Treatment practice in steel making process.
- Development of burden tracking model and process optimization in blast furnace.
- Blowing-in with all tuyeres after shot-creting. First time in SAIL, blow-in with all tuyeres after blow-down up-to bosh level has been successfully implemented.
- Enhancing production of R350HT rails by optimisation of chemistry and process parameters.
- Development of Roll pass design for 11mm Wire rod for LRPC.
- Design and commissioning of Improved roll cooling system in Silicon steel mill.
- Cloud based real-time Health monitoring of High Tension Busbar.

❖ **Sustainability initiatives:**

- Lab scale determination of usage limits of Bio-Char for producing biocoal.
- Co-injection of BIOCHAR with PCI (First time in SAIL).
- Use of return sinter and BOF sludge briquette in Blast furnace.
- Use of BOF Sludge Bricks(Green Bricks) as Alternate Coolant in steel making(First time in SAIL).
- Manufacturing of eco-friendly paver blocks using BoF slag.

❖ **Ministry of Steel's assisted initiatives:**

- Hydrogen injection in BF, BSL under National Green Hydrogen Mission.

- 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 – IIT Kharagpur and RDCIS as collaborative partner.

❖ **Collaborations:**

Organisation	Category	Area of Work
IOCL	MoA	Joint Development of Fluid for Reduction in Coke Moisture in SAIL Plants
IOCL	MoA	Joint Development of hot rolling oil for finishing stands of HSM-II, RSP
BHP Billiton	MoU	Steel Decarbonisation
IIT Kanpur	MoU	Research in Iron & Steel Technology
IIMT & Others	MoU	Decarbonisation / DRI
SAIL-BHP-HATCH	NDA	Steel Decarbonisation
RCPL	NDA	Value Added products from GHG Emissions

Rashtriya Ispat Nigam Limited (RINL):

At RINL, R&D initiatives are directed towards meeting the present and future requirements of the plant. Programs in the areas of process improvement, waste management, new product development, cost reduction, environment protection etc. are taken up internally as well as with external organizations under collaborative research.

Major projects on Process & Product Development are under progress during the year include:

- Exploring feasibility of Hydrogen production by utilization of the BF gas by inherently capturing CO₂ and by utilization of industrial waste (LD Slag) for CO₂ mineralization in collaboration with IIT-Delhi.
- A project on partial replacement of lime with limestone in BOF aimed at cost savings through utilization of Co-product (-30mm limestone). Around 620 tonnes of Limestone addition carried out as partial replacement to lime in 520 heats of SMS-2 which has resulted in savings of Rs.10,000 per heat.
- A Study to Improve RDI (Reduction Disintegration Index) of Iron Sinter by Chemical Treatment for better permeability index of Blast Furnace.
- Development of Resulfurized steel grades to increase customer satisfaction.
- A study and development of 'Catch Carbon' technique in BOF of SMS-2 is being carried out for reduction in consumption of ferro-alloys. Oxygen and increase in BOF yield.
- A study to produce low phosphorus steel with calcium ferrite in BOF.

- Studies on the effect of various parameters on resistivity and harden ability of selected steel grades and development of composition based model for predicting resistivity and harden ability of steels.
- Optimization of process parameters to improve the internal soundness of 20MnCr5 grade bloom.
- Identifying causes for failure of discharging furnace roller in STM (Structural Mill).
- Development of Boron, High Carbon and Electrode Quality Grades, Forging Grades and Spring Steel for OEM (Original Equipment Manufacturer) Customers. ACSR, LRPC, 20MnCr5, 19MnB4, IS2879, HCTBQ, 20MnCr5RS-RH and CAQ are successfully produced.

Other Initiatives

- Analytical study on effect of process parameters on lining erosion of LD-2 (SMS-1) carried out wherein Temperature and lining thickness profile of campaign 10 of around 700 heats was studied in detail.
- Feasibility study on “**Utilization of ladle slag as a flux in EAF at ES&F**” has been carried out. Ladle slag with 40-50% CaO and 10-13% MgO can be used as partial replacement to limestone and dolomite in EAF.
- Registered on **MANTHAN** platform launched by PSA, Goland has submitted a problem on “Installing a set up for separation of CO₂ from BF gas to enrich the calorific value and a method for reusing the captured CO₂”. Based on the inputs received from proposals, EoI is updated.
- 5 pilot oven tests were carried out for new Coal Blends with various brands of Coking Coal.
- A committee has been formulated to make an action plan for implementation of the CRRRI (Central Road Research Institute) recommendations for enhancement of LD slag utilization in VSP. Recommendations are being implemented at pilot scale.
- Filed one Patent titled “**Longitudinal Rail Clamping Arrangement in September, 24** and has published one Journal Publication on Evolution and transformation of inclusions in calcium treated low carbon Si-Mn killed steel, Transactions of Indian Institute of Metals in April, 2024.

NMDC Limited:

Core Areas of Research, Present Focus Areas of R&D, and R&D Infrastructure & Facilities

Core Areas of Research:

- **Mineral Beneficiation & Processing:** Development of advanced beneficiation techniques for low/lean-grade iron ore.
- **Agglomeration Technology:** Pelletization and sintering studies along with the development of process/technique in the field of iron ore pellets and utilization of ultra-fines in sintering.

- **Bulk Solid Flow Studies:** Improving material handling efficiency, chute design optimization.
- **Metallurgical Studies:** Research in iron ore and coal processing, including blast furnace simulation and coke making.
- **Chemical Analysis:** NABL-accredited chemical laboratory supporting NMDC's projects.
- **Mineralogical Studies:** Characterization of ores and waste materials.
- **Waste Utilization:** Utilization of SMS slag, mine tailings, and other waste materials.
- **Sustainable Processes:** Hydrogen-based iron-making and dry beneficiation technologies.

Present Focus Areas of R&D:

- **Iron Ore Beneficiation:** Dry processing, advanced separation techniques.
- **Iron Ore Pelletization:** Cold bonded pellet, BF grade pellet from goethite-rich concentrate, High-basidity pellets, etc. for improved blast furnace efficiency.
- **Alternative Iron Making:** Hydrogen-based reduction, coal gasification.
- **Waste-to-Wealth Technologies:** Ferrites, fused magnesia, construction materials from mine waste.
- **Energy Reduction:** Microwave heating for pelletization, dry beneficiation.
- **Process Automation:** Real-time monitoring systems, robot operated lab for regular analysis.
- **Carbon Footprint Reduction:** Low-carbon iron making technologies.

R&D Infrastructure & Facilities:

- **State-of-the-art Labs:** Equipped with advanced analytical and processing equipment, including XRD, XRF, ICP-AES, SEM, AMA, APIC Jig, WHIMS, Pilot Coke Oven, and Blast Furnace Simulation.
- **Bulk Solid Flow Testing:** Equipment for flowability studies, chute design optimization.
- **Automated Chemical Analysis:** NABL-accredited chemical lab with advanced instruments.
- **Pilot Plant Facilities:** Available for mineral processing, beneficiation, and agglomeration.
- **R&D Undertaken FY 2024-25:**
 - **In-House:**
 - Exploring the various beneficiation process flows (Wet and Dry) with respect to different combinations of products of lumps, sinter fines and pellet fines for low grade lateritic/limonitic ore from Bailadila sector.

- Optimization of Pelletization Process Parameters for Iron Ore Containing High Amount of Goethite
- Exploring the use of non-traditional binders in pelletization to reduce the environmental impact and improve pellet quality.
- Studies on Abrasive Wear and Flow Characteristics of Novel Liner materials for Iron Ore handling in OCSL (Ore Crushing Screening and Loading) Plants
- Development of high-tech products like pure aluminum silicate and silicon dioxide from iron ore overburden of Kirandul complex (Dep-14) by Hydrometallurgical route
- **Collaborative Projects:**
 - **CSIR-IMMT Bhubaneswar:** Fused magnesia production from kimberlite tailings and pneumatic conveying studies.
 - **CSIR-IMMT Bhubaneswar:** Study of conveying characteristics and behavior of iron ore in pneumatic conveying system.
- **Sponsored Projects:**
 - **SAIL Gua Mines:** Beneficiation and Pelletization studies with Gua iron ore samples.

Process & Product Development:

- High Basicity Pellets: Developed iron ore pellets with basicity >1 for better blast furnace feedstock.
- Hybrid Pellet-Sinter Process: Utilizing 100% ultra-fines in iron ore sintering.
- Dry Beneficiation: Collaborative work with CSIRO-Australia for low-grade iron ore fines processing.
- BHQ/BHJ Beneficiation: Developed a flow sheet for upgrading BHJ/BHQ ores.

Import Substitution & Export Promotion:

- Microwave-Absorbing Ferrite: Developed ferrites for defense applications, reducing dependency on imports.
- Wear-Resistant Liners: Establish uses of indigenous wear-resistant liners under Atmanirbhar Bharat.

Reducing Energy Consumption:

- Microwave Heating for Pelletization: Energy-efficient method for reducing firing energy.
- Pneumatic Conveying: Developing energy-efficient iron ore transportation systems.

Waste Utilization & Conservation of Resources:

- Mine Waste to Construction Materials: Brick manufacturing from iron ore tailings.

- Fused Magnesia from Kimberlite Waste: Developed fused magnesia from Panna diamond mine tailings.
- Eco-Friendly Tailings Disposal: Paste thickening for better water recovery.
- The Centre has developed a process for using only ultra-fines(-75 micron) in sintering of iron ore, addressing limitations of existing technologies and enhancing raw material efficiency.

NMDC Steel Limited (NSL):

The NMDC Steel Limited (NSL), a public sector undertaking under the aegis of Ministry of Steel, Government of India. The company is a key player in the Indian steel industry, primarily focused on producing high-quality steel and contributing to India's steel manufacturing capacity.

NSL had 07 dedicated quality labs to support various operation activities and a R&D Centre as Central Research & Control Lab (CRCL). The CRCL building and Equipment are in commissioning stage and is expected to be commissioned by 31st March, 2025.

The major thrust of CRCL is for the following:

Conservation of Energy:

- Improvement of the Plant specific energy consumption
- Waste utilization
- Conservation of water

Technology Absorption:

- New Product Development
- Failure Analysis and Investigation
- Elemental Research

CRCL is dedicated to provides internal and external customers with innovative and cost-effective R&D solutions; develop and commercialize improved processes and products; continually enhance the capability of its human resources to emerge as a Centre of excellence. The major efforts are directed towards cost reduction, quality improvement and value-addition to products of NSL plants and providing application based engineering support to NSL products at customers' end.

The CRCL is endowed with state of art laboratory equipments to analyze different minerals, coal, metal and non-metals. Some of the Key facilities includes XRD, WD-XRF, OES, Oil Spectro, Fusion bead, ONH analyzer, Ultimate analyzer, SEM, Metallurgical microscope, Coal Petrology & Ultimate Analyzer, UTM, Impact tester, Hardness tester, CNC lathe, RUL, Refractory testing equipment, TDI, Blast furnace simulation (Softening & melting furnace), RI, RDI Oil & lubricant testing equipment.

Initiatives are given below:

Development of In-house facility to analyse the Sinter Base Mix:

An **iron ore sinter base mix** is a blend of materials used to create sintered iron ore, which is

crucial for the production of steel in blast furnaces. Sintering is a process where fine iron ore particles are heated to a temperature below their melting point, forming larger particles or “sinter” that can be used in a blast furnace.

The components of a typical iron **ore sinter base mix include:** Iron Ore Fines, Limestone, Dolomite, Coke, Sinter return and other additive

The timely analysis of an iron ore sinter base mix is crucial for optimizing the sintering process, ensuring efficient use of materials, and producing high-quality sinter for use in blast furnaces. The right combination of iron ore fines, fluxing agents, fuel, and additives, based on a thorough chemical and physical analysis, leads to improved productivity in steel manufacturing. Initially, the wet chemical method was applied for the analysis of the base mix which was taking 10 – 12 hours for reporting. Due to this, the corrective action in the sinter plant operation was delayed resulting in adverse effect on the quality of the sinter product. CRCL had taken initiative and in-house matrix was developed in the XRF considering different permutation and combination of base mix and now the test was completed in less than 2 hours.

Development of High Strength Low steel (HSLA) grade steel:

NSL had developed various HSLA grades including IS 5986 – ISH600LA, ISH550LA, ISH500LA etc. HSLA (High-Strength Low-Alloy) steel is a type of steel that combines low carbon content with small amounts of alloying elements (like manganese, chromium, and nickel) to achieve high strength, excellent toughness, and good weldability. HSLA steels are integral to a wide range of industries where strength, durability, and weight efficiency are essential. From automotive manufacturing to construction, pipelines, Solar Panel and military applications, HSLA steel offers a versatile solution for engineers and manufacturers seeking high-performance materials.

MOIL Limited:

a) Core Areas of Research, Present Focus areas of R&D and R&D Infrastructure & facilities and manpower engaged.

Core areas of Research in MOIL Limited are:

- **Mining production and development:** striving to increase the Manganese ore production to meet the increased demands of the country.
- **Mineral Exploration:** Search for Manganese deposits by exploratory core drilling by involvement of hired technical manpower and machinery through tender process is being carried out. This has resulted in increase of exploration from 41762m in FY 22-23 to 87660 m (approx.) in FY-23-24. This year, company is targeting a quantum of 1,00,000 m for drilling, of which 72,000m has already been achieved by the third quarter. As a consequence of exploration, 5.98 million tonnes have been added in FY-22-23 and 7.98 million tonnes in FY 23-24 to the Reserve/Resource base.

Particulars	2020-21	2021-22	2022-23	2023-24	2024-25 April-Dec., 2024 (Actual)
Exploration (in Meters)	10414	35728	41762	87660	72340



Drilling Site with Drilling Rig

b) Specific R&D undertaken for Process & Product Development, R&D for import substitution & export promotion, Reducing Energy Consumption, Waste Utilisation, conservation of resources viz. raw materials, water etc. and their results/ outcome/ achievements/ commercialization.

Significant R&D projects in MOIL facilitation mining and increased ore production are listed below:

Mine Safety and Productivity

- Project of Evaluation of impact of blasting variables of opencast over the underground workings at Chikla Mine is being undertaken with CSIR-CIMFR to evaluate deep hole blasting variables and their effect on blast vibrations in underground workings and also suggest precautionary measures to minimize damage to the underground works due to blasting on surface.
- Project of R&D Study on Design of Blasthole Stopping at Kandri Mine is being undertaken with CSIR-CIMFR to design a trial Blasthole Stopping method with post backfilling and working on suitable support system for the stopping area along with rock mechanics instrumentation and monitoring scheme for stopping operations.

c) Details of the Academic / National/ International collaboration & achievement thereof

Various Research and Development (R&D) activities have become the need of the time in order to improve the safety and productivity in MOIL's mines. In order to do so, MOIL has engaged following Institutions with virtuosity in this field to aid in this process;

- CSIR- Central Institute of Mining and Fuel Research (CIMFR), Nagpur and Dhanbad
- Texmin ISM Dhanbad

These R&D projects are on their way to help introduce modern mining technologies along with changes in stope designs of MOIL.

The continuous use of software's, modern technologies, industry-academic collaborations and the R&D efforts have shown improvements in safety, productivity and environmental parameters in mining operations.

This has improved the 'mine to mill' expertise of the company in manganese ore deposits. The exploration done at Pani Project located at Chota Udepur District of Gujarat has given positive results. Similarly, the exploration will be carried out in the state of Madhya Pradesh for obtaining new mining leases. This will enhance the production of MOIL.

MECON Ltd.:

Set up in 1986, MECON, R&D Division is recognised by DSIR, Government of India, requiring renewal every three year. The current renewal certificate obtained vide letter no. TU/IV-RD/1191/2022, dated 10-05-2022.

Major Assignments:

- Reply to First Examination Reports (**FER**).
- Patent renewal during the year 2024-25:

Sl. No.	Patent No.	Title
1	291771	A Continuous NO _x Monitoring System
2	309448	Infrared Imagery Based Slag Detection System for Basic Oxygen Furnace (BOF) Converter
3	363573	Thermoelectrically Direct Cooling Heating Helmet.
4	382969	Hybrid thermoelectrically cooled/heated Back-packed Air Circulating Helmet System
5	403408	49.8 m ³ hot volume coke oven battery with PLC controlled hydraulic reversing winch for auto change-over (Angara)
6	419758	Continuous Multi Component Gas Analyzer using NDIR Method
7	475776	Basic Oxygen Furnace Vessel Suspension System
8	458346	Improved 5.0 m tall Coke Oven Battery
9	530055	Infrared Camera based ladle Condition Monitoring System
10	504651	Improved Blast Furnace and Operation thereof, Design Development of 4250m ³ Blast Furnace (Loha)

Technical studies carried out by MECON:

- Green Steel making technology.
- Carbon capture and utilization.
- Efficient utilization/recycling of waste water-Zero Liquid Discharge (ZLD) System.
- Metal Recovery from steel plant slag.
- Indigenous development of Dry Gas Clearing plant in Blast Furnace Complex.
- Project for low grade Iron Ore Beneficiation.

Programs that may be undertaken with support from Ministry:

Infrared camera based ladle/torpedo ladle condition monitoring system

Ladle monitoring systems can help avert major accidents in steel plants due to ladle failure owing to erosion of refractory lining. However, most of the Indian steel plants are not equipped with such preventive monitoring system.

MECON have already installed such a system at RSP funded by MoS and SAIL. Similar assignments may be undertaken in future as well.

R & D investment during 2020-21, 2021-2022, 2022-2023, 2023-2024 & 2024-25

Sl No	Activities	2020-21	2021-22	2022-23	2023-24	2024-25
(a)	Core Areas of Research	Thermography, Environments, Friction Stir Welding materials to be used in super thermal power plant.	Thermography, Environments, Friction Stir Welding materials to be used in super thermal power plant.	Thermography, Environments, Friction Stir Welding materials to be used in super thermal power plant.	Thermography, Environments, Friction Stir Welding (FSW) materials to be used in super thermal power plant.	Carbon capture & Hydrogen Recovery from Coke Oven gas in steel industry, Beneficiation of low grade iron ore, Indigenisation of dry gas cleaning plant for Blast Furnace in steel industry.
(b)	Specific R&D undertaken for process & Product Development	Infrared Camera based Torpedo Ladle car condition monitoring system, Friction Stir Welding (FSW) materials to be used in super thermal power plant.	Infrared Camera based Torpedo Ladle car condition, Friction Stir Welding (FSW) materials to be used in super thermal power plant.	Infrared Camera based Torpedo Ladle car condition, Friction Stir Welding (FSW) materials to be used in super thermal power plant.	Infrared Camera based Ladle Condition Monitoring system, Friction Stir Welding (FSW) materials to be used in super thermal power plant.	Infrared Camera based Ladle Condition Monitoring system, Friction Stir Welding (FSW) materials to be used in super thermal power plant.
	Reducing Energy Consumption, Waste utilization, Conservation of resources, raw materials.	Implementation of zero Liquid Discharge System in Intergrated Steel Plant: NSL, Nagarnar (C.G) Commissioned "Zero Liquid Discharge System for Treatment System-1" in Integrated Steel Plant: SAIL-RSP, Rourkela(Odisha) Engineering & Installation under progress for Metal Recovery Plant from Steel Plant Slag for JSW Steel Plant, Tornagulu (Karnataka).				

SI No	Activities	2020-21	2021-22	2022-23	2023-24	2024-25
(c)	Academic/ national/ international collaboration & achievement thereof.	TATA Steel, Jamshedpur, Jadavpur University	TATA Steel, Jamshedpur, Jadavpur University	TATA Steel, Jamshedpur, Jadavpur University	TATA Steel, Jamshedpur, Jadavpur University	IIT Kanpur (Under discussion)
(d)	R&D and Technology development work being carried out	Ozone monitoring system	-	-	-	Study on Hydrogen based Green Steel making.
(e)	R&D Investments (in Crore)	There was NIL investment, i.e. Capital Expenditure, on Research & Development in financial years 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25 up to 30.09.2024.				
(f)	Publications/ Research Papers/	01	01	01	01	---
	Patents filed & obtained	No. of Patent Sealed : 01 No. of Patent filed/ under process : 10 No. of Patents applied for renewal : 05	No. of Patent Sealed : 01 No. of Patent filed/ under process : 09 No. of Patents applied for renewal : 04	No. of Patent Sealed : 02 No. of Patent filed/ under process : 07 No. of Patents applied for renewal : 05	No. of Patent Sealed : 07 No. of Patents applied for renewal : 05	No. of Patents applied for renewal : 10

KIOCL Ltd.:

❖ R&D / Innovations / Initiatives for Five years.

- Optimization of Grinding Media.
- Screening system Barrel type Reclaimer Ball Mill PLC 5 MW Captive Solar Plant.
- Agitator blades of slurry storage tank.
- High Efficiency Rotor Assembly.
- Fixing of VFD for thickener underflow pump.
- The trial aimed to evaluate THERMOL's efficacy, a multifunctional combustion catalyst designed to lower the specific consumption of Furnace Oil.
- Installation of Auto Flocculant dosing system.

9.2.6.2 Initiatives by Private Sector Units

Tata Steel Limited

Overview of R&D: Established in 1937, Tata Steel R&D stands as one of the pioneering industrial research and development departments in India. Today, it boasts a team of over 250 researchers seamlessly navigating the entire steel manufacturing value chain, from raw materials and iron production to steel making and product innovation. As an ISO 9001:2015 certified department, Tata Steel R&D maintains stringent processes that underpin its operations. The department is committed to continuously understanding market demands by engaging with customers, collaborating with marketing and sales teams, coordinating with operational units, and conducting through technology intelligence studies. Tata Steel aims to be among the top five technology leaders in the global steel industry. Cultivating technological capacity and infrastructure, while nurturing a culture of innovation, is vital to reaching company's goals, which has led us to define key Technology Leadership Areas. The identified Technology leadership areas include Hydrogen, Water, Digital, Mobility, Construction, utilization of low-quality raw materials, coatings, and Carbon capture and utilization. This year, Tata Steel has achieved the distinction of being name done of the Top 20 Innovative Companies at the CII Industrial Innovation Awards 2024, along with winning the CII Industrial IP Award in the patents category. These accolades highlight Tata Steel's exceptional capabilities in the realm of innovation. The R&D Department has the following 13 research groups segregated under two verticals Product research and Process research:

R&D Groups:

Process Research	Product Research
Raw Materials	Product Development
Ferro Alloys & Minerals	Product Application
Coal & Coke Making	Material Welding and Joining
Agglomeration	Advance Material Characterization
Iron Making	Surface Engineering
Steel Making & Casting	Non-Destructive Testing & Sensors

Process Research Highlights (FY 24-25): The brief details of a few key projects ongoing in FY- 25 are provided below:

- Development of APIX80 for Non-Sour Application.
- Development of High Si based Electrical Steels.
- Design and development of APIX65 for Sour application.
- Development of CRDP780/980 from CRMAL route.
- Development of Electrode posited Zn-Ni and Zn-Fe based alloy coatings.
- Hybrid coating system on galvanized substrate.

- Development of Universal coat-based engineering polymer.
- Development of AWSER 100SGMig Wires for high strength welding applications.
- 3D Printing Wire Feedstock for Additive Construction.
- Use of ICME frame work for development of online integrated models in Hot Strip Mills.
- Use of Xiris in welding for improves weld quality.
- Novel technology for manufacturing variable thickness tube.
- Design and development of FRP based wagon.
- New techniques for detection of micro defect online in pinch rolls in hot strip mill.

Process Research Highlights (FY 24-25): The brief details of a few key projects initiated in FY-25 are provided below:

- Use of LF slag to develop value added product.
- Development of Value-added product from low quality Manganese ore.
- New type of organic additives for coke making.
- Pyrometallurgical processing of Low-Grade chromite over burden to extract Nickel and metal values.
- Selective flotation of iron ore.
- Oily bubble flotation to improve fine clean yield at coal washery.
- Use of kraft block for heat recovery and using in mixing and nodulizing water heating.
- Development of AI based model for coke quality prediction and coal blend optimization.
- Coke yield improvement by modifying gas composition inside CDQ chamber.
- Usage of slag fluidizers to tackle slag alumina in blast furnace.
- Muon Imaging of internal features of blast furnace.
- Development of 3D Numerical modeling for evaluating coinjection in blast furnace.
- Successful trial injection of Hydrogen in blast furnace on trial basis.
- Online continuous temperature monitoring for tundish shell.

Industry Academia Collaboration: In the rapidly changing landscape of innovation, academia plays a vital role as a key partner. To support this, Tata Steel has developed a robust research collaboration ecosystem. In addition to working with CSIR labs and IITs on a project-by-project basis, Tata Steel has established several centers of innovation, including:

- a) A Centre for Innovation in Advanced Materials at the Henry Royce Institute.
- b) A center at Imperial College London, dedicated to Sustainable Design and Manufacturing.
- c) A center on Advanced Mobility at the Indian Institute of Technology, Madras.

- d) The Centre for Innovation in Mining and Mineral Beneficiation at the Indian Institute of Technology (Indian School of Mines) in Dhanbad.

These collaborations under score Tata Steel's commitment to advancing innovation through strong academic partnerships.

Tata Steel R&D Roadmap to address sustainability of Iron & Steel Sector

At COP26, India set out its plan to help slow down and halt global warming by reducing the carbon intensity by 45% by 2030 (baseline levels being from 2005s) and target of net zero by 2070. To achieve this target of CO₂ emission and expansion, Tata Steel is pursuing a multi-pronged approach: Existing process improvement, carbon direct avoidance and carbon capture and utilization. Presently, the company is working on several decarbonizing technologies as mentioned below:

Process Improvement of overall value chain: Tata Steel is intensively working to reduce overall fuel and energy consumption from mining to end products.

Scrap recycle business: Tata Steel has commissioned its new 0.5 MTPA Steel Recycling Plant at Rohtak, Haryana and a greenfield project of 0.75 MTPA in Punjab. As part of its commitment to a sustainable tomorrow and circular economy, expansion plan is of 5 MTPA by 2030.

CO₂ capture plant: A5 TPD CO₂ capture plant from blast furnace gas was commissioned in 2021, making it the country's first steel company capturing CO₂ from blast furnace gas. Currently, captured CO₂ is being utilized for in house applications. As the next step, Tata Steel is going to establish scaled up facilities of CO₂ capture integrated with several utilization avenues.

Hydrocarbon injection in blast furnace: Tata Steel conducted a trial for continuous injection of Coal Bed Methane (CBM) gas in one of the Blast Furnaces (E Blast Furnace) at its Jamshedpur Works, making it the first such instance in the world where a steel company has used CBM as injectant.

Tata Steel took another giant step in its journey towards decarbonization by conducting a 4-day trial of hydrogen gas injection in E Blast Furnace at Jamshedpur works. A highest-ever-in-the-world injection rate of 2100 Nm³/hr of hydrogen gas inside the blast furnace was achieved. During the trial, a reduction in coke rate of 15 kg/thm (leading to subsequent reduction of around 50 kg of CO₂ per tonne of crude steel produced) was realized.

Syngas from biomass: Tata Steel is commissioning of a 10TPD capacity gasification unit from municipality waste is going on at Tata Steel Kalinga nagar works. The project aims to demonstrate technology producing syngas from carbon neutral/negative source, whose usage in steel value chain will reduce CO₂ footprint substantially.

CO₂ to value added products: Presently Tata Steel is exploring different pathways for conversion of CO₂ via thermo-chemical, electrochemical, photo-chemical, and biological route. In this regard, Tata Steel has collaborated with various academia, startups and research institutions not only in India but also abroad. Moreover, Tata Steel has already established world class in house research facilities in the domain of CO₂ capture and utilization. Those initiatives would help to develop energy efficient processes for conversion of CO₂ to carbon monoxide, methanol, ethanol, dimethyl ether (DME), organic carbonates, etc. having commercial value and wide range of applications.

H₂ production from by-product gases: A unique proposition of producing H₂ from steel value chain by-product gases, such as coke oven gas (COG) and blast furnace gas (BFG) is under development. Different routes have already been explored with different startups and research institutes via CLC (Chemical Looping Combustion), water gas shift reaction, SOEC (Solid Oxide Electro-Chemical Cell). Planning of pilot scale trial is underway with most viable technology.

Usage of Biochar: Replacement of fossil fuel by biochar has already been explored in blast furnace. Initially Tata steel is targeting 5-10% replacement of coal, and in future its target will be more usage of biochar once the supply chain is established.

Tata Steel is exploring different technologies available for the biomass to biochar conversion and conducted pilot trial in down draft gasifier to produce the biochar with high carbon content. Bamboo plantation has been initiated in the mines area (Jharia) to secure the biomass supply.

Patents, Publications, Collaborations, R&D expenditure

Financial Year	R&D expenditure as % of Turnover	R&D expenditure (INR Crores)	Number of Patents Filed	Number of Patents Granted	Number of Research Collaborations	Number of Technical Publications
FY20	0.43	259	116	133	50	79
FY21	0.36	231	119	190	20	97
FY22	0.17	213.18	125	163	35	80
FY23	0.21	275	132	150	16	82
FY24	0.20	285	142	398	19	58
FY25	NA *	250	62	84	14	23

Note:

- The FY- 25 figures extend upto December 2024.
- Details of R&D expenditure as % of Turnover would be available after financial disclosure of the company for the given FY. The R&D expenditure figures are not audited as of now and audited figures will be available after end of the financial year.
- Patent data also includes the acquired patent portfolio no.

JSW Steel Limited

The Research and Development (R&D) activities at JSW Steel Ltd. involve new process and product development, process improvements for maximization of quality, cost and energy optimization, waste utilization and conservation of natural resources.

a) Core Areas of Research / Present Focus areas of R&D:

- Optimization of resource utilization.
- Quality and productivity improvements and cost optimisation through process efficiency improvements.
- Product development, customization and new applications.
- Recycling and reuse of process waste and conservation of natural resources.
- Developing technology for the up gradation of low-grade iron ores, dry beneficiation of iron ores, and demonstration of pilot scale facilities.

- New application developments and promotion of slag usage in the country.
- New process technology development for process intensification and productivity.
- Development of IP in line with business growth and market strategy.

b) R&D Works (Projects, Results and Achievements) Carried Out during 2024-25

- A total of 59 R&D projects for process improvements, energy optimization, product development & customization, and technology development have been planned in 2024-25.
- A total of 26 projects (projects relating to process, energy and product optimization) have been completed till December, 2024.

• New Product Development:

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
No. of new steel grades developed	58	57	54	110	78	49
No. of import substitute grades developed	16	18	18	15	21	07

c) R&D Roadmap to address sustainability of Iron & Steel Sector :

Road map for achieving the envisaged target by 2030:

- Maximizing use of “Renewable Energy” (purchase power) and phased elimination of thermal coal.
- Promoting advanced beneficiation of iron ore and production of +65 grade pellets for BF feed to minimize coke consumption.
- Maximizing use of pellets feed in BF to improve productivity and minimizing use of imported coking coal as well as reducing CO₂ emission.
- Achieving coking coal consumption between 275-300 Kg and PCI of 200-220 Kg per tonne of hot metal to minimize imported coking coal and reduce GHG emission.
- Partial utilization of Coke Oven Gas (COG) and Natural Gas (NG) in Blast Furnace to reduce coke and PCI injection. Further, possibility of enhancing Hydrogen content in COG through reforming also to be tried in phased manner to ultimately shift to “Green Hydrogen” in Blast Furnace in future.
- Increasing use of scrap and other waste (like BOF dust briquettes) in BOF to move towards “Zero Waste” and minimize CO₂ emission.
- Bringing focus on Carbon Capture and Utilization (CCU) by using BOF gases for “Bio Ethanol Production” using “Gas Fermentation Technology” or Methanol production. To improve carbon efficiency, Hydrogen may be extracted from COG and be added for increasing Bio-Ethanol or Methanol production.
- Installation of Top Gas Turbine Recovery System in BF, Heat Recovery and power generation from Sinter’s off gases.

- Use of advanced Coal Beneficiation techniques to improve yield and minimize ash content in indigenous coking coal.
- Building demonstration projects on Green H₂-DRI through collaborations of public funding, technology and industry.
- Building demonstration projects on Carbon Capture for BF gas and Utilization through collaborations of public funding, technology partners.
- Adoption of Stamp Charge Battery with Dry Quenching to promote use of plastics, pet coke and indigenous soft coking coal to minimize import of coking coal and GHG reduction.
- Adoption of Dry Slag Granulation technology with power generation for BF slag and BOF slag to recover heat, minimize use of water and minimize GHG emissions.
- Introducing alternate fuels/reductants such as bio-char and hydrogen.

d) Key R&D Developments at JSW :

- Development of beneficiation technology for upgrading low grade iron ores and highly siliceous iron ores for agglomeration and utilizing in iron making. This helps in increasing the life of the local iron ore mines and avoids import of high grade ores.
- Development of a new method for producing calcium ferrite from oxygen steel making slag and millscale.
- Development of High strength automotive steels for improving fuel efficiency and import substitution. JSW has become India's leading special steel supplier to all major automotive companies.
- Recycling of generated dusts back in process through in-house developed micro-pelletizing and briquetting technologies. These technologies were first of its kind in the country and helped in improving air quality.
- Development of processing technologies for use of slags in construction activities replacing natural aggregates and river sand. This helps mitigating the impact on environment by reduced stone quarrying and sand mining.
- Development of technologies for recycling waste plastics in electric arc furnace and coke ovens. This helps in avoiding the plastic disposal and reduces the CO₂ emissions.

e) Summary of R&D Investment :

Year	Annual Turnover [Rs. Crores]	Investment in R&D [Rs. in Crores]	R&D Investment against Annual Turnover, [%]
2017-18	64,976	41	0.063
2018-19	77,187	45	0.059
2019-20	64,262	54	0.084
2020-21	70,727	38	0.054
2021-22	1,18,820	39	0.033
2022-23	1,31,687	44	0.034
2023-24	1,35,180	46	0.034

PROMOTION OF STEEL USAGE

10.1 Background

Steel plays a pivotal role in a nation's economy and has been proven to be a driver for prompt environmentally sustainable economic development due to its recyclable nature and faster associated completion times. Usage of more steel in construction and infrastructure development projects results in faster implementation of projects and better quality of structures due to high strength to weight ratio and durability of steel. Also, 100% recyclability of steel allow for improved environmental performance across the entire life cycle.

Steel consumption shows a strong correlation with GDP, especially during the nation building phase. National steel Policy, 2017 envisages making the country self-reliant in all type of steel as well as making Indian Iron and Steel Industry globally competitive. Ministry of Steel is continuously making efforts to enhance steel production capacity domestically and at the same time increase domestic demand and usage of steel.

10.2 Steel Usage scenario in India:

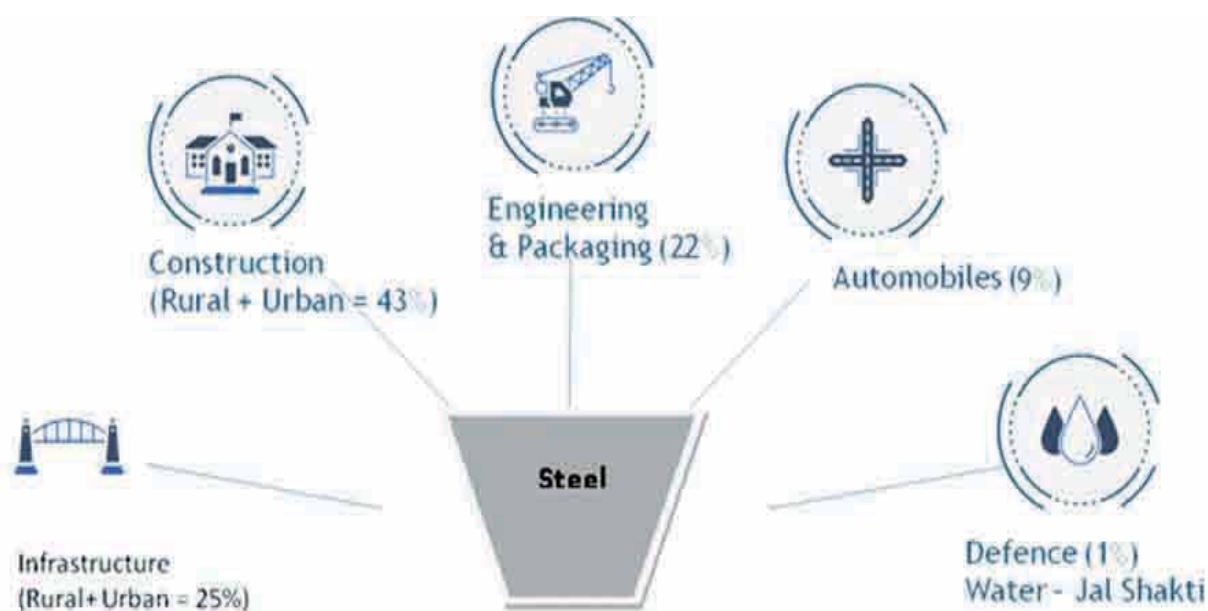
10.2.1 During the last 5 financial years, the consumption of Steel in India is as given below:

Total Finished Steel (alloy/stainless + non-alloy) Consumption

Year	Qty.(mt)	% change over previous years
2020-21	94.89	-5.3
2021-22	106	11.7
2022-23	120	13.2
2023-24	136	13.5
2024-25*	111.5	11.4

Source: JPC (*provisional till December 2024)

10.2.2 In India, steel is primarily consumed in growth driving sectors such as Housing and Construction (43%), Infrastructure Development (25%), Engineering and Packaging (22%), Automotives (9%) and Defence (1%).



10.2.3 During the Financial Year 24, the total steel consumption in the country was 136 Million Tonnes. However, India's annual per capita steel consumption is 97.7 kg per annum and is one-third of the global average. There is large scope to improve the steel usages in various sectors.

10.3 India's steel demand outlook:

India's total steel demand is expected to reach ~230 MT by FY-31. This growth will be driven by the building and construction (rising urbanization rate, increasing steel intensity) and infrastructure segments (investment in roads, railways and airports, increasing steel usage).

10.4 Government initiatives driving steel usage

Government initiatives include:

- The Government has launched the 'Make-in-India' programme, which aims to provide an impetus to the manufacturing and mining sector of the country through various policy initiatives and incentives which is expected to benefit the domestic steel industry.
- The Government's spending for Infrastructure development such as Dedicated Freight Corridors (DFC's), Bharatmala, Sagarmapla, construction of new Ports, Shipping, Waterways, Airports, Defence Corridors etc. across the country through PM Gatishakti Master Plan. The Gatishakti Plan of the Government is helping boost the infrastructure in the country and directly help in generation of higher steel demand.
- Government initiatives such as Pradhan Mantri Awas Yojana – Urban and Gramin, Pradhan Mantri Ujjwala Yojana, Jal Jeevan Mission, National Solar Mission, UDAN (airports), irrigation (PMKSY), National Gas Grid, Sagarmala, and AMRUT and Clean Ganga Mission will be demand drivers for steel and will play a pivotal role in India's rise to one of the largest economies in the world.
- The Government's initiative for Production Linked Incentive (PLI) Scheme for Specialty Steel.

- The Government has also announced a policy for providing preference to domestically manufactured Iron and Steel products in Government procurement. This policy seeks to accomplish PM's vision of 'Make in India' with objective of nation building and encourage domestic manufacturing and is applicable on all government tenders.

10.5 Efforts made by Ministry of Steel to promote steel usage

10.5.1 Ministry of Steel has taken up with BIS for development of Codes for steel intensive construction and BIS formed a Committee having members from Steel Industry and SRTMI. The development of codes is in advanced stage.

10.5.2 A Committee formed by Ministry of Steel with Ministry of Petroleum and Natural Gas to work out the short term, medium term and long term requirements of steel in the Oil and Gas sector. The final report of the Committee has been submitted in August, 2022. This helped the Steel Industry to access the short, medium and long term requirement of steel of the sector concerned.

10.5.3 Ministry of Steel has also formed a Committee of Experts from INSDAG, IITs, Ministry of Road Transport and Highways (MoRTH) and industry experts for development of steel based designs for long span (30m, 35m, and 40m) Road Bridges. The Committee has approved the drawings of 30 m span Bridge in respect of width (13.5 m, 13.75 m, 15.1 m, 17.0 m, 17.5 m and 21.25 m). The same has been forwarded to MoRTH for their adoption.

10.5.4 A Joint Working Group (JWG) co-chaired by Ministry of Steel and Ministry of Housing and Urban Affairs (MoHUA) and having members from BIS, CPWD, Technical Institutions (IITs/ NITs) and Industry has also been setup for fostering steel usage in Housing and Construction sector. A Core Committee was formed under JWG for Development of Type Designs of houses under PMAY and Aanganwaadi Houses across India. The work is under progress.

10.5.5 Ministry of Steel also collaborated with Ministry of Economy, Trade and Industry (METI) of Japan for holding yearly Joint Workshops for sharing knowledge of Japanese side with Indian side for enhancing steel usage in Housing Construction and Infrastructure Development sector. Workshops with Japanese side are held regular yearly basis.

10.5.6 Promotion of Steel usage in Rural India: Steel use in the rural areas has been much lower compared to the use of steel in urban areas. Investment in various flagship schemes by the Government, such as creation of permanent houses under Pradhan Mantri Awas Yojana – Gramin, PMKSY, 'Har Ghar Nal Se Jal' scheme etc. are enhancing steel consumption in rural India. Ministry of Steel has set up a Joint Working Group for developing steel based houses under the PMAY-G and Aaganwadi houses.

Apart from above agricultural implement penetration in rural India (tractors, combine harvesters etc.), construction of steel silos for grain storage and greater rural vehicle penetrations are also increasing the steel use in rural India.

10.6 Efforts made by CPSEs under the Ministry of Steel to promote steel usage

10.6.1 Steel Authority of India Limited (SAIL)

In order to increase steel usage, SAIL has taken steps to increase the reach and availability of its own products across the country especially in the hinterland through its channel network. Some of the developments and outcomes are as below:

- **Tier-2 Distributorship scheme (for TMT):** SAIL supplies its reinforcement bar in retail segment "SAIL-SeQR" which is promoted as better quality steel for safer homes through network of Distributors and Dealers spread across India. As on 31st December, 2024, there were 56 Distributors who in turn had appointed 5221 Dealers. Tier-2 Retail channel sales was 9.5 Lac Tonne in April-December, 24. January-March, 25 sales is expected to be 3.5 Lakh tonne.
- **Tier-1 Distributorship scheme:** In order to cater to the requirement of MSMEs and small businesses, SAIL has strengthened Tier-1 Distributorship Scheme. As on 31st December, 2024, there are 62 distributors in place for catering to the demand of B2B segment. Tier-1 channel sales were 10.9 lakh tonne in April-December, 24.
- SAIL has engaged in various promotional activities to promote steel use awareness throughout the country. **"SAIL Steel-गांवकीओर"** specifically aims to conduct rural workshops to educate rural India on advantages of steel use. During FY 2024-25, about 400 Rural Workshops (named as **"SAIL Gaon Ki Orr"**) were held for propagation of steel usage in rural areas.
- To enhance retail presence, SAIL has launched retail brand **"SAIL- SeQR"**, which is being promoted as better quality steel for safer homes. SAIL has also been promoting usage of steel by advertising through various platforms.
- SAIL has conducted numerous seminars/workshop to promote steel based design and construction. SAIL has also been meeting with senior officials of Central and State Governments to promote enhanced and innovative uses of steel in Government Projects.
- During FY 2024-25, customer meet was held in Mumbai covering customers from various segments and the same was followed by customer's visits to Rourkela Steel Plant (RSP), Bhilai plants.
- A customer contact app with the name **"SAIL Grahak Sampark"** has been launched by CMO to organize and give quick feedback on Customer Meetings by Marketing Executives.
- A TMT estimator has been developed with the help of INSDAG and the same has been provided in **SAIL SURAKSHA E-Portal** to give the estimate of size wise TMT requirement for construction of a building.
- **Initiatives:** Customer Portal, AI based Chatbot SAIL Sarathi, Unmanned weighbridge system, automated Vehicle entry / exit system, Integrated Vehicle Tracking System (IVTS) are some of the digitalization initiatives taken by SAIL to ensure ease of business for customers.

- To increase the outreach, SAIL has also undertaken various promotional activities as listed below:-
 - Advertisements, hoardings and wall paintings at Strategic locations like Railway Stations, Trains, Metro Trains and Newspapers, Buses etc.
 - Installation of reflective stickers on Trailers across entire Northern Region.



- Sponsorship in Karnataka Premier League.
- Participated in Half Marathon in association with Decathlon at Chennai, Dainik Jagran at Lucknow.
- Participated in Steel Construction Expo and Rashtra Expo at Jio World Convention Centre, Mumbai.
- **Last Mile Connectivity:** To deliver material in hassle free manner to the Customers in time at their premises, Door Delivery of around 3.36 Lakh Tonne has been done in past 6 months.
- **Supplies to Projects of National importance:** SAIL was a major supplier for project segment requirements and played a vital role in building critical infrastructure for Nation by supplying steel in prestigious projects.

10.6.2 Rashtriya Ispat Nigam Limited (RINL)

- RINL is continuously striving to reach out to the requirement of its customers and tuning its product range to suit the requirement of its customers.
- Stepping up its High End Value Added Sales (HEVAS) continuously to a level of 35% of Domestic sales during FY 24-25 from a level of 31% in FY 23-24 and 27% in 2022-23.

- Regular Customer meets chaired by Regional/HQ level are conducted wherein range of products are being displayed to enhance the awareness amongst the customers.
- Co-sponsored steel seminars and participated in the events organized by EEPC (Engineering Expo Promotion Council) and construction expos organized at various locations wherein RINL displayed its range of products.
- To penetrate the market, RINL is in the process of restructuring the distribution model, to move forward with the distributor/dealer concept in line with other producers for products like TMT & structural.
- Catering to the remote areas of the country through its on-line portal **E-Suvidha** to facilitate service requirements of every corner of India through on-line digital enquiry and also providing services to the doorsteps of the customers.

As part of Sales Promotion, providing free of cost Display Board, MRRP Display Board, Dealership Certificate and Product literature to the Rural Dealers.

ENERGY, ENVIRONMENT MANAGEMENT AND CLIMATE CHANGE

11.1 Introduction

11.1.1 Steel industry is considered as hard-to-abate sector and it is one of the largest sources of carbon emissions in India. This sector accounts for about 10-12% of total carbon emissions in the country. In alignment with the announcement made by Hon'ble PM in COP26 Summit to reduce carbon intensity of India's economy by more than 45% by 2030 and achieve net-zero by 2070, Ministry of Steel is committed to decarbonize the iron and steel sector, reflecting its dedication to addressing climate change and at the same time striving for continued economic growth and strengthening the sector's global competitiveness.

11.1.2 Decarbonizing the steel industry is challenging due to its energy-intensive processes and carbon-heavy inputs. The Ministry of Steel has already initiated a journey toward producing low-carbon steel in a sustainable manner, implementing streamlined efforts and strategies to facilitate the sector's transition. These initiatives aim to decarbonize the steel industry by leveraging multiple technological and process-oriented solutions

11.2 Key initiatives taken by the Ministry of Steel to decarbonize the iron and steel sector are highlighted as under:

11.2.1 Report on "Greening the Steel Sector in India: Roadmap and Action Plan"

Ministry of Steel released a comprehensive Report titled "Greening the Steel Sector in India: Roadmap and Action Plan" on 10th September, 2024, which is based on the recommendations of 14 Task Forces comprising of stakeholders from Ministries/Departments, Industries, Technology Providers, Experts, Academia, Think Tanks and Innovators etc. This report provides a comprehensive overview of steel sector, discuss the various pathways for the decarbonization of the steel sector and chalks out the strategy, action plan and roadmap on various key levers for Green Transition such as Energy Efficiency, Renewable Energy, Green Hydrogen, Material Efficiency, Process Transition from coal based DRI to Natural Gas based DRI, Carbon Capture, Utilisation and Storage (CCUS) and the use of Biochar in steel industry. The report is available on the official website of Ministry of Steel.

11.2.2 Pilot Projects for use of Green Hydrogen in Steel Sector

Ministry of New and Renewable Energy (MNRE) has launched National Green Hydrogen Mission for green hydrogen production and usage. The steel sector is also a stakeholder in the Mission

and has been allocated budgetary support of Rs. 455 crore for implementation of pilot projects in iron & steel sector under the Mission upto Financial Year 2029-30.

Ministry of Steel has awarded two pilot projects to produce DRI using 100% Hydrogen in vertical shaft and one pilot project to use hydrogen in existing Blast Furnace to reduce coal/coke consumption under this Mission.

11.2.3 Taxonomy of Green Steel:

As a landmark step towards Green Transition of the Iron & Steel Sector, Ministry of Steel has released 'Taxonomy of Green Steel' on 12.12.2024. The Green Steel Taxonomy is a crucial step towards transforming India's steel industry into a more sustainable, low-carbon sector by defining a clear framework for promoting the adoption of green technologies in steel production. The taxonomy will serve as a foundational tool for the development of green steel market, driving investments in green technologies and thus enhancing India's role in the global industrial decarbonisation landscape.

Globally, there is no commonly accepted definition of green steel; India is the first nation to release the Taxonomy of Green Steel.

The Taxonomy of Green Steel has been notified in the Gazette of India, Extraordinary, bearing F. No. 1(6)-2024-ID-2 dated 23.12.2024, which is defined as under:

- i) "Green Steel" shall be defined in terms of percentage greenness of the steel which is produced from the steel plant with CO₂ equivalent emission intensity less than 2.2 tonnes of CO₂e per tonne of finished steel (tfs). The greenness of the steel shall be expressed as a percentage, based on how much the steel plant's emission intensity is lower compared to the 2.2 t-CO₂e/tfs threshold.
- ii) Based on the greenness, the steel shall be rated as follows:
 - **Five-star green-rated steel:** Steel with emission intensity lower than 1.6 t-O₂e/tfs shall be defined as five-star green-rated steel.
 - **Four-star green-rated steel:** Steel with emission intensity between 1.6 and 2.0 t-CO₂e/tfs shall be defined as four-star green-rated steel.
 - **Three-star green-rated steel:** Steel with emission intensity between 2.0 and 2.2 t-CO₂e/tfs shall be defined as three-star green-rated steel.
 - Steel with emission intensity higher than 2.2 t-CO₂e/tfs shall not be eligible for green rating.
 - The threshold limit for defining star rating of Green Steel shall be reviewed every three years.

11.3 Initiatives for energy efficiency

The Ministry of steel is working on initiatives to improve energy efficiency of steel sector. Under this, National Action Plan on Climate Change (NAPCC) has been launched in 2008 to address

the challenge at the national level. NAPCC outlines 8 National Missions, one of them being the National Mission for Enhanced Energy Efficiency (NMEEE).

Perform Achieve and Trade (PAT) Scheme is a component of the National Mission for Enhanced Energy Efficiency (NMEEE) which is one of the eight missions under the NAPCC. PAT is a regulatory instrument to reduce Specific Energy Consumption (SEC) in energy intensive industries, with an associated market-based mechanism to enhance cost effectiveness through certification of excess energy savings, which could be traded. The energy savings achieved by notified industries is converted into tradable instruments called Energy Saving Certificates (ESCerts). The ESCerts after issuance by Ministry of Power (MoP) are traded at Power Exchanges.

Under PAT Scheme, Ministry of Power notifies several industrial units in the steel sector to reduce its Specific Energy Consumption (SEC) every 3 years. It has led to substantial reductions in energy consumption and greenhouse gas emissions in steel sector, contributing to India's sustainable development goals. The total energy savings target and energy achieved under the PAT scheme in Iron & Steel Sector was 7.334 Mtoe and 6.137 Mtoe respectively.

DEVELOPMENT OF NORTH-EASTERN REGION

12.1 Introduction

The Ministry of Steel has been exempted from the requirement of earmarking 10% of its budgetary allocation for this purpose.

12.2 Initiatives by Steel CPSEs in North East

12.2.1 Steel Authority of India Ltd. (SAIL)

North East has been a focus area for SAIL as the region has been relatively under penetrated in terms of steel usage. SAIL has an established marketing network in the North East Region (NER). It has a Branch Sales Office at Guwahati which looks after marketing of Steel products in whole of NER. Apart from Branch Sales Office, there is a Consignment Handling Agency (CHA) at Guwahati and one Consignment Agency (CA) Warehouse located at Silchar. During April- December, 24, SAIL sold more than 1.90 lakh tonnes in NE Region, a growth of 10% over April-December, 23. The projected sale in the Q4 of 2024-25 is expected to be 0.75 lakh tonnes.

In NE Region, SAIL has been catering to various infrastructure projects of national importance like Subansiri Lower Hydro Electric Project of 2000 MW in Assam, India's proposed longest river road bridge of 19 km from Dhubri to Phulbari over river Brahmaputra connecting Assam to Meghalaya, 111 km long BG Extension project connecting Jiribam –Tupul – Imphal involving 52 tunnels and 149 bridges, Expansion Project of Numaligarh Refinery Ltd. In Golaghat, New Guwahati International Airport, Tata Cancer Hospitals & Medical Colleges in various districts of Assam. During FY 2024-25 apart from that SAIL BSO Guwahati had started supplying to projects of prestige like Tata Semiconductor Plant Jagiroad in Assam, Palasbari-Sualkuchi bridge over river Brahmaputra, Dibang Multipurpose Hydroelectric Project of 2880 MW in Arunachal Pradesh, Integrated Directorate Complex Guwahati any many more.



Construction site of Dhubri Bridge



Integrated Directorate Complex Guwahati construction site

SAIL has been contributing in industrial growth of the region by supplying Steel to Cold Reducers, LPG Manufacturer, Electrode Manufacturer, Wire Drawing and several other Industries. Besides sales to Projects and Industries, SAIL has been focusing on meeting requirements of Medium and Small customers through the Tier-1 Distributor located at Guwahati and catering to entire Northeast region covering all 7 States. The products covered under this distributorship are all HR Products, CR Products, PM Plates, GP/GC Sheets, and all Light, Medium & Heavy Structural. Further, for retail requirements, SAIL has established a Tier-2 Distribution Retail Channel network consisting of Distributors and Dealers attached to the Distributor, covering a wide geographical area. The Retail sales in North East India are being catered to by 3 numbers of Tier-2 Distributors and more than 200 numbers of dealers in the NE.



Mason Meet

The key objectives of the scheme is to reach out to the end customer in the retail through an efficient distribution channel and deliver higher value to the consumers / customers through value addition in products, delivery and services. The tier-2 distributorship will help in delivering material to last mile shops and consumers in the hilly areas, which generally face logistical issues due to small volumes, difficult terrains and remote locations.

In order to further the brand awareness and recall among retail customers, various promotional activities like Wall Paintings, Hoardings, Bus Branding through Assam State Transport Corporation (ASTC), Participation in cultural events like BIHU Festival, Bamboo Festival, and many more have been undertaken directly by SAIL and through Distributors.

12.2.2 Rashtriya Ispat Nigam Ltd. (RINL)

The demand for steel in North East India is primarily driven by infrastructure projects, construction activities, and the real estate sector. Infrastructure includes the significant push by Government of India in all areas including bridges, roads, airports, railway, ports/ waterways, hydro-electric projects, refinery expansion, border fencing, border roads etc.

- During FY 2024-25, up to December, 24, RINL dispatched approximately 1,400 MT through its C&F agent to projects in the Northeast, including those under NHAI and NHIDCL.
- Potential customers are being identified for the establishment of a two-tier distribution network in Guwahati.

12.2.3 MSTC Ltd.

MSTC operates a North East Branch Office in Guwahati to serve customers in the region. The branch regularly conducts e-auctions for a wide range of goods, including surplus and scrap materials (both ferrous and non-ferrous), obsolete items, equipment, machinery, vehicles, and various miscellaneous articles. These auctions cater to Government establishments such as Defence Units, CPSEs and various State Government Departments in the North Eastern Region. The scrap materials auctioned by MSTC serve as a secondary raw material source for various industries. The branch is also involved in disposing of End-of-Life Vehicles (ELVs) for Government Departments, adhering to the Standard Operating Procedure (SOP) issued by the Ministry of Road Transport & Highways (MoRTH), Government of India. Additionally, MSTC facilitates coal sales from Meghalaya through its dedicated portal. The office conducts two-stage e-auctions for composite and mining lease licenses for various mineral mines in Assam.

12.2.4 MECON Ltd.

A network of natural gas pipeline is being laid under the Hydro-carbon Vision 2030 of Ministry of Petroleum & Natural Gas (MoPNG), connecting all states of the North East and Sikkim. This grid is called North East Gas Grid (NEGG) and it would be connected to the upcoming Barauni-Guwahati natural gas pipeline which is a part of Urja Ganga Scheme. Indradhanush Gas Grid Limited (IGGL) is a joint venture company (a JV company of GAIL, IOCL, ONGC, OIL & NRL) to develop and operate the grid. NEGG project encompasses a network of natural gas pipelines under the Hydro-carbon vision 2030 of Ministry of Petroleum & Natural Gas (MoPNG), connecting all states of the North east and Sikkim. MECON has been appointed as consultant to the project for rendering PMC services for execution of the project.

Oil India has selected MECON for providing Engineering and Project Monitoring Services Construction of New Drilling E&F and Drilling TS Facility at New Industrial Area, Duliajan. MECON is rendering EPMC Services to Oil India for 5 Microtunneling in Assam and West Bengal and its hook-up with existing pipelines.

MECON is rendering EPMC Services for development of CGD network in Gomti District GA and West Tripura GA for TNGCL and in Cachar, Hailakandi, Karimganj and Kamrup & Kamrup Metropolitan Geographical Areas of Assam for Purba Bharti Gas Private Limited. This is in line with the vision of Government of India to increase share of Natural Gas in country's energy basket.

Oil India has selected MECON for providing Engineering and Project Monitoring Services for 2 additional crude oil storage tank inclusive of ancillary services at Madhuban, Duliajan, Assam. MECON is also providing Consultancy & Site Supervision Services for OIL India's Water Supply Augmentation Project in Duliajan, Assam for catering to the water demand of Duliajan Township and nearby field installations. The capacity of the new Water Treatment Plant to be constructed has been fixed at 8 Million Gallons per Day (MGD).

INTERNATIONAL COOPERATION

13.1 OECD Steel Committee and India

International Cooperation and Collaboration are crucial for bringing the state-of-the-art technologies in the steel sector and for International Trade Development.

Organization for Economic Cooperation and Development (OECD) Steel Committee enables participants to jointly address the challenges faced by the global steel industry and identify solutions to promote open and transparent market for steel industry. It enables countries to gather information on topics pertaining to steel sector, inter-alia, global steel market outlook, regional steel market developments, steel trade and policy developments, developments in steel-making capacity, subsidies and other forms of government support measures and their impact, policy interventions and steel and technological developments. It also publishes and circulates well-researched documents on the aforementioned topics and other topics related with the steel sector. World Steel Association also makes the sectoral presentation bi-annually at this forum.

India is a “participant” at OECD Steel Committee since 2000. As a participant, India is invited to attend all non-confidential agenda items at meetings of the Steel Committee and to contribute to its discussions.

India has been regularly participating in the OECD Steel Committee meeting to ensure that the interest of the Indian domestic steel industry is appropriately presented to the global community and no incorrect inference is drawn about the Indian Steel Industry and its growth story. The 96th session of the Steel Committee was held on 12-13 November, 2024 in Paris, France.

13.2 Official bilateral/ multilateral Engagements

Ministry of Steel participated in following international meetings/seminars as per details given below:

- A delegation led by Mr. Gerassimos Thomas, EU Director General for Taxation & Customs Union met Secretary (Steel) on 1st July 2024 to discuss on the issues pertaining to EU-Carbon Border Adjustment Mechanism (CBAM) & decarbonization in Steel Sector.



Secretary with Foreign Delegation



Foreign Delegation in Steel Room, Ministry of Steel

- Indian delegation participated in the 96th Steel Committee meeting of the OECD held on 12-13 November, 2024 in Paris, France.
- A delegation led by Mr. Hakan Jevrell, State Secretary to Minister for International Development Cooperation and Foreign Trade, Government of Sweden met Secretary (Steel) on 4th December, 2024 to discuss concerns regarding steel imports.

DEVELOPMENT OF INFORMATION TECHNOLOGY

14.1 Introduction

The Ministry of Steel and its CPSEs constantly endeavors to be updated on matters relating to ICT infrastructure, services and application development.

- All the Web Applications and services of the Ministry are hosted in NIC Cloud using PaaS (Platform as a Service).
- A LAN of about 300 nodes with Gigabit Optical Fiber (OFC) backbone is operational in the Ministry.
- NICNET based Internet Connectivity with email facility under NIC/GOV domain has been provided to all the Officials/Divisions of the Ministry.

E-Governance Applications implemented in the Ministry for promoting the concept of paperless office in the Ministry:

- As a part of the National e-governance Plan of DARPG, “**e-office**” software and SPARROW (e-APAR) have been implemented to achieve less-paper office initiative in the Ministry.
- Ministry-wide Intranet portal is also operational in the Ministry.
- E-Requisition, Stock & Inventory Management System is operational and accessible through Ministry’s Intranet Portal.
- LAN in the Ministry is extensively used for email, files sharing, printing on network printers, internet, Video Conferencing, e-Office File Management, Tracking of Receipts, Files of VIP/ PMO References and Cabinet Notes etc. It is also used for Leave Management System, Knowledge Management and Information Dissemination, collecting information/material for Annual Reports, Parliament Questions, Pendency, Tracking and Monitoring Applications (Court Cases, Audit Paras and Parliament Assurances etc.) from Divisions.
- Biometric Attendance System (BAS) is implemented.
- High-Definition VC setup is operational in the chambers of Hon’ble Steel Minister, Hon’ble Minister of State, Secretary (Steel) and Steel Conference Room. Around 950 VC sessions have been conducted during the year.

As a part of eGovernance plan, the following Centralised Citizen Centric Web Based Systems have also been implemented in the Ministry:

- Centralized Public Grievance Redressal & Monitoring System (CPGRAMS) for facilitating Public & Pensioners Grievances in the Ministry and its CPSEs.
- Right to Information Act - Management Information System (RTI-MIS) - facilitates monitoring of Requests and Appeals received under RTI Act, 2005. The system is implemented in the Ministry and its CPSEs.
- Public Financial Management System (PFMS), a financial management platform has been implemented in the Ministry.
- PRAGATI-Platform for Pro-Active Governance and Timely Implementation.
- Online Pension Sanction and Payment Tracking System '**BHAVISHYA**' for timely payment of retirement dues and issue of Pension Payment Order (PPO).
- Legal Information Management & Briefing System(LIMBS).
- **Anubhav** - A platform for Retirees to share experience of working with the Government.
- Recruitment Rules Formulation, Amendment & Monitoring System (RRFAMS).
- CACMS, Representation of Reserved Categories in Posts and Services (RRCPS) Monitoring System in Government of India.
- ACC Vacancy Monitoring System(AVMS).
- E-Visitor Monitoring System(e-VMS).
- E-Samiksha portal.
- SPARROW (Smart Performance Appraisal Report Recording Online Window) for online filing of APAR and Annual Property Returns have also been implemented.

A Task Management system has been implemented in the Ministry of Steel for the monitoring of status of Senior Officers Meeting (SOM) record notes and pendency of tasks assigned by Hon'ble Steel Minister and Secretary (Steel) to other officers of the Ministry.

Ministry's Official Website

The bilingual web-site for Ministry of Steel (<https://steel.gov.in> and <https://इस्पातमंत्रालय.सरकार.भारत/hi>), developed on Content Management Framework (CMF) platform, providing the comprehensive details and functioning of Ministry of Steel and its other offices/ CPSEs is operational and updated on regular basis.

TC-QCO Portal of the Ministry

An online system for Processing of Applications by importers for Clarification on Notified Steel Grades (<https://tc-qco.steel.gov.in/>) has been designed and developed by NIC.

ON TCQCO Portal:

Total Meetings	Total No. of Applications	No. of Applications decided to be Out of Purview	No. of Applications decided to be Covered	No. of Rejected/ Deferred Applications	No. of Applications decided to be overlapping	No. of Applications decided to be outside scope of Ministry of Steel
11	15645	11805	857	1318	45	1620

In the TC Meeting held during 18.10.2024 - 08.11.2024 on TC-QCO Portal:

Total cases Discussed	NOC granted	NOC not granted
4826	1897	2929*

*As per directions of Hon'ble Steel Minister (HSM) (to grant NOC to applications with Bill of Lading prior to 03.12.2024), out of the 2929 applications not granted with NOC, the decision of the 2073 applications were reverted and NOC was granted.

On SIMS portal:

The NOC module of SIMS portal has been operative since 13.11.2024. Only Advance NOC is granted through the portal. A total of 6203 applications for advance clarification have been discussed on the SIMS portal. The bifurcation of the cases as per application type is as below:

Type of Application	Approved	Rejected	Covered	Decision Total
For advance NOC	1304	1852	323	3479
Bill of Lading prior to 03.12.2024	2321	403	0	2724
Total	3625	2255	323	6203

Awards Portal of the Ministry

NMA Awards Portal: Awards Portal (<https://awards.steel.gov.in>) is an online portal to invite applications for nomination of National Metallurgists Day. This Portal is a complete workflow-based system from receipt to Disposal. Applicants registers and applies online for any one of the five categories of the Awards on the Portal. All the applications are being processed online, applicant can online track and review the status of the Application. Online processing of applications is done as per the criteria decided by the competent authority. The Online portal for receiving and processing of Applications has been designed and developed by NIC-Ministry of Steel and hosted on NIC-Cloud.

Research and Development Portal: The Research and Development portal (<https://research.steel.gov.in>) is developed for submission of proposals for the grant of financial assistance under the Scheme: **'Promotion of Research & Development in Iron & Steel Sector'** from Ministry of Steel. The portal is an end-to-end system i.e. submission of proposals by Project Investigators, preliminary checking of documents and evaluation by EG Committee Members. This portal serves as a dedicated platform to promote and manage research and innovation within the steel sector. The Online portal for receiving and processing of Proposals has been designed and developed by NIC-Ministry of Steel and hosted on NIC-Cloud.

e-indent Portal: The e-indent portal is an online platform for stock and inventory management. It is designed to streamline the process of requisition. This is complete workflow-based system and requisition process is fully automated from filing and till its approval by General Administrative Division. This is a role based application and also list of all indents with their current status (created / sent) is also maintained in this. New indent can also be added by the concerned Division. The portal is maintained by Divisions / Desks and Sections of Ministry of Steel. The Online portal has been designed and developed by NIC-Ministry of Steel and presently hosted on Local server.

CRGO Portal: CRGO portal is developed to collect information on Cold Rolled Grain Oriented (CRGO) steel consumption to understand its demand, usage trends and supply chains from manufacturers / processors under collection of Statistics Act, 2008. A questionnaire based form for CRGO steel consumption is designed to gather relevant data about basic details of company such as Company Name, Address, Company Person's Details and Nature of Business. The form also depicted to collect data for products of company manufactures, sells, details of CRGO steel procurement and details of CRGO steel sold by the company after processing. The Online portal for collecting CRGO data has been designed and developed by NIC-Ministry of Steel and hosted on NIC-Cloud.

Monitoring Dashboards

Analytical Dashboard of the Ministry: Steel Dashboard 2.0 of the Ministry of Steel is an interactive and dynamic online platform that captures the performance on various parameters related to steel sector such as steel capacity utilisation, production and consumption, prices, raw material production, trade, stocks, CPSEs performance and rail production etc. The Dashboard helps to monitor and analyze the performance of steel Companies on real time basis for different KPIs of Steel sector. The Steel Dashboard (<https://analytics.steel.gov.in/>) is an Analytical dashboard on Steel Sector performance has been designed using specialized business intelligence (BI) tools.

PRAYAS Dashboard - KPIs Integration: Integration of KPIs for Ministry of Steel in PM Dashboard of Dashboards PRAYAS: KPI's for Ministry of Steel have been successfully integrated with in PM Dashboard of Dashboards PRAYAS. Intuitive visualization has been developed on these KPI for the view of Hon'ble PM of India. Production, Consumption, Trade (Import & Exports) and data from SIMS KPIs have been integrated.

Integration of Schemes with NGO Darpan portal of Niti Aayog: Ministry of Steel has identified the Scheme 'Promotion of Research & Development in Iron & Steel Sector' for integration with NGO Darpan portal. The scheme has been integrated successfully with NGO Darpan portal of Niti Aayog.

Cyber Security

Cyber security is the important practice of protecting systems, networks, websites, portals, mobile apps and applications from digital attacks. Effective cyber security measures safeguard the data from unauthorized access, theft, or misuse, preserving the organization's integrity and maintaining the trust of customers, partners, and stakeholders.

Following are measures being taken up by Ministry of Steel to strengthen the Cyber Security posture of the Department:-

- Chief Information Security Officer (CISO) and Chief Information Officer (CIO) has been appointed for Ministry of Steel and a Dy. CISO from NIC to support CISO has also been appointed.
- CPSEs under Ministry of Steel have been directed to appoint their CISOs.
- Officers/Officials of Ministry of Steel are being sensitized to take all measures to keep their digital infrastructure cyber safe and to maintain cyber hygiene. They have been requested to follow Standard Operating Procedure (SoP) on Cyber Security for Government Employees.
- Cyber security incidents are being reported to NIC-CERT and CERT-IN within stipulated time.
- Timely action on alerts shared by NIC-CERT and CERT-IN for proactive incident response.
- **Network Protection (Udyog Bhawan):-**
 - ❖ VLAN Segmentation is implemented for the ease of administration, confinement of broadcast domains, reduced network traffic and enforcement of security policies. MAC binding of each and every node connected with network is in place.
 - ❖ Visitors and Vendors are being given network access on a separate Swagat Wi-Fi service.
 - ❖ Use of separate SSID's for the employees of Ministry of Steel.
 - ❖ Updating of latest security patches on Network Devices (routers and switches).
- **Security of Desktops/Laptops/Printers/Scanners:-**
 - ❖ Endpoint Detection and Response (EDR) tools and Unified Endpoint Management Tool (UEM) have been deployed on all the nodes of Ministry of Steel.
 - ❖ Isolation of all those devices from the network that do not meet security compliance standards.
 - ❖ Time to time updating of latest patches on Desktops, Laptops, Printers and Scanners.
 - ❖ Security of Cloud Resources:
 - i. Periodical Vulnerability Assessment and Penetration Testing (VA/PT) of virtual machines on NIC/NICSI cloud allocated to Ministry of Steel.
 - ii. Ensuring controlled and minimal access to the cloud resources only through secured channels.
- **Websites/Portals and Applications:-**
 - ❖ Websites, portals and applications of Ministry of Steel are operational on NIC clouds.
 - ❖ Ministry of Steel's website is operational behind Web Application Firewall (WAF) on NIC cloud and has achieved STQC certification for GIGW-2.0.

- ❖ Periodic Application Security audit of Websites and Portals are being conducted as per directions of Cert-In.
- ❖ Alerts / messages are being sent to intended recipients through auto emailing services.
- ❖ ICT infrastructure audit of the Ministry has been completed by the CDAC auditors.
- ❖ Advisory for best Practices is being regularly shared for its further circulation to Attached offices.
- ❖ Digital asset inventory has been prepared for all ICT assets of Ministry.
- ❖ Issues on end points like Obsolete OS, no security agents on the endpoint devices has been reported to competent authority.
- ❖ Draft document of CCMP of Ministry of Steel has been prepared.
- ❖ Onboarding has been done of CSK (Cyber Swachhta Kendra) platform as per directions from Ministry of Electronics and Information Technology (MeitY) to detect IP addresses infected with botnet/malware or vulnerable services running within the IT infrastructure of department organizations and, for sharing automated daily reports/feed with details of such events with respective Department/Organizations, to enable clean up actions.
- ❖ Network architecture diagrams for both High-Level Design (HLD) and Low-Level Design (LLD) of the ICT network has been prepared to facilitate clear understanding and communication of the network structure.
- ❖ Advisory of NCIIPC shared by CISO, MOS is being reported to NIC-Cert for taking necessary action.

14.2 Computerization of Accounts:

Compilation and Computerization of Accounts: Monthly accounts are compiled by PAO for the transaction carried out during the month by the PAO after incorporating the list of payment & receipt of the DDOs, if any under its payment control in the PFMS developed by NIC.

On receipt of accounts from PAO, principal Accounts office compiles the accounts of the whole Ministry with the help of public Financial Management System (PFMS). The monthly accounts so compiled are submitted to the CGA's office online on e-Lekha (<http://164.100.12.160/Elekha/elekhaHome.asp>).

e-LEKHA: The daily accounts astract, online submission of e-DDG, Appropriation Accounts (Stage-I & II), SCT, has been successfully uploaded during the year to the e-Lekha website (<http://164.100.12.160/Elekha/elekhaHome.asp>) for viewing expenditure and receipts of the Ministry at any time.

e-Payment: The Office of the Controller General of Accounts has developed a system to effect payment in Pay & Accounts Office (PAO) through electronic mode. This system of e-payment has been set-up on a share platform among Core Banking Solution (CBS) and PFMS (e-payment gateway). The e-payment system has also been implemented in the PAO, Ministry of Steel and all the payments are being made through e-payment system. The DDO's of the Ministry are being

encouraged to make payment to Government officer and private vendors through e-payment system.

Public Financial Management System (PFMS): Public Financial Management System (PFMS) is a financial management platform for all plan schemes, a database of all recipient agencies, integration with core banking solution of banks handling plan funds, integration with State Treasuries and efficient and effective tracking of fund flow to the lowest level of implementation for plan scheme of the Government. It provides information across all plan schemes/implementation agencies in the country on fund utilization leading to the better monitoring, review and decision support system to enhance public accountability in management programme, reduction of float in the system, direct payment to beneficiaries and greater transparency and accountability in the use of public funds. Thereafter, the application was expanded to include functionalities such as compilation of accounts, budget module, reconciliation of accounts authorization of funds to agent Ministries/Departments for out plan, the expanded PFMS with the above functionalities has so far been implemented in all Civil Ministries/Departments.

All the payments have to be made on-line through Public Financial Management System (<http://pfms.nic.in>). This is being done in the PAO of Ministry of Steel.

e-Bill: The Union Minister for Finance & Corporate Affairs Smt. Nirmala Sitharaman launched the Electronic Bill (e-Bill) processing system, announced in Union Budget 2022-23, on the occasion of 46th Civil Accounts Day. This is part of '**Ease of Doing Business (EoDB) and Digital India eco-system**' to bring in broader transparency and expedite the process of payments. It will enhance transparency, efficiency and faceless-paperless payment system by allowing suppliers and contractors to submit their claim online which will be trackable in real time basis. Accordingly, the Pay & Accounts Office under the guidance of CCA, Ministry of Steel is doing 100% e-bills since October, 2024.

Non-Tax Receipt Portal (NTRP): The objective of the Non-Tax Receipts Portal (NTRP) is to provide a one stop window to citizens / corporates other users for making online deposits of Non-Tax receipts due to Government of India (GoI). NTRP uses the modality of Payment Gateway Aggregator (PGA). A depositor can, therefore, deposit online by using Credit Card, Debit Card or through Net Banking of any of the banks integrated with the PGA. At present, SBlePay is the PGA for NTRP. NTRP is integrated with the accredited banks of different Ministries. Therefore, any deposit made through it would also be captured in the accounts of the respective Pay and Accounts office (PAO). This portal shall serve all those Departments/Ministries, Government of India who do not have any existing solution for online collection of their receipts. The NTRP portal is being used by Ministry of Steel. In FY 2023-24 Rs. 2052.14 crore non-tax revenue was collected through NTRP transaction. In FY 2024-25 Rs. 611.78 crore (Upto December, 2024) non-tax revenue was collected through NTRP transaction.

Expenditure against Transfer (EAT) Module: The objective of the EAT Module is to provide a keen eye on the fund transferred to agencies/CPSEs by the Government of India. Utilized/Un-utilized fund is monitored through PFMS under EAT Module.

14.3 Steel Authority of India Ltd. (SAIL)

SAIL has made significant strides in advancing its digital transformation journey across the

organisation. Some of the initiatives accomplished during the year 2024 are:-

- Coke Quality Prediction Using Artificial Intelligence to enable prediction of coke quality at the stage of coal blend preparation (72 hours in advance).
- Automated Zinc coating control using machine language based on critical contributing parameter variations.
- Coal Blend cost optimization tool is useful in assisted decision-making in scenarios of limited raw material availability.
- Blast Furnace Digital Twin to improve production efficiency by real time analysis of data.
- AI based Silicon prediction model in Blast Furnace to ascertain the thermal stability of the furnace and helps in identifying potential issues before it becomes critical.
- Health monitoring and fault prediction of rotating assets.
- Online system for Vigilance Clearance, which is an end-to-end solution to streamline the entire process, from request submission to the generation of final clearance reports.
- HR Dashboard for SAIL Executives showcasing details of various HR schemes like '**WoW**', '**Shabash**' etc.
- Implementation of end-to-end Digital Project Management System (DPMS) and integration with SAP for real-time tracking of turnkey project progress and payment thereof.
- Development of web based e-Payment module to exhibit & receive various dues from customers and vendors.
- Implementation of Online Billing System (OBS) for job contract and Material procurement through SRM portal.
- Discovery and Approval Process for Reserved Price in E-auction Sales under Secondary Sales maintaining secrecy of reserve price.
- Real time checking the status of vehicle and driving license to promote faster movements of vehicles at gates.
- System for real time Wagon Tracking by Customers.
- Automatic Rake Planning System featuring Destination-based Rake Suggestions, Zone-wise Rake Planning, Outbound Delivery Plan Integration and Order-wise Wagon Proposals.
- Implementation of Speed Surveillance System.
- **SAIL Grahak Sampark App** developed for customer contact.
- Centralised Driving, Monitoring & Reporting of Railway Contract.
- System for Door Delivery of DD material from Yard.
- Implementation of Product Tagging system for generation of product tags for saleable products as per MII (Make in India) specifications and QR code generation. This facilitates the creation of uniform product labels according to the specifications provided by NID (National Institute of Design).

- Laboratory Information Management System for centralised monitoring of the analysis of Iron Ore (Lump & Fine), Limestone, Dolomite, Basemix, Sinter, Hot Metal, Slag, Pallet, Liquid Steel etc.
- NABL accreditation for all mills of BSP as per requirements of NABL-standards in Rolling-Mill-areas of MES.
- System for mapping of activities related to Contractor Safety Management (CSM) in SAP and SRM. Implementation of Initial Star Rating for PRQ and Evaluation by Empanelment has been implemented.

14.4 Rashtriya Ispat Nigam Ltd. (RINL)

RINL has been making continuous efforts in development of IT infrastructure and various IT systems / applications. Achievements during the year 2024-25 (upto Dec, 2024) include:

- **Fortinet Next Gen Firewall implemented.**
- **Improvements in shop floor viz: Steel Melt Shop, Rolling Mills, Central Dispatch Yard (CDY) etc.**
 - Application for generation of report with Converter additions, Secondary Metallurgy Additions and Final Analysis for Ferro Alloys monitoring.
 - Calculation of cast weight based on ladle opening & closing times and speeds of all strands during the period from PLC data.
 - Level-2 SQL Server 2008 fail-over configuration in Rolling Mills.
 - Label Printing Application in CPV1 and CPEL modified with HSN Code and Make in India QR Code Data in Mills.
 - Mobile application for scanning the wagon images and reading the wagon numbers to create rake placement memo in CDY.
 - Printing of Test Certificates as per IS 14650:2023 revised guidelines implemented. UK CARES quality requirements in Mills.
 - Fuel Consumption Module in Traffic MIS to track and monitor fuel consumption on Locos and fuel balance.
- **Improvements in Financial functions:**
 - Automation of secured credit customers' interest debit note for delayed payment implemented in SAP-FiCO module. Bulk posting of invoices for railway inward freight, indigenous coal vendors and service entry sheet processed.
 - Reports for customer business transaction implemented in CRM module (SD) in RINL-**eSuvridha** portal. Discounting price calculation module in case of Master Receivables Purchase Agreement (MRPA) orders from M/s L&T by integrating with L&T systems using API implementation.
 - Automation of Vendor creation for employees in PF, SBF and Gratuity Trusts.

- Applications for Biometric Attendance Recording System for employees and Biometric Access Control System (BACS) for Contract employees implemented.

14.5 NMDC Ltd.

In the process of continuous improvement in journey of digitization and innovative activities NMDC has made functional the following developments:

(A) Status of new Initiatives/ Innovation Schemes during period 01.04.2024 to 31.12.2024:

- CSR software implemented to enhance monitoring of CSR activities.
- Vendor Invoice Management System (VIMS) and Vendor Self Service (VSS) Portal implemented to achieve end-to-end tracking and automation in invoice payment processing and leading to more transparent vendor payment process.
- Ex-Employee Portal **"Samman"** implemented for enabling Ex-Employees to submit and monitor their claims & settlements.
- Hospital Management System (HMS) implemented at all the project hospitals to automate the entire process viz Registration, Inpatient, Outpatient, Laboratory, Pharmacy, Administration and Occupational Health Services (OHS).

(B) Projections for the period 01.01.2025 to 31.03.2025

- Implementation of Stockpile Management System at Bacheli Complex for real-time information of stock inventory.
- Implementation of Digitally Enabled Drilling and Blasting Design Optimization Solution at Bacheli, Kirandul, Donimalai and Panna to optimize drilling & blasting parameters to achieve desired fragmentation and improve safety.
- Revamp of IT Infrastructure including LAN, WAN, Outdoor/ Indoor WiFi etc. to support ongoing & future Digital Initiatives.

14.6 NMDC Steel Ltd.(NSL)

In the process of continuous improvement in the journey of digitization and innovative activities, NMDC Steel Limited has made functional the following developments:

- **Facial Recognition system:** The Facial Recognition system has been implemented for the Contract Labours and employees of different contractors which enables automated recording of the labour attendance. This system has integrated with the Gate pass System.
- **CCTV surveillance system:** The CCTV surveillance system has been installed in Pig Iron Loading area to ensure safety and security of that loading area inside the plant.
- **Gate pass system:** NSL is having computerized gate pass system for contract labour and employees of different contractors which is renewed every six-month due to security reasons.

14.7 MOIL Ltd.

The Company has set-up a full-fledged Systems Department in order to ensure an effective Computerization of all the functional areas of the Company. In order to ensure an adequate IT infrastructure, steps taken by the System Department are as under:

- Installation Computers and other IT equipment's at all its offices and Mines/Plants.
- Ethernet based Local Area Networks (LAN) on Windows and Linux platform is in place at Head Office, Nagpur and at all Mines of the Company.
- For effective sharing of Applications, databases/ information and other resources on regular basis, all the Mines and HO are connected through MPLS, VPN and VPN over Leased line.
- For continuous knowledge acquisition, e-mailing and for inter unit data transfer facilities, all the concerned officials of Head Office have been provided with internet connection through internet leased line on OFC. All the Mines are provided with leased line internet connections on OFC.
- Procurement of goods and services through e-procurement portal of MSTC to bring transparency in procurement process.
- Implementation of ERP in the Company. In addition to core modules viz. FICO, MM, SD, PP, PM, HRM of SAP, the company has also implemented File Lifecycle Management, Document Management System and Employee Self Service Portal.
- State of the art Data center for ERP is designed and commissioned at Corporate office, Nagpur.
- Use of File Lifecycle Management (FLM) for effective file tracking and reduction in paper work.
- Implementation of Customer Portal, wherein customers will be access to various information regarding prices, availability at one place.
- Implementation of Vendor Invoice tracking system, where vendors can upload their invoices online and track the status of the same.
- Scanning / digitizing all records and stores them with electronic index. This will free up office space and the record retrieval will be very efficient.
- MOIL has introduced digitalization in Board meeting as well as Sub-Committee meetings by forwarding agenda notes and related documents online.
- Implementation of Production Reporting System, where higher officials can monitor daily production versus targets.
- Implementation of Complaint Handling System for Vigilance Department.

14.8 MECON Ltd.

To meet the evolving needs of the industry, MECON is actively implementing various IT initiatives. Key IT initiatives undertaken in the period April, 2024 to December, 2024 are given below:

Enterprise Resource Planning (ERP) & Document Management System (DMS):

Post implementation of ERP modules (HCM, MM, SD, PS, FICO, & CRM) & DMS, the process to streamline its operations, improve efficiency, and enhance decision-making capabilities are being undertaken.

Adoption of 3D Engineering systems:

3D modelling systems like Autodesk 3D (AEC, BIM, PDMS, VAULT), Hexagon Smart 3D, Aveva E3D are used to create 3D models for plant/ unit/ shop/ buildings including general transport & layout for various projects executed in MECON. The 3D softwares are widely being used at Ranchi, Delhi & Bangalore offices.

Project Review & Management System (PRMS):

PRMS system has been implemented for effective monitoring & review of project related issues, physical progress, and site activities. Based on the inputs by Project coordinators, site engineers through the system, further review is being done by higher Management.

Adoption of NIC Mail

In-line with Management directive, MECON is in the process to migrate its on-premise **meconlimited.co.in** email to NIC mail. Management approval for the migration has been accorded. Presently, it is under payment process. After payment to NIC, migration process will be initiated in consultation with NIC team.

IT Asset Management system:

Implementation of Asset Management System has been done to effectively manage their IT assets throughout their lifecycle. Implementation is in progress at Ranchi office. Subsequently, it will be implemented in other offices

Microsoft Active Directory:

For centralised management of group policies, security policies, AD is being implemented at MECON Ranchi office and subsequently, it will be extended to other offices of MECON.

PLI Scheme web portal

The web portal (**<https://plischeme.mecon.co.in>**) is for Production Linked Incentive (PLI) for speciality steel in India. The portal has been developed by MECON and is operational since December, 2022. The portal is being used for online progress monitoring of PLI projects by MECON (PMA) & Ministry of Steel.

Cloud Adoption:

PLI portal has been migrated from on-premise server to NIC Cloud after Application Security Certification as per OWASP from STQC, Vulnerability Assessment (VA) & Penetration Testing (PT).

Cyber Security:

As per IT Security guidelines by NIC/ Cert-IN, Management approval has been accorded for procurement of – Endpoint Detection & Response (EDR), Unified Endpoint Management (UEM) & Network Access Control (NAC) etc. Presently, Technical Specification (TS) is under preparation.

14.9 MSTC Ltd.

Following digital initiatives have been undertaken:-

- ISO 27001:2013 certification has been upgraded to newer version of ISO 27001:2022 as per successful surveillance audit conducted by STQC, Kolkata.
- MSTC has successfully developed and implemented various customized projects. A bidding platform for allocating mineral block exploration licenses and offshore mineral block leases, an e-auction platform for the sale of timber for the Chhattisgarh Forest Department, auction platform for the allocation of FM radio waves has been developed. Additionally, MSTC has developed the Steel Import Monitoring System (SIMS) 2.0 portal for the Ministry of Steel.
- MSTC has also developed and customised in-house application of NARAKAS (Nagar Rajbhasha Karyanvayan Samiti) portal for all Steel CPSEs, Implementation of Full-fledged on-the-fly translation of Jaivikkheti portal in multilingual format, State Dashboard to be used for Ministry and States in Jaivikkheti portal, Mobile App for ELV portal, Development and deployment of five packages for FSNL like E-Office, HRMS, Online Recruitment module, Accounting module and Billtrack etc.
- Additionally, MSTC has also developed Coal Gasification portal for Ministry of Coal, Multicurrency bidding for Foreign Buyers in its e-procurement portal(V3) portal, minor Mineral Block Auctions for various states in the year 2024.
- Customized API services have been developed in various applications for company's esteemed principals to automate existing processes.
- MSTC has implemented SIEM and SOAR solutions in its Data Centre at Kolkata for automation in log collection, analysis and response for improved security across different devices and servers.

14.10 KIOCL Ltd.

The Information Technology is widely used in KIOCL across all the Plants and Offices for day to day business.

- **Enterprise Resource Planning (ERP):** SAP S/4 Hana ERP on Cloud platform with core modules like PM, PP, QM, PS, HCM, MM, SRM, FICO, EHS are being used across the organization. This is a major milestone achievement towards digital transformation. The business transactions are being carried out on SAP platform. Implementation of ERP helped in faster decision-making, real-time visibility of the information, accurate and faster access to data, increased efficiency of business processes, single view of data across the organization.
- **File Lifecycle Management (FLM):** The File Life Cycle Management (FLM) module is extensively used for movement of official files between authorized users as per work flow, thus greatly reducing the use of papers. It has inbuilt features like auto workflow, tracking of the files, priority marking etc. The system is highly secured.
- **Document Management System (DMS):** Document Management System is used as Central Repository on cloud, which is secured for the individuals within the Department

for accessing critical document/files. The documents can be linked to FLM and documents stored in DMS can be referred.

- **ICT – Infrastructure:** The ICT infrastructure is periodically upgraded with latest versions and maintained. The Internet leased lines are upgraded to 155 MBPS that has given better bandwidth for Virtual Meeting, VPN connectivity and for Video conference. The VPN connectivity thus provides a single network access to all the applications through different locations of the Company.
- **Security:** The network is secured by using Fortinet Next Generation Firewall and Bit Defender End Point Security for protection of End Point devices.
- **Video Conferencing:** The Artificial Intelligence based VC system having auto sound tracing face recognition system and digital signal processing-based audio system having noise fencing system is being used for Virtual meeting.
- **Network System:** The networking system with NMS, AD and AAA software with centrally Monitoring system and managed CISCO switches are being used without any delay in data flow over the network.
- **Company Website:** The company website is being added by the new sub portals like the Retired employees medical, PF related activities and for E-recruitment and integrated to the SAP system.
- **Email System:** Most of the communications and inter-office correspondences in the organization are carried out through the e-mailing system. The company is using NIC email systems with better security i.e., with two factor authentication for all email communications.
- **Virtual Board Meeting:** Virtual Board Room Software is being used to conduct Paperless Board Meeting.
- **IT initiatives planned for the period from January 2025 to March 2025 are as follows:**
 - **Digitization of Physical Documents:** Digitization of documents is undertaken and will be carried out in phased manner.
 - **E-mail System:** The existing email system will be migrated to the new email system maintained by NIC.

SAFETY

15.1 Background

The iron and steel industry involves a combination of complex processes and large-scale operations, which are hazardous in nature. There are potential dangers inherent in the industry's working environment to which its employees are exposed. The Iron and Steel industry needs to prevent injuries and accidents and provide a healthy working environment to its workforce.

15.2 Initiatives of Ministry of Steel

- Safety is an important aspect in functioning of any industry. It is important not only for its employees and workers but also for the environment and the nation. Iron and Steel production being a complex and hazardous activity, needs to take concerted efforts to prevent injuries and accidents, provide a healthy working environment.
- To make the Iron and Steel industry working environment safer, Ministry of Steel undertook extensive interactions with the stakeholders in identifying the hazards that prevails in the iron and steel making industry and measures that need to be adopted to eliminate accidents.
- As the outcome of the interactions with the stakeholders from the steel industry and its associations and academia of repute and also the efforts of the Working Group constituted for the purpose, a set of 25 common minimum Safety Guidelines for the Iron and Steel Sector was formulated.
- These Safety Guidelines are at par with the global standards. It is compliant with the requirements of the ILO Code of practice on safety in the Iron and Steel industry. Inputs have also been taken from the World Steel Association's guidance document on **"Safety and Health Principles and Definitions"**.
- These guidelines were unveiled by the Hon'ble Steel Minister on 17th February, 2020 in the form of a book viz. **"Safety Guidelines for the Iron and Steel Sector"**, and also uploaded in Ministry of Steel's website.
- The stakeholders from the Indian Steel Industry and its associations have been urged to adopt these guidelines wholeheartedly, to ensure a safe working environment for the workforce. The guidelines have been adopted by the Steel CPSEs.
- Ministry of Labour and Employment has been requested to facilitate mandatory adoption of the Safety Guidelines by the Iron and Steel Industry. Ministry of Labour and Employment

has informed that it is under consideration of the Expert Committee set up for framing standards under Section 18 of the Occupation Safety Health and Working Conditions (OSH&WC) Code, 2020.

- Subsequently, to move the initiative further, it was decided to formulate Process Based Safety Guidelines for the Iron & Steel Sector, based on the specific processes adopted by the sector. These Process Based Safety Guidelines were formulated by the Working Group/ Sub Group after extensive deliberations.
- These process based safety guidelines comprise of 16 guidelines, out of which 4 guidelines are on workplace safety and 12 guidelines are on specific iron & steel making processes.
- These guidelines in the form of volume 2 of the book viz. **"Safety Guidelines for the Iron & Steel Sector"** was formally launched by the Hon'ble Steel Minister on 25th July, 2024.

15.3 Steel Authority of India Ltd. (SAIL)

SAIL Management is committed to provide Safe and healthy work environment to all its employees, contractors and all stakeholders / people associated in its operations including those living in the neighbourhood of its plants, mines and units and accords top most priority to this vital issue amidst other business function.

15.3.1 Management Commitment

SAIL has a comprehensive Safety Policy, which underlines the commitment of Top Management towards this vital issue concerning company's most valuable resources i.e. Human Resource & Machineries.

The various levels of safety engagement in the company for enabling structured monitoring of safety issues are as follows:

- **Board level:** Board Sub Committee on Health, Safety & Environment (BSC on HSE) reviews & monitors the compliances, performances issue guidelines and appraises the board.
- **Corporate level:** SAIL Safety Organisation (SSO) under Director (Technical, Projects & Raw Materials), SAIL coordinates, monitors & facilitates the safety related activities of Plants/ Units and frames guidelines.
- **Plant Level:** Director In-charges/ Head of Units make strategies/ facilitate implementation of safety measures, statutory requirements through Safety & Departmental Heads.

15.3.2 Safety measures and New Initiatives

A number of steps have been taken by the Plants to lay thrust on systematic approach to safety management and promote safety awareness amongst all levels of employees including contractual workers with a view to control incidents. These include organising safety awareness drives & training programs, formulating safety standards / guidelines / procedures; conducting safety inspections and audits including external audits; enforcing usage of Personnel Protective Equipment (PPEs) & safety devices, incident investigation & analysis etc.

New Initiatives: Some of the new initiatives undertaken to improve safety include:-

- Engagement of reputed Safety Management Consultants at Bhilai, Durgapur, Bokaro, Rourkela, IISCO Steel Plant and Alloy Steel Plant to improve the safety culture;
- 'Safety Operating Committee' was constituted and its 2nd meeting on the theme 'Best safety practices at Coke, Sinter, Iron (CSI) in Steel Plants' was participated by SAIL and private steel producers;
- A committee of three members (including SSO) constituted by Ministry of Labour & Employment (MOLE), Government of India carried out study of organizational setup of DGFASLI (Directorate General, Factory Advice Service and Labour Institutes) and suggested measures for revamping/ strengthening;
- For the first time, a training intervention comprising a customized programme on 'Gas Safety in Steel Plant' was conducted at JSW-SAW Ltd., Mundra, Gujarat during 14th-15th October, 2024 with faculty from SSO & BSL;
- LEO (Learning from Each Other) workshops (2 nos.) were conducted on Electrical Safety & Gas Safety Systems & Practices with participation of SAIL plants & country's reputed steel producers;
- Introduction of '**Suraksha Manthan**' for discussing issues of concern with Plants & Units;
- '**Samiksha**' – an e-book comprising of Learning from the Past incidents department/ area-wise was published, which is being revised regularly;
- '**Sukriti**' - an e-Book covering Good Safety Systems & Practices of the Steel Industry was published for the benefit of the plants & units;
- '**Nayi Soch**' - 8 customised animations were prepared for enhancing learning and risk perception of the associated risks;
- '**Suraksha Samvad**' session is conducted in which major incident & major near miss cases of fatality potential are discussed with domain experts through virtual mode to enhance technical knowhow;
- '**Safety Quest**' - a new initiative was conceived & introduced by SSO, comprising a session through virtual mode with a view to learn the good safety systems & practices from safety experts from the different spectrums of the industry;
- Safety Capsule '**Sparsh**' is being organized in the beginning of every training programme at MTI;
- Handbook on '**Liquid metal spillage in SMS**' was published considering all possible reasons for liquid metal spillage in SMS with existing & additional measures after visiting SMS of Plants and interacting with the domain experts including the practices of other steel plants;
- '**Guidelines of Safe Material Handling**' were prepared by a Cross Functional Team (CFT) constituted to frame product-wise safe loading/ unloading procedure;
- Good Safety Practices (G-SaPs) & Safety Alert Messages (SAMs) were disseminated;

- 'Standard Work Procedure & Precautions for Roof sheeting work' were circulated;
- Safety Awareness Training Programmes were conducted for DSOs, ASOs & Line Managers (titled D-SAP); on Mines Safety, CMO Warehouses, Project Safety;
- Analysis of Near Miss Cases w.r.t common causes as well as specific Plants/ Departments-wise conducted using Open-Source Artificial Intelligence (Meta AI & ChatGPT) tools.

15.4 Rashtriya Ispat Nigam Ltd. (RINL)

15.4.1 Management Commitment

RINL has adopted an integrated policy that includes the Safety & Health Policy in line with National Safety Policy. Top Management of RINL strives to create an environment that encourages employee participation towards safety and well being of employees and workers. Several measures are being taken up to achieve zero accident and to improve Safety Culture in the company. Continuous efforts are in place on the implementation of safety standards, monitoring of risk control measures and other proactive measures for reducing potential risks and fostering a culture of well-being for all employees.

15.4.2 Safety set up in RINL

The ISO 45001:2018 system in RINL ensures Proactive Safety Management practices and to encourage employee's participation in Occupational Health and Safety Management, one Central Safety Committee and 31 Departmental Safety Committees exist with equal participation from recognized trade union representatives and management representatives.

15.4.3 Safety Training

Safety Training is a continuous process in the Company to create awareness and safety consciousness among employees and contract workers. In the year 2024-25, safety training was imparted on various aspects of Safety for both Regular Employees & Contract Workmen and fulfilled 100% training target.

15.4.4 Special safety initiatives that were taken up during the year 2024-25

- Constituted safety sub-committees consisting of union representatives at the apex level, along with senior safety officers as group conveners, to assist and cooperate with the management with an objective to prevent accidents of injury and ill health of persons at workplace. These committees cover activities related to the Road Safety, Housekeeping, Incident Investigation and Near Misses, Hazard Identification and Assessment of Risk and Opportunities (HIARO), Safety Promotional Activities, and Personal Protective Equipment (PPE). The main function of the sub-committees is to identify unsafe acts and unsafe conditions throughout the plant and to suggest best safety practices so as to further improve positive Safety Culture in the plant.
- An external Safety Training covering various aspects on "Roles and Responsibility of Safety Committees" was imparted at Regional Labour Institute Shilong to all Central Safety Committee members.

- Special Safety training Sessions (covering all departmental safety committee members) organized on topics – Hazard Identification, Risk Assessment, near miss analysis and accident investigation etc.,
- A Mock-drill was conducted with the theme of Earthquake-Building collapse by involving CISF, NDRF, SDRF, State police and departments. The Deputy Chief Inspector of Factories, Visakhapatnam, Government of AP, witnessed the Mock Drills. All Emergency services like Gas Safety, CISF (Fire)/CISF (Security), Medical services, NDRF and concerned departments have participated in these drills. Also, two plant level mock drills were conducted at Utilities and Energy Management Departments.
- A comprehensive Visitors Safety Module has been developed to enhance safety awareness among visitors. A QR code-based link for accessing the RINL Visitor Training Module is available at the Visitor Information Center, allowing easy access via mobile phones. The training interface is designed to train users in English, Hindi, and Telugu languages. This initiative aims to ensure that all visitors are well-informed about safety practices while on-site.
- Developed short films based on past case studies and shared them through Whatsapp with all employees and contract workers to raise awareness about what went wrong and highlight the precautions to be followed when performing similar activities.
- PPE Exhibitions and campaigns are conducted to promote awareness on various PPEs.
- A Special Training Drive on “Hazard Identification and Assessment of Risk & Opportunities” conducted in 2024-25 to sensitize the employees, contract workmen regarding the hazards and control to be followed in their work area.
- National Safety Day, Steel Safety day were conducted to promote safety awareness among employees, contract workmen and other stake holders.
- As a part of community development, various safety Awareness programs were conducted in the township and nearby colonies. Nukkad Natak playlets were played involving the local public.

15.5 NMDC Ltd.

Implementation of Fleet Management System

NMDC has implemented Fleet Management System at its Bailadila Mines leading to following benefits:

- **Improved Fleet Safety:** Continuous monitoring of driver behavior helps identify risky driving habits, allowing for immediate intervention and corrective actions. This reduces accident rates and ensures compliance with safety regulations.
- **Optimized Route Planning:** Advanced GPS technology and algorithms help identify the most efficient routes, reducing travel distances and fuel consumption.
- **Reduced Operational Costs:** Efficient route planning and maintenance practices help cut costs, including fuel consumption and vehicle maintenance.

- **Enhanced Vehicle Maintenance:** Regular maintenance schedules and predictive maintenance help prevent breakdowns and extend vehicle life.
- **Increased Productivity:** Real-time tracking and route optimization ensure timely deliveries and efficient use of resources.
- **Better Compliance:** FMS helps ensure compliance with regulatory requirements, reducing the risk of fines and legal issues.
- **Environmental Benefits:** Reduced fuel consumption and optimized routes contribute to lower emissions, promoting environmental sustainability.

(i) **Accident & near Miss records are being maintained in ERP(SAP) System:**

NMDC has implemented ERP System and all near miss & accident records with investigation reports are being maintained in ERP system for better analysis, record keeping and taking further preventive measures.

(ii) **Other Health & Safety Facilities:**

- RO plant and Aqua Guards are provided at Projects for supplying good drinking water at required places.
- One-way traffic for HEMM plying in the mines is provided wherever applicable for ensuring safety.
- Big size convex mirrors are provided at blind curves for ensuring visibility of objects / vehicles.
- Air mist dust suppression system is provided at Crusher point and ore transfer points. Dust suppression on haul roads is being done by water sprinkling. Automatic water sprinkling arrangement is provided in some of the permanent haul roads.
- Workplace monitoring studies viz. dust, noise & vibration at projects are being conducted by M/s NIMH, Nagpur and the recommendations are being complied.
- Wet drilling is being practiced.
- Slope stability studies of waste dumps and mine benches at all the Projects are being conducted by M/s CIMFR-CSIR, Dhanbad.
- Additional mirrors have been provided on dumpers for view of blind zones. Rear view camera has been provided on all dumpers. Proximity warning device has been provided in some dumpers. Automatic Fire Suppression system is provided in all the HEMM.
- CCTV Cameras have been provided in OCSL plant areas for observing the critical items.
- AC cabins are provided in HEMM and OCSL Plant for comfort of operators.

15.6 NMDC Steel Ltd.(NSL)

15.6.1 Safety Training:

NMDC Steel Limited has an exclusive safety induction training centre that is well-equipped with the necessary requirements for effective functioning. This centre caters to the needs of basic safety training as well as workplace safety. For refresher safety trainings, the training halls are maintained by the HRD department for upskilling of employees, ensuring they are well-versed in the organization's safety policies, procedures, and emergency protocols. The program emphasizes the importance of workplace safety and equips personnel with the knowledge and skills necessary to identify hazards, respond appropriately to incidents, and maintain a safe working environment. Job-specific training sessions were provided on critical topics such as permit-to-work procedures, Gas Safety Measures, electrical safety etc., across various departments. These programs aimed to enable employees with specialized knowledge related to their roles, ensuring compliance with safety protocols and reducing the likelihood of accidents during operations. By emphasizing critical safety practices, NSL continues its efforts to achieve a zero-accident work environment.

15.6.2 Safety Committees:

Safety Committees have been established as required under section 73-I of Chhattisgarh Factories Rules, 1962 in every major department and auxiliary unit, each tasked with enhancing workplace safety. These committees hold monthly safety meetings to discuss safety-related issues, review incident reports, and identify potential hazards. They implement corrective actions and proactive measures to mitigate risks, ensuring a safer work environment. Through this collaborative approach, the committees address safety concerns promptly, share best practices, and promote compliance with safety regulations. This systematic process helps in reducing accidents, enhancing occupational health, and maintaining a safe and productive workplace.

A two-tier safety review system on a monthly basis is established at NSL, involving senior officials from NSL and Contractual Employees. These meetings focus on discussing safety aspects based on their severity. Recommendations are then made and implemented to enhance safety measures. This collaboration ensures alignment between organizations, prioritizing and addressing safety concerns promptly. By regularly reviewing and updating safety protocols, NSL aims to minimize risks and create a safer working environment for all employees.

15.6.3 Safety Audit:

Internal safety audits of Operation and Maintenance activities across the Packages/Department are being conducted by cross-functional team and this audit involves various departments working together to identify and mitigate any safety risks, ensuring the safety and efficiency of operations. Also, External safety audits are being done at NSL.

15.6.4 Safety Inspection:

Apex-level safety inspections have been initiated to further strengthen safety oversight across NSL operations. These inspections involve high-level assessments to ensure adherence to safety protocols and identify areas for improvement, fostering a culture of continuous safety enhancement.

15.6.5 Inspection of Lifting Equipment's and Pressure Vessels:

As part of compliance with the Factories Act, 1948, and the M.P./C.G. Factories Rule, 1962, inspections and testing of hoists, lifts, lifting machines, chains, ropes, lifting tackles, and pressure vessels were conducted on the shop floor. These inspections ensure that all equipment meets safety standards, thereby reducing the risk of accidents and enhancing overall workplace safety.

15.6.6 Integrated Management System:

NSL has implemented the ISO 45001:2018 Integrated Management System to align its occupational health and safety practices with international standards. This framework ensures a structured approach to risk management and reinforces the organization's commitment to employee safety.

15.6.7 Safety Circle:

In 2024, NSL formed seven Safety Circle teams, with some teams nominated to participate in the 15th Chapter Convention on Quality Circle Concepts held at Jagdalpur and Bhilai. These teams showcased their case study presentations and won gold, silver, and bronze awards, reflecting their commitment to safety excellence and collaborative problem-solving.

15.6.8 Integrated Management System Certification (IMS):

- **Implementation of Integrated Management System & Certification:**

"NSL Steel Plant, Nagarnar, has been awarded Integrated Management Systems (IMS) Licenses by the Bureau of Indian Standards (BIS). This achievement marks a significant milestone, as NSL is the first integrated steel plant in India to receive four ISO Licenses simultaneously."

"The Bureau of Indian Standards (BIS) has recognized four management systems for certification: Environmental Management System (EMS): Conforming to ISO 14001, Quality Management System (QMS): Conforming to ISO 9001, Occupational Health and Safety Management System (OHSMS): Conforming to ISO 45001 and Energy Management System (EnMS): Conforming to ISO 50001"

"Quality, Safety, Environmental protection, and Energy conservation form the foundation of NSL's operations. NSL adhere to rigorous standards to ensure these principles are upheld. This ISO certification signifies company's commitment to sustainable and responsible steelmaking practices. NSL acknowledge that continuous improvement is crucial for achieving excellence."

- **BRSR, ESG, and Sustainability Reporting:**

NMDC Steel Limited (NSL) is committed to sustainable development. NSL continuously monitor their commitment levels and performance towards its Environmental, Social, and Governance (ESG) goals. This is achieved through aligning business objectives with Transparent Business Practices, social equity, and environmental stewardship.

NSL has adopted the stipulated ESG framework and submits its Environmental, Social, and Governance Performance disclosures through the Business Responsibility and Sustainability Reporting (BRSR) as per the ESG framework.

- **Conformite Europeenne (CE) Certification:**

In a strategic move to expand its market base both domestically and internationally, NMDC Steel Limited initiated the “Conformité Européenne” (CE) certification of its NLS product mix.

The CE marking is a conformity mark that signifies a product’s compliance with applicable European Union (EU) health, safety, and environmental protection standards.

The CE Marking is a mandatory requirement for certain products to be legally sold within the European Economic Area (EEA), which encompasses EU member states, as well as Iceland, Liechtenstein, and Norway.

15.7 MOIL Ltd.

MOIL lays special emphasis to ensure safety in the mines and plants. It also takes continuous efforts to reduce accidents by constantly improving the standards of safety equipment through introduction of latest mining techniques and mechanization of mining operations. Following steps have been taken to improve the safety standards at the mines.

- Competent supervisors like Mine Mates, Mine Foremen and qualified Mining Engineers are regularly supervising all the working at mines.
- Training and re-training of workers to inculcate safety consciousness.
- A close interaction with employees at all levels to prevent accidents to the maximum extent possible. SOPs are prepared for each operation at mines, plants etc. and provided to all employees for their concerned jobs in the mines and plants for their safe working.
- Conducting Safety Pakhwada, Suraksha message Pradarshani every month at different mines for safety awareness amongst the workers, supervisors and all employees at mines.
- In the area of occupational health and management system, MOIL has received ISO 45001:2018 for Occupational Health and Safety Management Systems (OHSAS), ISO 14001:2015 for Environmental Management System (EMS), ISO 9001:2015 for Quality Management System (QMS), SA 8000 for Social Accountability International Standard. Certificate and Certification in accordance with GRI Standards for Sustainability Report for the mines in Balaghat, Bhandara and Nagpur district.
- Risk assessment studies are conducted for all underground/opencast mines and safety management plan are reviewed by internal safety management committee of the mine and outside experts.
- Putting in place a disaster management plan for mines, plants, schools, hospitals and administrative offices.

15.8 MECON Ltd.

MECON has prepared Safety Policy Statement which is regularly communicated to the employees during orientation training. Some of the features of the Safety Policy Statement have been incorporated in the Conduct, Discipline and Appeals Rules of the Company so as to ensure proper compliance of Safety Rules. No reportable incidence of accident has occurred in MECON. MECON also has in place a well-documented Disaster Management Plan to take care of exigencies.

15.9 MSTC Ltd.

MSTC is a trading organization and does not have any plant/ manufacturing unit. However, necessary safety measures against fire, natural calamity, control room etc. are observed in all MSTC offices including attendance of a doctor during office hours at Head Office.

15.10 KIOCL Ltd.

The Onsite emergency plan approved by the Director of Factories is in existence for both the Pellet Plant and Blast Furnace Unit. The same will be updated as and when there is a change in plant condition as well as emergency team members. Emergency mock drills are conducted to practice the role of each member of the emergency team and to control all potential emergencies at plant premises. The previous mock drill was conducted on 22.11.2024 at Pellet Plant Unit, Mangaluru. As a part of mutual aid, KIOCL is also participating in nearby chemical and gas industries.



Mock Drill

Worker's participation in the Safety Management system is one of the important subjects as per the Factories Act. The Company has formed area-wise safety committees. Worker's participation in these Safety Committees is ensured in Pellet Plant Unit and Blast Furnace Unit of KIOCL.

The previous meetings are conducted on 28.05.2024 & 23.09.2024 at Pellet Plant Unit and 27.06.2024 & 18.10.2024 at Blast Furnace Unit.

As per statutory requirement and to maintain the plant premises in the safe condition, External Safety Audit was conducted in the month of July, 2024 through the agency M/s Bureau Veritas Industrial Services (India) Pvt. Ltd, Bengaluru. Next external Safety Audit is planned during June, 2026.

A very effective administrative tool for educating the employees regarding safety is toolbox talk which is being in practice in both units on a daily basis to educate all the workmen including contractors and various safety posters & Do's/ Don'ts were displayed at various locations of plant premises.



Toolbox talk

Safety Inspections are carried out regularly once in a week and once in two months by the Safety Department / staff along with concerned Department Executive Engineers and Safety Committee members. The inspection reports were prepared and reported to concerned Departmental Heads for compliance. The previous Inspection was completed during March 2024, June 2024 and September 2024.

Procurement of Personal Protective Equipment (PPE) as per ISI standard norms such as Safety helmets, Safety Shoes, Respirators, Raincoats, Hand Gloves, Safety Goggles, Face shields, Aprons and Ear plugs/muffs are purchased and issued to all employees including Contract labors to protect them against workplace hazards. 32,00,000 /- (Thirty-Two Lakhs only) worth PPE purchased during 2024-25.

Various Training programs are being conducted among Executives, Non-Executives & Contract workers, to inculcate Safety consciousness and to develop safety culture at plant premises. Topics covered during 2024-25 were, Safety induction training, Vertigo test training, Refresher Training on SOPs and Maintenance activities, First aid Firefighting training, Awareness program on Environment, Occupational health, Safety, Vigilance Sustainable development, and Productivity. The total training of 2035 Man days were provided for regular employees on the above said subjects and 822 Man days for contractor's workmen on Workplace Safety, as per IMS requirement and statutory requirement.

24 ATS trainees training, On-the-job skill development training to technical college students for 86 students and also provided one week Internship training during 2024-25.

National Safety Week is being celebrated in the month of March every year to inculcate safety among the workmen.

As per the fire safety norms, Fire Extinguishers (20 Co2, 9 DCP, 4 Foam type and 4 fire bucket) were installed at new Vertical Pressure Filter building.

“Nil” accidents and fire incidents during the year 2024-25.

Vertigo testing structure were erected and inaugurated by CMD on 17.08.2024 and all the workers working at height will undergo vertigo test and on fitness by the Medical Department, they will be allowed to work at height. Total 85 persons undergone vertigo test and found fit during the year 2024-25.

Safety code for Iron & Steel Sector:

At KIOCL, the company has been following SOPs and each Department in the Plant has their own standard operating procedures which are being followed. Based on the Departments involved in the production process at Pellet Plant, a booklet has been prepared on “Code of Safety Practices” at Pellet Plant from the Safety Department to follow these safety practices meticulously by the concerned. More emphasis has been given on the safety aspects related to the equipment’s in use at KIOCL’s Pellet Plant. The Steel Safety code is studied and adopted in the company. A regular training is provided for all employees in faced manner.

WELFARE OF WEAKER SECTIONS OF SOCIETY

16.1 Introduction

The Ministry of Steel complies with the Government guidelines with regard to welfare of weaker sections of the society. Out of total manpower of 184 employees against sanctioned strength of 245 in the Ministry, as on 31.12.2024, 38 belong to SC (20.65%), 13 belong to ST (7.06%), 43 belong to OBC (23.36%) and 1 belong to EWS (0.54%). The posts belonging to Central Secretariat Services (CSS), Central Secretariat Clerical Services (CSCS), Central Secretariat Stenographers Service (CSSS) and Central Staffing Scheme are filled by Department of Personnel and Training (DoP&T) and the posts belonging to Indian Enterprises Development Service (IEDS) are filled by Ministry of Micro, Small and Medium Enterprises. Besides, Officers from All India Services and other organized services i.e. Indian Economic Service and Indian Statistical Service are deputed from their respective parent cadre.

16.2 Steel Authority of India Ltd. (SAIL)

SAIL follows Government directives on Reservation for Scheduled Castes and Scheduled Tribes in the matter of recruitments and promotions. As on 31.12.2024, out of total manpower of 53907, 9165 belong to SCs (17.00%), 8696 belong to STs (16.13%) and 9393 belong to OBCs (17.42%). As on 31.12.2024, a total of 141 employees out of 53907 belong to EWS category i.e. around 0.26%. Reservation for OBCs came into force with effect from 08.09.1993 and candidates belonging to OBC who joined prior to that are shown against the Unreserved (UR) category.

SAIL Plants and Units including Mines are situated in economically backward regions of the country with predominant SC/ST population. Therefore, SAIL has worked towards overall development of civic, medical, educational and other facilities in these regions. Some of the contributions are:

- Recruitment of non-executive employees, which comprise close to 82% of the total employees, are carried out at Plant/unit level normally attracting local candidates from the region and hence a large number of SCs/STs and other weaker section of the society get benefit of employment in SAIL.
- Over the years, a large group of ancillary industries have also come up in the vicinity of Steel Plants. This has created opportunities for local unemployed persons for jobs and development of entrepreneurship.

- For jobs of temporary and intermittent nature, generally contractors deploy workmen from the local areas, which provide an opportunity for employment of local candidates of economically weaker section.
- Steel Townships developed by SAIL have the best of medical, education and civic facilities, benefits of which are being extended without any discrimination.
- SAIL has undertaken several initiatives for the socio-economic development of SCs/STs and other weaker sections of the society which are mainly as under:
 - Special Schools have been started exclusively for poor, under privileged children at five integrated steel plant locations. The facilities provided include free education, mid-day meals, uniforms (including shoes), text books, stationary items, school bag, water bottles and transportation in some cases.
 - No tuition fee is charged from SC/ST students (SAIL employees' wards or non-employees' wards) studying in the Company run schools.
 - Free medical health centres for poor have been set up at Bhilai, Durgapur, Rourkela, Bokaro, Burnpur (Gutgutpara) providing free medical consultation, medicines, etc. to the peripheral population mainly comprising of SC/ST and weaker sections of society.
 - SAIL plants have adopted tribal children. They are being provided free education, uniforms, textbooks, stationery, meals, boarding, lodging and medical facilities for their overall growth at residential hostels, such as Saranda Suan Chhatravas Kiriburu, Gyanodaya Hostel, Bhilai and an exclusive Gyan Jyoti Yojana for nearly extinct Birh or Tribe of Jharkhand.
 - For Skill Development and better employability, youth and women of peripheral villages have been provided vocational and specialised skill development training at various ITIs, Nursing and other vocational training institutes in the areas of Nursing, Physiotherapy, LMV Driving, Computers, Mobile repairing, Welder, Fitter and Electrician Training, Improved agriculture, Mushroom cultivation, Goatery, Poultry, Fishery, Piggery, Achar/Papad/Agarbati/Candle making, Screen printing, Handicrafts, Sericulture, Yarn Weaving, Tailoring, Sewing and embroidery, Gloves, Spices, Towels, Gunny-bags, Low-cost-Sanitary Napkins, Sweet Box, Soap, Smokeless chullah making, etc.
- Liaison Officers have been appointed as per Government instructions/guidelines for due compliance of the orders and instructions pertaining to reservation for SCs/STs/OBCs/PWD sat Plants/Units of SAIL.
- The Liaison Officer along with his/her subordinate staff reporting to him/her takes care of interest of SC/ST/OBC and the function of SC/ST/OBC cell is being carried out by them. A member belonging to SC/ST community is associated in all DPCs/Selection Committees. A sufficiently senior level officer of SC/ST/OBC category is nominated in Recruitment Board / Selection Committees.
- Internal workshops for Liaison Officers for SC/ST/OBC and other dealing officers of SAIL plants/units are conducted through an internal/external expert to keep them updated on the reservation policy for SC/ST/OBCs and other related matters.

- Plants/Units of SAIL have SC/ST Employees' Welfare Associations which conduct regular meetings with Liaison Officers on implementation of reservation policy and other issues. In addition, an Apex level umbrella body namely SAIL SC/ST Employees Federation also exists in SAIL to represent the issues of SC/ST Employees in a coordinated manner.

16.3 Rashtriya Ispat Nigam Ltd. (RINL)

As on 31.12.2024, the total manpower of RINL is 12,338 comprising of 1,889 SCs (15.31%), 993 STs (8.05%) and 2796 OBCs (22.66%).

"Grants under Dr B R Ambedkar Merit Recognition Scheme for Professional Courses – SC and ST categories"- RINL Grants are meant exclusively for the children of employees belonging to Scheduled Castes and Scheduled Tribes. Under this scheme, an award of Rs. 1500/- per month for full duration of the course is given to those children of employees who qualify 12th standard or intermediate exam and seek admission in Degree courses in Engineering / Architecture / Medical / Veterinary / Dentistry / Agricultural Sciences / Pharmacy/Law. A total of 8 such awards are given to children of SC employees and 4 such awards to children of ST employees.

16.4 NMDC Ltd.

The total number of employees as on 31.12.2024 in NMDC is 5701. Out of which 818 belonged to Scheduled Castes (14.34%), 1475 belonged to Scheduled Tribes (25.8%), 1226 belonged to Backward class (21.5%) As a policy, efforts are made to fill any shortfall in the next years on a continuous basis and the Company has able to fill the reserved vacancies so far. Liaison Officers have also been appointed as per Presidential Directives at corporate level and Projects. A member belonging to SC / ST is associated in all selection interviews / DPCs. Regular workshop is also being held for liaison officers of SC/ST and OBC. Regular meetings are also held with SC/ST welfare Associations of the units and their apex body at corporate level.

16.5 NMDC Steel Limited(NSL)

The total number of employees as on 31.12.2024 in NMDC Steel limited is 1056. Out of which 41 belonged to Scheduled Castes (3.88%), 453 belonged to Scheduled Tribes (42.89%), 231 belonged to Backward class (21.87%) . The on-roll workmen recruited at NMDC Steel Limited, under C.G State Ideal Rehabilitation Policy 2007 (as Amended) in NMDC Steel Ltd, hence reservation point maintained as per employment provided to land loser. However as a policy, efforts are made to fill any shortfall in the next years on a continuous basis and the Company has able to fill the reserved vacancies so far. Liaison Officers have also been appointed as per Presidential Directives at corporate level and Projects. A member belonging to SC / ST is associated in all selection interviews / DPCs. Regular workshop is also being held for liaison officers of SC/ST and OBC. Regular meetings are also held with SC/ST welfare Associations of the units and their apex body at corporate level.

16.6 MOIL Ltd.

The total manpower as on 31.12.2024 is 5330 (male 4510, female 820) out of which 1022 belong to Scheduled Castes (19.17%), 1364 to Scheduled Tribes (25.59%), 2011 to OBCs (37.73%) and 9 to EWS (0.17%).

Welfare Activities

Some of the Welfare Schemes being implemented by MOIL for the benefit of the employees as well as people residing in the adjacent areas of Mines which are situated in the remote areas are as follows:-

- Residential quarters have been constructed and allotted to majority of the employees.
- Providing adequate supply of drinking water to the employees residing in the mine Colonies.
- Provisions of electricity at concessional rate.
- Provision of Hospitals/Health Care Centres.
- Assistance to Primary Schools for imparting free education to wards of weaker sections. School buses are provided at all the Mines so as to take children to nearby areas for High School/College.
- Providing financial aid, stationery, books etc. to the school adjacent to the mining areas.
- Organizing training classes for self-employment scheme.
- Other welfare measures for the development and upliftment of tribal women such as conducting sewing classes, adult literacy classes, medical health check-up programmes, propagating such other programmes by display of posters, notices and banners, leprosy awareness programmes, etc.

16.7 MECON Ltd.

As on 31.12.2024, out of 1026 employees on the strength of the Company, 226 employees belong to SC (22.02%), 101 belong to ST (9.84%), 140 belong to OBC (13.64%) and 10 belong to EWS (0.97%). MECON is fully aware of its social responsibilities for development and welfare of weaker section of the Society. MECON has adopted adequate measures for safeguarding their interests and welfare.

16.8 MSTC Ltd.

- The total manpower as on 31-12-2024 was 301 out of which 47 belong to Scheduled Castes (15.61%), 16 to Scheduled Tribes (5.33%) and 82 to OBCs (27.24%) and 09 belong to Person with Disability (PwD) (2.99%).
- The Government instructions pertaining to the policies and procedures, issued from time to time in regard to reservation, relaxation, concession, etc. for the SC/ST/OBC/PwD candidates are duly observed. The directives in matters concerning recruitment and promotion regarding the weaker sections are duly complied with.
- During the year 2024-25, up to 31-12-2024, 42 SC and all ST, 77 OBC and 8 PwD employees of the Company, were sponsored for in-house and Institutional training programmes. In addition, all possible cooperation and assistance is provided to the MSTC SC/ST Employees' Council, which functions primarily to safeguard the interests of the reserved section of employees of the Company.

16.9 KIOCL Ltd.

The total number of employees in KIOCL as on 31.12.2024 is 540, out of which 86 persons belong to Scheduled Caste (15.93%), 42 persons belong to Scheduled Tribe (7.78%), 90 persons belong to Other Backward Classes (16.67%) and 1 person belongs to EWS (0.19%). Besides, there are 22 Women (4.07%) and 11 Divyang Persons (2.03%).

Welfare Measures

The Company has setup full-fledged facilities at Mangaluru by establishing a modern township, hospital, recreation facilities etc. 10% of type "A" and "B" quarters and 5% of "C" & "D" type quarters are reserved for SC/ST employees.

Recruitment

During the Financial Year 2024-25 (as on 31st December, 2024), 4 Vacancies through Lateral Entry was filled up in the Groups 'A'. However, there is no recruitment in any of the groups 'B', 'C', 'D' & D(S) (Supervisors and Non-Executives).

Promotions

During the Financial Year 2024-2025 (As on 31st December, 2024), 85 employees put together in all Groups 'A' 'B', 'C', 'D' were promoted, out of which 11 employees belong to SC category and 10 employees belong to ST category.

Periodical Meetings with SC/ST Representatives

There is a regular interaction with the Management and SC/ST Welfare Association at Kudremukh, Mangaluru and Bengaluru. The grievances of SC/ST employees are discussed and appropriate action is taken to redress their grievances.

KIOCL under its CSR Program, every year taking up projects for upliftment of poor & weaker section of the society especially people living in the vicinity of its projects except for FY 2024-25 due to poor financial condition of the Company.

KIOCL is also constructing/renovating toilets, schools in backward villages for the benefit of students who belong to economically weaker section of the society.

CHAPTER – XVII

VIGILANCE

17.1 Activities of Vigilance Division of the Ministry of Steel

The Vigilance Division of the Ministry is headed by a part time Chief Vigilance Officer (CVO) at the level of Joint Secretary or above appointed on the advice of the Central Vigilance Commission (CVC). The CVO with a Director, an Under Secretary and supporting staff reports to the Secretary, Steel in all vigilance matters under the ambit of the Ministry. The Vigilance Unit is, inter-alia, responsible for the following activities in respect of the Ministry of Steel and the CPSEs under its administrative control:

- Scrutiny of vigilance complaints and initiation of appropriate investigation measures;
- Furnishing comments / factual reports of the Ministry to the Central Vigilance Commission (CVC) on the enquiry / investigation reports involving Board Level Officers, wherever required;
- Obtaining first and second stage advice of the CVC, wherever necessary;
- Obtaining Vigilance Clearance in respect of Board Level Officers for their appointment, confirmation, extension of service, etc.;
- Ensuring rotation of officials / officers holding the sensitive posts, as per CVC guidelines; and
- Sending periodical reports / returns to CVC/DoPT.

The Vigilance Departments in each CPSEs under the Ministry are headed by a full time Chief Vigilance Officer appointed by the Government of India. The Vigilance Division in the Ministry of Steel monitors the incumbency position of CVOs and regularly update the same to DoPT. 3 new CVOs in MECON, MOIL and MSTC were appointed during the year 2024.

The Ministry reviewed the vigilance activities in the Steel CPSEs through meetings and monthly checklist, periodic returns and statements sent by the CVOs. Besides, Ministry also reviewed the test cases and wherever necessary, held discussions with the CVOs of concerned CPSEs. Circulars containing instructions and guidelines on different aspects of vigilance management received from the CVC, etc. are also suitably communicated to all concerned for compliance.

During the period from 01.04.2024 to 31.12.2024, the Vigilance Division received 34 complaints from various sources. Out of the 34 complaints received, 25 complaints have been suitably disposed off and appropriate actions in respect of remaining 09 complaints/ references have been initiated. Besides, factual reports / comments in 02 cases were furnished to the CVC and

advise from Commission suitably implemented. Total 21 Vigilance Clearance proposals in respect of Board Level officers were sent to the CVC during the period from 01.04.2024 to 31.12.2024.

This Ministry also observed Vigilance Awareness Week 2024 from 28.10.2024 to 03.11.2024. On this occasion, Integrity Pledge was administered to all the employees of the Ministry. Apart from displaying banners / posters at prominent locations in the office premise, a Quiz Competition, Slogan Writing Competition and an Essay Writing Competition on a Topic "The Role of Integrity in Governance: Building trust for sustainable development" were organized. The CPSEs under the Ministry of Steel also observed Vigilance Awareness Week during the period.

17.2 Steel Authority of India Ltd. (SAIL)

SAIL Vigilance emphasizes on preventive vigilance through Surprise Checks, Scrutiny of Files, continuous examination / review of existing systems and suggests system improvements thereby increasing organizational effectiveness. There is a thrust on leveraging technology to enhance transparency in the organization. Following activities were undertaken by SAIL Vigilance during the period April, 24 – December, 2024.

Details of the Complaints received and Disposed: A total of 504 complaints were received in SAIL Vigilance from April to December 2024, of which 487 have been disposed.

Training Programmes organized by SAIL Vigilance: A total of 169 training/awareness programme/workshops involving 3405 participants were organized at various plants and units of SAIL, for enhancing awareness on System and Procedures followed in SAIL. These trainings include 14 dedicated two-day Preventive Vigilance programs wherein a total of 268 Executives have been covered.

Vigilance Awareness Week 2024: Vigilance Awareness Week was observed in SAIL during 28th October to 4th November 2024. The week started with administering the Integrity pledge and reading out of messages of dignitaries on 28th October 2024 at SAIL Corporate Office as well as all Plants/Units of SAIL. During the week, workshops/ sensitization programmes, anti-corruption march / walkathon, Gramsabhas, customers meet, events like quiz, essay, slogan & drawing/poster, debate competition were organized for SAIL employees and their families.

As outreach measures, various events like Speech/Oratory competition, Poster/Drawing competition, Essay/Slogan competition, inter school debate competition, Quiz competition, were organized across various Plants/Units locations of SAIL. The activities conducted during the week were posted on social media like twitter handle, instagram and facebook account of SAIL for wider publicity. During the week, employees, their families, students, customers, vendors etc were encouraged to take E-pledge.

As a precursor to Vigilance Awareness Week 2024, a Two-day workshop on the topic '360° Vigilance: Preventive Vigilance Strategies, Proactive Vigilance, Investigation Techniques & Complaint Management' was organized by SAIL vigilance at MTI, Ranchi on 4th-5th October, 2024. The function was inaugurated by Vigilance Commissioner Shri A.S. Rajeev and attended by senior officials of CVC, SAIL and MECON. On the inaugural day of the workshop, the book "DOs and DON'Ts" in printed form and the e-magazine "Preventive Measures" were launched by the Vigilance Commissioner.

A Compendium of Case studies of vigilance cases of the recent times was also launched during the VAW 2024.

A Talk on 'Cyber hygiene & Security' by subject matter expert Shri Mukesh Mangal, ITS, DDG, DoT was organized at Corporate Office during VAW 2024.

Thrust Areas of SAIL Vigilance

The Thrust Areas of SAIL Vigilance for the calendar year 2024 was:

- Scrutiny of cases in which more than one Repeat Order has been placed.
- Scrutiny of cases where Work Order has been placed on Single Tender Basis but executed by a sub-contractor:
 - Scrutiny of Asset Registers and Land Records.
 - Scrutiny of educational qualifications / degrees w.r.t. promotion cases where extra marks have been awarded due to higher qualification.
 - Scrutiny of Bill Payments against Performance Based Items.

Preventive Checks: A total of 1929 periodic checks including file scrutiny and Joint Checks were conducted in vulnerable areas of different Plants / Units of SAIL, out of which 31 checks were taken up for detailed investigation while preventive / system improvement recommendations were made in 375 cases.

System Improvement Projects: During the year 2024, a total of 14 System Improvements Projects (SIPs) were undertaken at different Plants/units of SAIL after identifying concern areas.

Intensive Examinations: During the year 2024, a total of 16 cases were taken up for Intensive Examination at different plants / units. During Intensive Examination, high value procurement / contracts were scrutinized comprehensively and necessary recommendations were forwarded to concerned departments for implementing suggestions for improvement.

ACVOs Meet: 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.

LEO workshops: With a focus on capacity building and enhancing horizon of Vigilance officers and to strengthen the Preventive Vigilance mechanism in SAIL, CVO (SAIL) advised during the Corporate Vigilance monthly review meeting held in October, 2022 that LEO (Learning from each other) workshops / seminars should be organized periodically / regular basis for Vigilance officers.

In pursuance to the advice of CVO, 4 LEO workshops have been conducted by SAIL Vigilance to date. The 3rd workshop, titled '*Receipt, Sampling, Testing, Acceptance, and Accounting of Ferro Alloys*', was held at ISP on May 20–21, 2024. Subsequently, the 4th LEO workshop, on the topic '*Preparation of Charge Sheets*', was organized at RSP on December 13–14, 2024. Participants attended the LEO workshops were Vigilance Officers from various Units of SAIL Vigilance and officers from other organizations.

During the period December 2024 – March 2025, SAIL Vigilance would continue its Preventive Vigilance efforts such as undertaking preventive checks, organizing training / awareness programs etc.

17.3 Rashtriya Ispat Nigam Ltd. (RINL)

Vigilance Department conducted studies on the Systems and Procedures, being followed in procurements, sale of goods & contracts in all areas in a structured manner and suggested systemic improvements wherever necessitated. Intensive examinations of major contracts / purchase orders were conducted and a set of Audit Paras / Internal Audit Reports were verified for vigilance angle. Officers occupying sensitive posts beyond their tenure were identified and ensured their transfer. Surveillance, Checks, random scrutiny of bills etc. were made. Regular Vigilance Awareness sessions are conducted at Centre for HRD to create awareness amongst the employees and other stakeholders on preventive vigilance, as a functional tool for Management to usher in Fairness and Equity.

IT initiatives like e-proposals, e-Tour for Air travel management, Online Medical Services, Online Quarter allotment system, supplementing the existing IT services like e-Auction, e-Reverse auction and 100% e-Payment etc.

The following activities were undertaken to promote Transparency and Integrity:

- Conducted 146 surveillance checks which includes 14 Quality checks, 8 checks on Contract provisions, 4 Inspections at HQ/Out station Marketing Offices and 4 periodic surprise checks on medical services.
- Organized sensitization sessions on Preventive Vigilance to bring awareness amongst the employees and 466 employees covered in this program.
- Scrutinized 25 files which includes System studies, Single Tender / Nomination cases, Emergency procurements & High value contracts for improving procedures, rules, policies, guidelines etc. were taken up and Vigilance observations/ recommendations were communicated to the concerned Departments. 765 Annual property returns were scrutinized. In addition to regular tasks, Random Surprise checks in the departments conducted on weekly basis.
- Special study is made on Biometric Attendance Recording System(BARS), Implementation of Procurement & Contract Procedure (PCP).
- 37 Officers who were due for rotation as on 01.04.2024 have been transferred and Vigilance Dept. contributed and assisted in company's policy for transfer of long standing officers in Corporate Offices in order to improve transparency.
- As a prelude to Vigilance Awareness Week (VAW) 2024, a three-month campaign was undertaken from 16th Aug.'24 to 15th Nov.'24. During the campaign, Six (06) two-day sessions were conducted on Ethics & Governance, Conduct rules, Systems & Procedures, Cyber Hygiene & Security and Procurement as Capacity building program and 239 employees sensitized. 11 long pending Systemic Improvements as suggested by Vigilance were followed up and implemented during this period.

- **Observance of Vigilance Awareness Week – 2024** was done vigorously with the theme **“Culture of Integrity for Nations’s Prosperity”**. Several programs viz. Quiz, Pledge taking, display of posters, Essay writing & Slogan Competitions and Gram Sabha etc., were organized involving huge participation of employees, their dependents, school children and other stake holders.

The following activities are planned to be taken up during Jan-Mar,2025 to promote Transparency and Integrity:

- To conduct 14 surveillance checks which includes 6 Quality checks, 4 checks on Contract provisions, 1 Inspection at HQ/Out station Marketing Offices and 1 periodic surprise check on medical services and 3 checking Compliance with Contract provisions.
- To organize 3 physical sessions on Preventive Vigilance covering 120 employees.
- To Scrutinize 135 Annual Property returns and 8 files which includes 3 PQC study, 5 Scrutiny of Proprietary / Single Tender / Nomination cases to check the compliance with the rules / procedures and for improving Systems, Procedures, Rules and Guidelines etc.

17.4 NMDC Ltd.

NMDC Vigilance Department has significantly contributed to enhancing transparency and operational efficiency. This achievement has been realized through the proactive implementation of preventive vigilance measures and the introduction of system improvements. Key activities undertaken during the period of April, 2024 to December, 2024 include:

- (i) **Preventive Checks:** A total of 163 preventive checks were conducted during the last nine months of the fiscal year, encompassing:
 - File Studies- 59.
 - Surprise Inspections-31.
 - Regular Inspections-66.
 - Audit Paras-2.
 - CTEs- 5.

Further, additional checks and inspections are planned for the remaining quarter of the fiscal year also.
- (ii) **Complaint Handling:** NMDC Limited received 135 complaints between April, 2024 and December 2024, all of which were addressed in accordance with CVC guidelines.
- (iii) **Training Programs:** The Vigilance Department organized training programs for employees at different locations, including the head office. These programs covered important topics like:
 - Contract Management & Manuals for procurement of Goods & Works released by Department of Expenditure, Ministry of Finance.
 - Cyber Hygiene and Security

- CDA Rules & Disciplinary Proceedings
- GeM Portal & its updates
- Gender Sensitization Programs
- Ethics & Values
- Other relevant topics

Integrity Pact: To ensure transparency and ethical practices, all procurements of goods, services, and works with an estimated value of ₹1 crore or more are covered under the Integrity Pact framework.

Quarterly Review Meetings: Regular quarterly review meetings were held to evaluate the progress of vigilance activities, address pending issues, and plan the way forward. These meetings also facilitated knowledge-sharing among vigilance officers.

Structured Meetings: The Vigilance Department regularly held meetings to review its work with the Management. These meetings aimed to appraise the effectiveness of its current activities in preventing and detecting lapses, address pending issues & to plan future strategies to enhance vigilance and improve the overall integrity within the organization.

E-Platform Initiatives: The Vigilance Department promoted the use of e-procurement platforms for tendering and encouraged the increased adoption of the GeM portal to enhance transparency and efficiency.

10 numbers of System Improvements were suggested as a part of preventive vigilance activities during the said period.

The release of the Vigilance Magazine '**Subodh**' facilitated the dissemination of knowledge across all units.

Online Vigilance Portal: NMDC Ltd. has been working in the online vigilance portal, which facilitates almost all major day to day activities of the Department.

Vigilance Awareness Week: The Vigilance Awareness Week 2024 was observed with enthusiasm, featuring activities, training, competitions, and outreach programs focused on anti-corruption initiatives and fostering a culture of integrity. Integrity pledges were administered, and outstanding participants were recognized during the concluding ceremony.

17.5 NMDC Steel Ltd.(NSL)

The Vigilance Department of NMDC Steel Limited(NSL) has played an important role in enhancing transparency and efficiency. This has been achieved through the implementation of preventive vigilance measures and suggesting system improvements. Key activities during April, 2024 to December, 2024 undertaken includes:

Preventive Checks: A total of 48 preventive checks were conducted during the last nine months of the fiscal year, encompassing:

- File Studies- 14
- Surprise Inspections- 14

- Regular Inspections- 15
- Audit Paras- 2
- CTEs- 3

Further, additional checks and inspections are planned for the remaining quarter of the fiscal year.

Complaint Handling: NMDC Steel Limited received 36 complaints between April, 2024 and December 2024, all of which were addressed in accordance with CVC guidelines.

Training Programs: The Vigilance Department suggested and facilitated training sessions organized by the Human Resources Department, covering various critical areas:

- SBD, DOP, SOP, and Contract Management
- Cyber Hygiene and Security
- Procurement of Goods
- Conduct Rules System Improvements

Integrity Pact: To ensure transparency and ethical practices, all procurements of goods, services, and works with an estimated value of ₹1 crore or more are covered under the Integrity Pact framework.

Quarterly Review Meetings: Regular quarterly review meetings were held to evaluate the progress of vigilance activities, address pending issues, and plan the way forward. These meetings also facilitated knowledge-sharing among vigilance officers.

E-Platform Initiatives: The Vigilance Department promoted the use of e-procurement platforms for tendering and encouraged the increased adoption of the GeM portal to enhance transparency and efficiency.

Vigilance Awareness Week: The Vigilance Awareness Week 2024 was observed with enthusiasm, featuring activities, training, competitions, and outreach programs focused on anti-corruption initiatives and fostering a culture of integrity. Integrity pledges were administered, and outstanding participants were recognized during the concluding ceremony.

17.6 MOIL Ltd.

The functioning of Vigilance Department includes preventive vigilance. The main thrust is on systems improvement in the organization by issuing vigilance advisories for streamlining and developing procedures in the area prone to Vigilance. The objective is to ensure that executives can confidently take the decisions without any fear so as to improve the efficiency and effectiveness and expediting decision making by mean of productivity can be enhanced. Some of the important activities of the Vigilance Department are as under: -

ISO 9001-2015 Certification: Vigilance Department has obtained ISO-9001:2015 certificate by the International Certification Services Pvt. Ltd., The Certificate is valid till 20th May, 2026.

Inspections: 54 periodic, 20 surprise and 06 CTE type inspections have been carried out. Based on the inspections advisories have been issued to management.(during calendar year 2024).

Complaint handling: Vigilance Department has processed total 53 complaints including 5 complaints referred by Ministry up to 31.12.2024 (during calendar year 2024).

Scrutiny of procedures and systems: Vigilance Department has studied the procedure related to purchase, bidding process etc. and on the basis of examination, advisories have been issued to management for corrective action and system improvement.

Mobile App 'Vigilance MOIL': Mobile app Vigilance MOIL developed by MOIL Vigilance with in-house team is available at Google App store for free downloading and making complaint from any place at any time.

Toll free number: A toll free number 18002333606 has been provided for giving vigilance related assistance to general public.

Structured Meeting with Management: As per the instructions of CVC and Ministry of Steel, 3 structured meetings of Vigilance Department with MOIL Management in presence of CMD, MOIL have been done during the year 2024 in which issues related to Status of Systemic improvement advisories issued by Vigilance and other agenda items were discussed.

Review of Vigilance Working by the MOIL Board: As per the instructions of CVC manual, review of the vigilance working was done by the MOIL Board on 30.07.2024 in which performance and action taken by vigilance department was projected to the board by CVO. The board has specifically advised about training to executives on vigilance prone area, scrutiny of GeM procurement cases for restrictive eligibility criteria, analysis of complaints on the basis of various parameters etc. Necessary action has been taken by Vigilance Department.

Leveraging Technology: With reference to CVC's circular, Vigilance Department emphasized on the effective use of website and leveraging technology in discharge of regulatory, enforcement activities and dealing with complaints. Following action has been taken by Vigilance Department and MOIL Management:

- On line portal for customer.
- Online Bill tracking system has been put into practice.
- Digitization of records.
- Installation of Biometric attendance system at Mines and Plants – linking of Biometric attendance system with SAP to salary generation.
- Online system for approval of Competent Authority for acquisition of immovable property on the lines of APR in FLM.

Updation of Manuals: 4 manuals, i.e., HR Manual, Purchase & Contract Manual, Vigilance Manual and Account Manual are updated and available on MOIL website/intranet.

Training Programs: Vigilance Department conducted 14 training programs during the year on Procurement Process, Conduct Rules, Cyber Security, Ethics & Governance and System & Procedure at the HO & Mines covering total 436 employees.(during calendar year 2024).

Job Rotation: Sensitive posts have been identified for rotation of officials working on sensitive posts for more than 3 years and are pursued with the management. Out of 68 posts identified and all are rotated.

System Improvement: As an outcome of investigations relating to complaints, study, inspection etc., about 51 advisories and suggestions were given to the management for system improvement in different areas of working. (during calendar year 2024).

Vigilance Awareness Week: Vigilance Awareness Week was observed from 28.10.2024 to 03.11.2024 at all Mines/Offices of MOIL Limited in which following activities were done in accordance with CVC guidelines with the theme “**Culture of Integrity for Nation’s Prosperity**”.

- Vimochan of annual magazine **Shuchita** during inaugural function of Vigilance Awareness Week.
- Walkathon for vigilance awareness amongst general public.
- Capacity building programme was organised under preventive vigilance training program covering 5 topics (i.e. Procurement Process, Conduct Rules, Cyber Security, Ethics & Governance and System & Procedure) as prescribed by CVC.
- Essay/Slogan/quiz competition organised for employees, their wards, student schools and colleges for spreading vigilance awareness.
- Organising gram sabhas for vigilance awareness.

As per CVC guidelines Preventive Vigilance measures cum housekeeping activities were taken as precursor to VAW 2024 and a three-month campaign (from 16.08.2024 to 15.11.2024) was organised in which action regarding following items were taken.

- Capacity Building Program:-** Total 140 executives have received refresher/ fresh inductees training on 5 topics (i.e. Procurement Process, Conduct Rules, Cyber Security, Ethics & Governance and System & Procedure) as directed CVC. Total 5 offline/online Training programs organized during the campaign period.
- Vigilance cases** for last 5 years were analysed to identify the areas vulnerable to corruption. The status of implementation of systemic improvements to address these issues as recommended by vigilance department was checked during the campaign. All systemic improvements suggested by the Central Vigilance Commission have been implemented.
- Dynamic Digital Presence:-** Regular maintenance and updation of website being done on regular basis. System has been introduced for updation and review of website.

17.7 MECON Ltd.

Vigilance Department of MECON is responsible for maintaining probity, integrity and a fearless working environment in the organization. Vigilance Department is issuing various systemic improvements, advisories with purpose to curb corruption, misconduct, negligence and unjust losses of the Organization with a purpose to make a transparent system so that officials can work confidently in decision making process. In this regard Vigilance Department of MECON has taken a number of initiatives, briefly mentioned below:-

- Vigilance Awareness Week-2024 was observed in all the offices of MECON from 28th October to 3rd November, 2024 in accordance with CVC’s communication Circular No. 09/08/24 dated 28.08.2024 with the theme “सत्यनिष्ठा की संस्कृति से राष्ट्र की समृद्धि” “**Culture of Integrity for Nation’s Prosperity**”. The Vigilance Awareness Week-2024 was commenced with Pledge Ceremony on 28th October, 2024 at 11.00 AM. Messages

received from dignitaries as well as that of the Central Vigilance Commission were also read out for employees.

- As per directive of CVC for Vigilance Awareness Week - 2024, various programs and outreach activities were organized by different offices of MECON viz. Ranchi, Delhi, Bangalore, Kolkata and Nagarnar etc. Prizes/ mementos were given to the winners of different competitions and speakers as well as dignitaries and few of the associated officials with purpose to make the officials aware about to Vigilance importance.
- Vigilance Walk combined with Run for Unity was also organized on the occasion of Rashtriya Ekta Diwas for employees at office. CMD, MECON & CVO, MECON administered the 'Rashtriya Ekta Pledge' in Hindi & English respectively on 30th October, 2024.
- Various preventive vigilance programs including capacity building training programs were organized / conducted by the Vigilance Department at various offices. In-house experts, as well as external experts, were invited to share their knowledge on various subjects, including "Ethics and Governance", "Cyber Hygiene and Security", "Quality Management System", "Procurement through GeM", "Conduct Rules", and "Preventive Vigilance in Project Management". An interactive session on "Vigilance Case Studies on PQ Criteria and Talks on Contractors' Bills" was also organized to sensitize employees. These programs were held at MECON's Ranchi, Delhi, Bangalore, Kolkata, and Mumbai offices, and were attended by employees of various grades. Additionally, capacity building programs were organized for fresh inductees to familiarize them with the organization's systems and procedures.
- Preventive Measures are being taken such as Surprise and Routine check, Scrutiny of Files, Scrutiny of Annual Property Returns, etc.
- Regular Structured Meeting of Vigilance with the Management is being conducted and issues related to Standardization of Bidding Documents, updation of organization's Procedures & Manuals, SOPs of various activities, departmental proceedings, prosecution sanction, and rotational transfer, systemic improvements etc. were discussed for implementation.
- MECON has signed Integrity Pact (IP) with 427 suppliers/ contractors.

17.8 MSTC Ltd.

The Vigilance Department at MSTC is headed by the Chief Vigilance Officer (CVO). The Vigilance Department plays a crucial role in preventing corruption and unethical practices within the organization, ensuring transparency, accountability, and adherence to ethical standards. It actively promotes a culture of integrity while enhancing operational efficiency by technology, training to employees, updation and compliance with the guidelines. The department is responsible for scrutiny of contracts, purchase orders, CSR activities, annual property returns, audit observations, surprise inspections, examination of bill payments, and coordinating with the CBI on the agreed list, and preparing a list of officers of doubtful integrity. It also identifies sensitive post and follow up for their timely rotation. Some of the key activities undertaken by the Vigilance Department during FY 2024-25 (up to December, 2024) are as follows:

- 30 complaints received, and 23 complaints disposed of including 2 complaints referred to by the Commission.
- 6 contracts/audit reports scrutinized.

- 4 Surprise Checks and 4 Regular Inspections were conducted.
- 1 CTE Type Inspection/Systems Study conducted.
- Based on vigilance activities 10 Systemic Improvements recommended to the management.
- Scrutiny of Property returns undertaken for more than 13.28% of total employees.

Training Programmes: One Vendor Meet was organized by Vigilance Department during Vigilance Awareness Week-2024. 17 Preventive Vigilance Training Sessions were organized through physical/online mode where more than 150 employees are covered. 10 Sensitization Programs conducted at various MSTC offices located at Vizag, Patna, Vadodara, Ranchi, Trivandrum, Chennai, Jaipur, Mumbai, Bengaluru and Lucknow etc.

- In accordance with the CVC instructions, as a prelude to VAW-2024, a three-month campaign was undertaken successfully from 16th Aug., to 15th Nov., 2024 focusing 5 preventive vigilance areas.

VIGILANCE AWARENESS WEEK-2024: MSTC Limited celebrated Vigilance Awareness Week - 2024 from 28th October to 3rd November, 2024, in line with the theme “सत्यनिष्ठा की संस्कृति से राष्ट्र की समृद्धि” / “Culture of Integrity for Nation's Prosperity”. A series of activities highlighted the organization's commitment to promoting transparency and ethical governance. Organization website, social media was being extensively used for the wider dissemination of the observance of Vigilance Awareness Week on the theme for the employees as well as public. Leaflets were distributed for public awareness, inspiring them to take Integrity Pledge. 6th edition of MSTC's in house Vigilance Magazine “Jaagrat” was published on this occasion containing various articles/poems written by MSTC's employees based on Vigilance Awareness Week theme. The messages received from the Hon'ble President, Vice-President, Prime Minister, and CVC were also published in the Vigilance Corner of the organization website. Skit Play, Walkathon and Candle-Light Vigil March on the theme was organized to spread awareness amongst the employees of Corporate Office and Eastern Regional Office. Customer Grievance Redressal Camps were organised at various offices of MSTC. Competitions such as Elocution, Essay writing, Slogan writing, Painting, Rangoli making and Quiz competitions involving 169 MSTC employees and their wards and School & College students of Kolkata were also organized.



Candle March during Vigilance Awareness Week

17.9 KIOCL Ltd.

Preventive vigilance has been the thrust area of Vigilance Department in KIOCL in recent years and the same has received focused attention during the year. A climate of preventive vigilance is generated to sensitize officials at all levels about the ill effects of corruption and malpractices. Regular Structured Meeting of Vigilance with the Management is being conducted and issues related to Systemic Improvements, e-Governance, Leveraging Technology, Tender Management, Award of Works, rotation of officers holding sensitive posts, capacity building programs, Updation of procurement manuals, digitization of documents, implementation of Integrity Pact etc., have been discussed. During the period January, 2024 to December, 2024, 4 structured meetings have been held with Management and all senior officials of the Company on quarterly basis.

The Vigilance Department is certified for compliance to ISO certification 9001-2015 standards to ensure continuous improvement in Quality Management System.

e-Procurement is in vogue and the threshold value for this is fixed at ₹ 2 Lakhs and above. During the year, 97.76% of contracts by value are covered under this. All payments are being made through electronic mode.

During the year, 7 work/purchase/sale orders have been issued incorporating Integrity Pact Clause, covering 81.28% of contracts by value. No complaints have been received under Integrity Pact.

54 Scrutiny/examinations, 24 General inspections, 14 Surprise checks and 11 CTE type inspections were carried out during the period and corrective actions, if any were suggested. Necessary action is taken as regards to the complaints received during the year.

Vigilance Awareness Week-2024 was observed from 28th October, 2024 to 3rd November, 2024 at all the locations/offices of KIOCL Limited. The theme of this year's Vigilance Awareness week was **"Culture of Integrity for Nation's Prosperity"/"सत्यनिष्ठा की संस्कृति से राष्ट्र की समृद्धि"**. Walkathons were organized for creating Vigilance Awareness at Corporate Office, Bengaluru and Plant at Mangaluru. Workshops, Training courses, Guest Lectures, Sensitization programs were conducted in observance of the Vigilance Awareness Week. Essay, slogan writing and quiz competitions were conducted among the employees, school and college students. On this occasion, the importance of observing the Vigilance Awareness Week and steps taken to strengthen vigilance activities were highlighted.

- During the year, 18 trainings/workshops/sensitization programs related to Vigilance were attended by officers including Vigilance Officers totaling 2155 man hours.
- As part of preventive vigilance and capacity building, Vigilance Department has taken a proactive role and is organizing training sessions to cater to need of other Departments of KIOCL.

CHAPTER – XVIII

CENTRALISED PUBLIC GRIEVANCES REDRESSAL AND MONITORING SYSTEM AND SPECIAL CAMPAIGN FOR DISPOSAL OF PENDING MATTERS

18.1 Centralized Public Grievance Redressal and Monitoring System (CPGRAMS) has been implemented for facilitating quick redressal of public grievances in the Ministry and its CPSEs. The CPGRAMS, is an online web-enabled system over NICNET developed by NIC in association with the Department of Administrative Reforms and Public Grievances (DARPG) with an objective of speedy redressal and effective monitoring of grievances by Ministries/Departments/ Organisations of Government of India. The entire life cycle of the grievance redressal operation is (i) Lodging of the grievance by a citizen, (ii) Acknowledgement of acceptance of grievance by organization, (iii) Assessment of grievance regarding follow up action, (iv) Forwarding and transfer, (v) Reminders and clarification and (vi) Disposal of the case.

The details of Grievances dealt with in the CPGRAMs for the Period from 1.4.2024 to 31.12.2024 is as under:-

Ministry/CPSE	Outstanding as on 01.04.2024	Received during 01.04.2024 to 31.12.2024	Disposed off during 01.04.2024 to 31.12.2024	Pending on 31.12.2024
Ministry of Steel	84	863	805	58
SAIL	36	414	426	24
RINL	5	77	78	04
NMDC Ltd.	2	67	68	01
NMDC Steel Ltd.	0	08	07	01
MECON Ltd.	1	22	21	02
MOIL Ltd.	0	11	10	1
KIOCL Ltd.	0	10	09	1
MSTC Ltd.	0	05	05	0

18.2 Steel Authority of India Ltd. (SAIL)

Effective internal grievances redressal machinery has been evolved and established in SAIL Plants and units for employees.

SAIL Plants/Units are maintaining grievance handling system and employees are given an opportunity at every stage to raise grievances relating to service matters like wage irregularities, working conditions, transfers, leave, work assignments and welfare amenities etc. Majority of grievances are redressed informally in view of the participative nature of environment existing in the steel plants. The system is comprehensive, simple and flexible and has proved effective in promoting harmonious relationship between Employees and Management.

18.3 Rashtriya Ispat Nigam Ltd. (RINL)

A structured Grievance Handling System is in place at RINL; comprising of separate mechanism for redressal of grievances of Executive and Non-Executive employees respectively. In the formal Grievance Redressal Procedure for non-executives, a workers' representative is present in the committee. Further, grievance handling system has a fixed time frame to redress the grievances. A senior officer at the level of General Manager is designated as Public Grievance Officer to deal with the public grievances.

18.4 NMDC Ltd.

The grievance redressal machinery in NMDC is headed by Executive Director in the Head Office who is also the nodal officer for monitoring the grievance redressal machinery and by Head of Personnel in the production Projects. The machinery is working satisfactorily. A link to the Government of India's portal for Public Grievances has been provided in the home page of NMDC's website for registering grievances. As and when any public grievance (including in the press/Social Media) is received, the same is promptly attended to.

NMDC Steel Ltd. (NSL)

The Public Grievance Redressal Machinery at NMDC Steel Limited is headed by the Head of the Corporate Personnel Department, who also serves as the Grievance Redressal Officer of the company and monitors the CPGRAMS portal. He is assisted by the officers of the Personnel Department.

Grievances can be lodged by aggrieved individuals in CPGRAM Portal. They are then immediately referred to the concerned Department, and the response is shared with the person who raised the query at the earliest opportunity.

For internal employees, SC/ST/OBC employees can approach the Liaison Officers for the redressal of their grievances. The Employee's Welfare Associations also raise issues related to employees with the management for resolution. Additionally, whenever the CMD or Directors of the company visit the NSL, they invariably hold meetings with the associations/unions to address any grievances.

18.5 MOIL Ltd.

The redressal of grievance machinery in MOIL consists of one Grievance Officer nominated for at each Unit / Mine /Head Office. The Nodal Officer nominated at Head Office co-ordinates with the Grievance Officers at the Unit / Mine /Head Office for their effective performance. Monthly/quarterly grievances are reviewed and dealt by designated Public grievance officers at mines and

corporate office and disposed off with stipulated period. The data related to grievances at the units are submitted by unit grievance Officers in monthly/quarterly returns to the Head Office.

18.6 MECON Ltd.

By and large MECON does not have dealings with the public in general. But any specific complaints relating to any kind of perceived injustice is treated as a grievance. Complaints from customers are taken very seriously and attended to.

MECON has nominated Nodal Officer under Centralized Public Grievances Redressal and Monitoring System (CPGRAMS) for public grievances and the name of Nodal Officer is published in the website of Ministry of Personnel, Public Grievances.

In MECON, there is a two-tier grievance procedure for redressal of grievance of its employees. A Grievance Advisory Committee consisting of representative of Executive and Non-Executive employees is operative to examine grievances of employees and submit recommendation for redressal. Further, there is a separate cell for redressal of grievances of SC/ST/OBC employees. At present, there is no staff grievance from any quarter. Generally, employees prefer to take up their issues / grievances through their elected representatives of MECON Employees Union (MEU) in respect of non-executive employees and MECON Executives Association (MEA) in respect of executive employees both of which are recognized by the Company.

18.7 MSTC Ltd.

MSTC has Public Grievance Redressal Cells. There are total 18 (eighteen) cells in Regions and Branches of the organisation and there is a Central Grievance Cell at Head Office. There is facility of online registration for lodging grievance on the Company's website **www.mstcindia.co.in**. MSTC has also implemented Centralized Public Grievance Redress and Monitoring System (CPGRAMS) for online receipt and disposal of public grievances so that grievance can be sorted out immediately and action taken. Action is taken to address and redress grievances received from outside and from staff of the organisation.

Apart from the Cells, a Grievance Committee is also constituted at Head Office. The Grievance Committee makes recommendations after examination of the grievances and comments obtained from the concerned department/Region/Branch. The Grievance Committee meets at periodical intervals to review the cases. The Centralized Public Grievance Redress and Monitoring System (CPGRAMS) and Public Grievance site of the Company are monitored regularly by the Head Office.

18.8 KIOCL Ltd.

KIOCL has a well-structured and multilayered Public Grievances Redressal Mechanism including Dispute Resolution Mechanism. The Public Redressal set up in KIOCL has been introduced right from the Corporate Office at Bengaluru to all the production units, project offices and liaison offices. Vendors & Stakeholders having complaints or grievances can interact with the organization through the following for Public Grievance / Dispute settlements: -

- Public Grievance Officers are nominated at all locations. The complainant can approach these officers in person or through written complaints or communicate through e-mail or contact on telephones.

- Vendors' meets are organized at regular intervals.

KIOCL, Limited has also framed a well-defined grievance redressal procedure which covers all the employees, both Executives and Non-Executives. Ever since its introduction, the scheme has been working satisfactorily though timely resolution of grievance. However, in view of the limited number of employees in the organization, the Grievances are easily identified and redressed at the root level itself.

The development of Sevottam Compliant Citizen's Charter has been put in place in the company's corporate website: **www.kiocltd.in**. Company has provided a linkage in its website to the portal of Centralized Public Grievance Redress and Monitoring System (CPGRAMS) of Department of Administrative Reforms & Public Grievances for lodging and redressal of grievances.

18.9 Special Campaign for Disposal of Pending Matters:

Ministry of Steel along with 7 CPSEs viz. SAIL, RINL, NMDC, MOIL, MECON, MSTC and KIOCL under the Ministry actively participated in the 'Special Campaign for Disposal of Pending matters' (SCDPM 4.0), held from 2nd October, 2024 to 31st October, 2024. During the campaign, 14496 sq. ft of space have been freed up by Ministry of Steel and its CPSEs from disposal of metallic and non-metallic scrap, paper and e-waste etc; 25380 physical files have been weeded out and 7139 e-files have been closed during campaign period. In addition, several pending PG appeals/ PG grievances, MPs references etc were settled. 387 Swachhta campaigns were carried out by the Ministry and its CPSEs pan-India.

DIVYANG AND STEEL

19.1 Ministry of Steel

The Ministry of Steel follows the Government's Rules with regard to the implementation of The Rights of Persons with Disabilities Act, 2016 (RPwD Act). As on 31.12.2024, six (6) persons [two (2) hearing handicapped (HH), one (1) visually handicapped (VH), three (3) orthopedically handicapped (OH)] with disabilities are employed in the Ministry of Steel.

19.2 Steel Authority of India Ltd. (SAIL)

- Provisions related to reservation for Persons with Disabilities in terms of RPwD Act, 2016 is followed at Plants/units of SAIL. SAIL has employed 772 persons with various disabilities.



Assitive Device distribution at Rourkela Steel Plant

- Continuous efforts have been made for barrier free environment at workplace for Persons with disabilities.
- SAIL extends free medical facility even to non-entitled brother or sister of an employee, if they are disabled and dependent on the employee.

- Various facilities for sports and cultural activities are provided exclusively for the disabled persons at plant locations. Separate playgrounds have been earmarked for the handicapped at some of the plant locations.

19.3 Rashtriya Ispat Nigam Ltd. (RINL)

- The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation), Act, 1995 has come into force with effect from 07-02-1996. RINL is earmarking stipulated percentage of posts in Group-A, B and C as per PwD Act-2016.
- As per the Act, RINL has been implementing reservation whenever recruitment is taken up. Concessions and relaxations are extended to PwDs like Upper Age Limit (10 years), Application fee Exemption, 10% relaxation in Qualification marks at par with SC/ST, 10% relaxation in marks in Selection Tests at par with SC/ST. Since the Act came into force, RINL has employed 214 persons with various disabilities (excluding 10 persons on merit).
- Facilities provided as per statute include: Identification of jobs, Post recruitment, and pre-promotion training, Providing Aids/Assistive devices, Accessibility and barrier free environment at work place, Preference in allotment of Company's quarters, Grievance redressal, Liaison Officer appointed for matters relating to Persons with Disabilities, Special Casual Leave and Preference in transfer/posting.
- Provided Ramp Way, Auditory Signal in the lifts of the building, Provision of a wheel-chair at the Reception Centre are some of actions taken up for the convenience of the differently-abled persons at different offices at main administrative building / corporate office.

19.4 NMDC Ltd.

NMDC being a Mining organization governed by the provisions of Mines Act and Rules and Regulations thereof and considering the safety factor, it is not possible to employ PwDs in jobs involving working in Mines / Plant. However, efforts are being made to induce PwDs in posts where field work is not involved and at present NMDC has 108 employees with disabilities.

NMDC has taken multiple steps for convenience for differently enabled persons visiting the company. Rampway, auditory signals in the lifts etc. are provided across all offices and projects. Employees in the projects who become disabled while in service are deployed in identified posts.

19.5 NMDC Steel Ltd.(NSL)

NMDC Steel Limited (NSL) being a Steel Manufacturing Organization governed by the provisions of Factories Act and Rules and Regulations thereof and considering the safety factor, it is not possible to employ PwDs in jobs involving working in Steel. However, efforts are being made to induce PwDs in posts where field work is not involved and at present NMDC Steel Limited has 12 employees with disabilities.

NSL has taken multiple steps for convenience for differently enabled persons visiting the company. Rampway, auditory signals in the lifts etc. are provided across all offices and projects. Employees in the projects who become disabled while in service are deployed in identified posts.

19.6 MOIL Ltd.

Facilities in line with Rights of Persons with Disabilities (RPWD) Act, 2016 are provided for the Divyang employees. At work place, employees have been provided welfare facilities for improving their service conditions, quality of life and social security. As on 31st December, 2024, MOIL has 17 employees belonging to PwD category.

Recruitment for identified posts for persons with disabilities is carried out through reservation, relaxation and concessions provided to persons with benchmark disability as per Government of India directives/ instructions. As far as possible, the person with disabilities is exempted from the rotational transfer policy/transfer. MOIL gives preference to the person with disabilities for providing them accessible accommodation in company's township.

19.7 MECON Ltd.

MECON has implemented the provisions of "The Rights of Persons with Disabilities Act, 2016". Total employment strength of MECON as on 31.12.2024 is 1026, out of which persons belonging to disabled / physically handicapped category in various posts is 11.

19.8 MSTC Ltd.

As on 31.12.2024, MSTC has 9 employees belonging to PwD category.

19.9 KIOCL Ltd.

As on 31st December 2024, KIOCL has 11 employees belonging to PwD category. Suitable provisions/modifications are made at the work place to meet the requirement of PwDs.

PROGRESSIVE USE OF HINDI

20.1 Introduction

Ministry of Steel has made considerable progress in the use of Hindi in official work during the year 2024-25 keeping in view the Annual Programme prepared and issued by the Department of Official Language (Ministry of Home Affairs) for implementation of the Official Language Policy of the Union.

The work related to the progressive use of Hindi in the Ministry is supervised by Joint Secretary level officer. Official Language Division under the direct charge of Joint Director (Official Language) looks after the work pertaining to implementation of Official Language Policy and Hindi Translation work. At present, it consists of one Joint Director, one Assistant Director, two Senior Translation Officers, two Junior Translation Officers, one PA, one Stenographer 'D' and other supporting staff.

20.1.1 Official Language Implementation Committee

There is one Official Language Implementation Committee working under the Chairmanship of Joint Secretary in-charge of official language in the Ministry. This Committee reviews the progress made in the use of Hindi in the Ministry and its Public Sector Undertakings. Meetings of the Committee are held regularly in each quarter every year. Three meetings of the Committee have been organized during the period under review. The progress of Hindi is reviewed in these meetings and remedial measures are suggested to achieve targets set by Department of Official Language.

20.1.2 Hindi Salahakar Samiti

Hindi Salahakar Samiti works under the Chairmanship of the Union Minister of Steel with the main objective to advise the Ministry with regard to progressive use of Hindi in its official work. The constitution of Hindi Salahakar Samiti is under progress.

20.1.3 Implementation of Section 3(3) of the Official Language Act, 1963

In pursuance of the Official Language Policy of the Government of India, all documents those covered under Section 3[3] of the Official Language Act, 1963 are prepared both in Hindi and English. In order to ensure correspondence with Central Government Offices located in Region "A", "B" and "C", in Hindi, various check points have been established in the Ministry.

20.1.4 Hindi Divas/Hindi Fortnight/Hindi Month

In order to encourage the officers/officials of the Ministry for using Hindi in their official work, appeals were issued by the Hon'ble Minister of Steel and Hon'ble Minister of State for Steel on 14th September, 2024 on the occasion of the Hindi Diwas. Hindi Fortnight was organized in the Ministry from 14th September, to 28th September, 2024. During this period, eight Hindi competitions were organized to create an atmosphere conducive to the use of Hindi in the official work. A good number of officers/officials took part in these competitions with great zeal and won the cash prizes.

20.1.5 Meetings of Monitoring Committee for Official Language Implementation in CPSEs

A Monitoring Committee for Official Language Implementation in CPSEs is constituted in the Ministry under the Chairmanship of Dr. Sanjay Roy, Joint Secretary. This monitoring committee keeps a close watch on the targets regarding implementation of official language in CPSEs under the administrative control of Ministry of Steel. Also, this Committee periodically reviews the status of assurances given to Parliamentary Committee on Official Language during various inspections done by this Committee. Through this robust mechanism Ministry is able to keep a close track of all targets set for effective implementation of Official Language Policy of Government of India.

20.1.6 Official Language Inspections by the Officers of the Ministry / Parliamentary Committee on Official Language

Inspections of CPSEs under the administrative control of the Ministry to take stock of the progressive use of Official Language in those offices are done from time to time. 16 such inspection have been carried out during the period under review. Apart from this, Parliamentary Committee on Official Language inspected different offices of CPSEs under the administrative control of Ministry of Steel and Ministry had its representation in the meetings.

20.1.7 Hindi Workshops

Hindi Workshops are being organized in the Ministry at regular intervals. On 12.09.2024, a hindi workshop was organized on '**Official Hindi - Correct Spelling and Format**' and on 19.12.2024, a workshop was organized with aim to motivate and equip officials with **latest Hindi-e-tools and Kanthasth 2.0 to work in Hindi with ease**. A good number of officials of Ministry of Steel enthusiastically participated in these workshops.

20.1.8 Training Programme/Incentive Scheme

Incentive Scheme for doing the original official work in Hindi language is in operation comprising two 1st, three 2nd and five 3rd cash prizes of ₹ 5000/-, ₹ 3000/- and ₹ 2000/- respectively. In the financial year 2024-25, six employees were awarded under this scheme. This scheme is aimed at encouraging the employees to do their original official work in Hindi.

20.2 Steel Authority of India Ltd. (SAIL)

- SAIL has continued its thrust on implementation of the Official Language Policy of the Government of India. Continuous efforts are being made by SAIL for the propagation of official language Hindi. Monthly Hindi incentive is being provided to SAIL employees to encourage and popularize its usage in day-to-day official work.
- SAIL in house Hindi magazine '**Ispat Bhasha Bharti**' was published.
- Training programmes under Hindi Teaching Scheme were organized.
- SAIL computers are Unicode enabled and Hands on training is provided to employees from time to time to improve their skills for doing day to day official work in Hindi. During the year, Hindi workshops were organized to popularize Hindi amongst employees.
- A Hindi seminar "बदलती दुनिया, तार्किक और हिंदी" was organized on 16th September, 2024.

20.3 Rashtriya Ispat Nigam Ltd. (RINL)

Since inception at RINL, Official Language Policy, Rules and Acts are strictly adhered and specified targets of Annual Programme issued by Department of Official Language, Ministry of Home Affairs, Government of India are fulfilled.

Training and Workshops: 137 employees were trained under Hindi Prabodh/Praveen/Pragya/Parangat courses conducted by Hindi Teaching Scheme, Department of Official Language, Ministry of Home Affairs, Government of India. 149 Employees were trained in Practice based Hindi Workshops. 149 employees were trained to work on computers in Hindi through Unicode. 107 Regional/Branch Sales/Liaison Offices employees were trained in Hindi Workshops. 34 employees were trained on Presentation regarding Official Language Policy. 5 Spoken Hindi classes were organized in which 176 contract workers were also trained.

Inspections: 29 Departments at Head Quarters and 13 Regional & Branch Sales Offices were inspected through offline/Online mode. Three Offices were inspected by Ministry of Steel.

Organization of Hindi Month/Implementation Diwas: Organized Hindi Month in Head Quarter of RINL during September, 2024. Celebrated Hindi Diwas in 17 Regional/Branch Sales Offices. Hindi Implementation Diwas was conducted in 4 major Departments of RINL.

Hindi Seminar/Conference: A two Day National Level Hindi Seminar on "Latest Questionnaire of Parliamentary Committee on Official Language and Quarterly Progress Report" was conducted in August, 2024, attended by 61 participants. Two Conferences for Hindi Coordinators were organized.

Regional Official Language Prize awarded third Prize for commendable Work in Official Language to TOLIC (Undertaking) and Commendation Certificate to Member Secretary, TOLIC (Undertaking) for the year 2023-24 by Department of Official Language, Ministry of Home Affairs, Government of India.

20.4 NMDC Ltd.

- NMDC continued the implementation of Official Language Policy of Government of India effectively at its Headquarters, Projects, and Units.
- Hindi Parangat training to personnel was continued this year also in NMDC. So far, 179 personnel from Head Office have successfully completed their Hindi Parangat training.
- Hindi workshops were organized every quarter at Head Office and in all the projects.
- Official Language Implementation Committee was also held every quarter.
- Rajbhasha Technical Seminar was organized at Donimalai Iron Ore Mines, Donimalai Complex.
- Head Office organized an Inter-CPSE Hindi speech competition on August 6, 2024 for the personnel of all CPSEs located in Hyderabad.
- Hindi fortnight was organized in all projects and units along with Head office. On the occasion messages of CMD were published in Hindi newspapers and were also posted on social media platforms. Various competitions were also organized and prizes were distributed. To maintain continuity in the use of official language Hindi in official work, monthly Hindi competitions were organized in addition to Hindi fortnight and prizes were distributed as encouragement.
- Half yearly Hindi magazine **"Khanij Bharati"** was published from the Head Office. In addition, projects also published Hindi/bilingual/trilingual magazines such as Baila Samachar, Bacheli Samachar, Doni Samachar, Heera Samachar etc. Apart from this, **'Sarjana'** were published in Hindi from Kirandul.
- A special workshop on the updated questionnaire of the Parliamentary Committee on Official Language was conducted for the Official Language Officers working at the Headquarters and all the projects on August 28, 2024 at NMDC Limited, Head Quarter under the aegis of the Ministry of Steel.
- Keeping in view the objective of propagating Official Language Hindi among the students, NMDC organized a speech competition for girl students on December 10, 2024 in the college campus of St. Ann's College for Women, Hyderabad.
- Rajbhasha Kirti (Second) Prize was conferred on NMDC Limited during Hindi Diwas and Fourth All India Rajbhasha Conference organized by Department of Official Language, Ministry of Home Affairs in New Delhi on 14th and 15th September, 2024. Further, Deputy General Manager (Official Language) of the NMDC was awarded third prize in CPSE category in All India Kanthasth 2.0 Competition.
- NMDC Limited, Head Office received the Rajbhasha Shield-First Prize in the category of Mid-Sized CPSEs in Hyderabad from Town Official Language Implementation Committee (Undertakings), Hyderabad-Secunderabad.
- Official Language House Magazine **"Khanij Bharati"** of Head Office also won First prize in the e-magazine category of Town Official Language Implementation Committee (Undertakings), Hyderabad-Secunderabad.

20.5 NMDC Steel Ltd. (NSL)

- Official Language Fortnight was organized from 14th September to 28th September 2024, during which various competitions were organized for Officers/ Employees and the winners were given prizes and citations.
- Official Language Committee meetings were organized in all four quarters. Under which Committee has decided to follow :
 - i) Issuance of all documents bilingually.
 - ii) Correspondence status or usage of Hindi.
 - iii) Letters received in Hindi should be answered in Hindi.
 - iv) Annotating the files in Hindi.
 - v) Training of Hindi Language (Writing and Typing).
 - vi) Departmental I.T. facility to work in Hindi in Computers and laptops.
 - vii) Notifying sections to encourage to do their works in Hindi.
- Monthly Hindi usage incentives scheme was implemented and incentive amount was given to employees/Officers for the work done in Hindi.
- The Articles written by employees and Officers were selected and published in Khanij Bharti magazine.
- Provided multilingual facility (Unicode) installed in the computers of the project and to provide Hindi font Intook tool in the computers of Officers and employees, so that they could easily type/write in Hindi.
- Training was organized to the newly appointed trainees in the project by the Human Resources Department. After this, it was assured by the present members that they will discuss with the subordinate officers/employees in their sections and motivate them to comply with the training given to promote the works in Hindi.
- Participated in the half yearly meetings organized under the aegis of City Official Language Implementation Committee, Jagdalpur.
- The activities at the plant are published in the NMDC Steel Samachar magazine every quarter.

20.6 MOIL Ltd.

- Maximum correspondence in MOIL Limited including all the mines is done in Hindi and 97% Unicode system has been implemented in all the processors. The company has installed software related to Hindi in all the computer systems.
- In order to encourage the provisions contained in the Official Language Act, 1963, various types of Hindi competitions are held on Dr. Baba Saheb Ambedkar Jayanti, Swachhta Campaign, Quami Ekta Diwas and Vigilance Awareness Week.

- Hindi Workshops, Kavya Goshti and Rajbhasha Seminars have been organized in the company.

20.7 MECON Ltd.

MECON is effectively implementing the Official Language Policy of Government of India in its official work. MECON is also making all out efforts to achieve the targets fixed in the Annual Programme issued by Rajbhasha Vibhag, Ministry of Home Affairs, Government of India. For this purpose, there is an Official Language Implementation Committee constituted under the Chairmanship of CMD. Hindi workshops are being organised regularly for the employees. MECON is an important member of Town Official Language Implementation Committee (CPSE), Ranchi and actively participates in all the programmes.

Rajbhasha Vibhag of the Company had organised following events during 2024-25:-

- The progressive use of official language was discussed on 29.06.2024, 16.09.2024 and 21.12.2024 respectively by the Official Language Implementation Committee at MECON, Head Office, Ranchi.
- Hindi workshop is organized every quarter. During 2024-25, the workshops were organized on 29.05.2024, 22.07.2024 and 12.12.2024 respectively.
- During the financial year 2024-25 Rajbhasha Vibhag inspected Hindi implementation work in 11 Departments of Head Office, Ranchi.
- During the financial year 2024-25 Rajbhasha Vibhag, Head Office, Ranchi inspected Hindi implementation work of 9 of its subordinate Offices and project offices.
- Progressive use of Hindi in Head Office, Ranchi was inspected by Assistant Director (Implementation), Ministry of Home Affairs, Government of India, Kolkata on 22nd July, 2024.
- **“Hindi Pakhwara”** was observed in MECON at Head Office as well as in all the project site offices of the company from 14.09.2024 to 29.09.2024. On this occasion, all employees took a pledge to increase use of Hindi in their day to day official work. During the **“Hindi Pakhwara”**, competitions of various natures were also organized at Head Office and other offices of the Company.

20.8 MSTC Ltd.

Continuous efforts were made for publicity and effective implementation of Official Language in all the units of the Company and the progress made in this regard is also being continuously reviewed and monitored. In order to promote use of Hindi, Official Language in the Company, the activities such as in-House Hindi Trainings, participation in TOLIC meetings, implementation of various incentive schemes, online Hindi Inspections and Physical Inspections, “Rajbhasha Pakhwada-2024” were held.

During the year 2024-25, 40 employees were nominated to get trained under the Central Hindi Training Institute, Kolkata and 98 employees were nominated for Quarterly Hindi Workshops.

MSTC has been awarded first prize by NARAKAS, Kolkata for best official language implementation in 2023-24 in corporate office category. Among regional and branch offices, Telangana Regional Office got first, Andhra Pradesh Branch Office got first, Northern Regional Office, Delhi got Second and Chhattisgarh Branch Office got consolation prize from their respective NARAKAS. This is for the second time MSTC Ltd. has set a record of receiving 5-6 NARAKAS Awards cumulatively.

20.9 KIOCL Ltd.

2024-25 was of vivid activities and achievements in terms of progressive use of the Official Language. KIOCL Limited received the First prize during the first half-yearly meeting held on 4th December, 2024 by the Town Official Language Implementation Committee (Undertaking), Bengaluru.

The Department of Official Language conducted timely proceedings of the meetings of the Official Language Implementation Committee during the year as per the objectives of the Annual Program 2024-25 of the Department of Official Language (Ministry of Home Affairs). Regularly organized practical and office-related workshops and conducted official language inspections.

The Corporate Official Language Department of KIOCL participated in the 4th All India Official Language Conference organized in New Delhi on 14th – 15th September, 2024. The Department of Official Language organized innovative Hindi competitions during Hindi Pakhwada, 2024, in which all groups of employees participated. The winners of various competitions held during Hindi Pakhwada were ceremoniously given awards in the gracious presence of eminent literature.

During the year, various documents related to the Company's website, correspondence with the Ministry of Steel, reports on Standing Committees, Annual Reports, House Journal, Press Releases, RTI and other forms were translated promptly and efficiently by the Department of Official Language.

KIOCL Limited's e-magazine '**Srigandha**' was published every quarter of the year, and was disseminated through email and WhatsApp. The link of the e-magazine was also made available on the website of the Company and the web-portal of the Department of Official Language (Ministry of Home Affairs) under the E-Library section. The June issue was focused on International Yoga Day, the September issue on the Fourth All India Official Language Conference held in Delhi, the December issue on Overview and the March issue on International Women's Day.

Subsequently, adopting the basic mantra of inspiration and encouragement, KIOCL published advertorials and good thoughts related to Hindi in newspapers on Hindi Diwas (September 14) and World Hindi Day (January 10). With active participation in the Regional Official Language Conference of South and Southwestern Regions an exhibition of displays showing progressive progress was organized.

EMPOWERMENT OF WOMEN

21.1 Ministry of Steel

As on 31st December, 2024, 29 women are employed in the Ministry of Steel which constitutes 15.76% of the total manpower of 184. The Supreme Court of India in its judgment in August, 1997 in the case of Visakha and others versus State of Rajasthan and others, recognized international conventions and norms of gender equality of women, in relation to work and held that sexual harassment at workplace, is against their dignity and is violative of Article 14, 15(1) and 21 of the Constitution of India. As per the guidelines laid down by the Supreme Court, all employers whether in the public or private sector should take appropriate steps to prevent sexual harassment. As a part of the mechanism, a Complaint Committee (Sexual harassment of women at work place) with representatives from outside the organization is constituted. In compliance of the guidelines of the Supreme Court, Ministry of Steel has constituted a five member Internal Complaints Committee to look into complaints made by women employees and to address them.

21.2 Steel Authority of India Ltd. (SAIL)

- As on 31.12.2024, SAIL has 3364 women employees in both technical and Non-technical areas. There are women in managerial, technical (engineers) capacity, in medical, para-medical services and in academics. The Company provides equal opportunities to both genders in selection, recruitment and placement or at promotion levels.
- An equal career growth opportunity to all employees irrespective of the gender is the hallmark of SAIL's Policy towards professional development of its employees. The growing number of women in senior positions is an indication of this fact.
- The Training Policy of the Company takes care of training and development needs of all its employees including the women employees through training needs analysis. Women employees are considered for specialized/technical/ managerial training exposures in all areas in keeping with their career growth and job profiles.

21.3 Rashtriya Ispat Nigam Ltd. (RINL)

In RINL as on 31.12.2024, women employees constitute 3.49 % of its total manpower. About 6.68 % of the total executives and 2.01% of the total non-executives are women employees. Women employees are working in diverse and challenging areas like Operations and Projects besides the traditional functions in HR, Finance, Health Services, etc.

RINL facilitates the women workforce to be closely knit through the local cell of forum of Women in Public Sector (WIPS), formed under the aegis of SCOPE. The Cell has been associating in a number of activities organized for the development of women employees which includes Programmes on Managerial Development, Networking and Work-life Balance, Stress management, Time management and Counselling Skills, Social Skills including Gender Sensitivity for sensitizing its employees on issues relating to employment of women.

Activities/programs carried out during the year include:

- Annual 27th WIPS-RINL formation day on August 24, wherein various competitions such as Online Quiz, Olympics inspired DIY craft model were conducted and Dr. M. V Anuradha, Associate Professor (Organizational Behaviour Area), IIM was invited as a Guest Speaker.
- An Online webinar on “Women’s Financial Empowered Program” aimed at women financial education for fraud prevention and financial goal setting.
- An ‘Awareness Program on POSH act’ to both men and women employees to educate and sensitize employees.
- A “Homeopathy awareness” session to bring familiarity to the alternative medicines for the women employees.
- A session to educate Women Contract workers on Health & Menstrual Hygiene by Dr. G Sujatha, Chief Specialist (O&G).

Awards:

- Dr. Dasari Radhika, DGM(HR), RINL received the prestigious ‘Gender Diversity’ National award at the Indian Steel Association (ISA) Steel Conclave 2024.
- An all women Team ‘**Tarangini**’ won Gold Award at the International Convention on Quality Control Circles (ICQCC-2024) held at Colombo, Sri Lanka.

21.4 NMDC Ltd.

NMDC Limited employs 378 female employees which constitutes 6.63% of the total manpower. The Company provides equal opportunity for all at all levels, be it selection, recruitment, placement or promotion. The number of women in senior positions are also growing in NMDC Limited. Maternity leaves of six months are provided to all female employees as a statutory provision.

Separate restrooms, washrooms, daycare facilities have been provided across all offices and projects of NMDC. NMDC also sponsoring its female employees for training in awareness, family planning, healthcare etc.

21.5 NMDC Steel Ltd.(NSL)

NMDC Steel Limited employs 181 female employees which constitutes 17.14% of the total manpower. The Company provides equal opportunity for all at all levels, be it selection, recruitment, placement or promotion. The number of women in senior positions are also growing in NMDC Steel Limited. Maternity leaves of six months are provided to all female employees as a statutory provision.

Separate restrooms, washrooms, daycare facilities have been provided at all offices of NMDC Steel Limited. NMDC Steel Limited also sponsoring its female employees for training in awareness, family planning, healthcare etc.

21.6 MOIL Ltd.

MOIL has 820 women employees which constitute 15.38% of its total workforce. As per the provisions of The Sexual Harassment of Women at Work Place (Prevention, Prohibition and Redressal) Act, 2013, a Prevention of Sexual Harassment Committee has been set up in the Company to deal with the cases received under Sexual Harassment. The names of the Committee Members have been uploaded on Company's web site. i.e. **www.moil.nic.in**. Mahila Mandals are Working effectively at all the Mines of the Company. Various cultural, social, educative and community activities, such as adult education, blood donation camps, eye camps, family planning etc. are being organized regularly, mostly for the benefit of women residing in the remote mine areas.

21.7 MECON Ltd.

There is an Internal Complaints Committee headed by a senior Lady Executive as Presiding Officer to look into the grievance or complaints of women employees in MECON. MECON also follows instructions / guidelines issued by the Ministry/ Government of India from time to time with regard to empowerment of women. Besides, different programmes for training to women employees are conducted by Human Resource Department from time to time. The number of women employees in various posts is 101.

21.8 MSTC Ltd.

MSTC Limited employs 45 women employees which constitute about 15% of its total manpower.

MSTC is a Corporate Life Member of Forum of Women in Public Sector (WIPS). Internal Complaints Committees constituted in all the offices of MSTC, have been functioning successfully. Periodical meetings and Complaint redressal, awareness programs, etc. are also duly conducted by the Company.

MSTC strives to eliminate sexual harassment at workplace. To provide a safe working environment and to improve participation of female employees, the Company has the policy for prevention, prohibition and redressal of such offensive acts. The policy was implemented with the requirements of The Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act.

21.9 KIOCL Ltd.

As on 31.12.2024, total number of women employees is 22 which are 4.07% of total manpower.

All necessary measures/statutory provisions for safeguarding the interests of women employees in matters like payment of wages, hours of work, health, safety and welfare aspects, maternity benefits etc. are being followed by the Company.

In compliance to the provisions/requirements under the sexual harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013, Internal complaints committees were constituted at Bengaluru, Mangaluru & Kudremukh units to deal with complaints made by victims of sexual harassment. The Complaints Committee Comprises of a Senior level women executive as presiding officer, one male employee and one female employee as members and one women representative from Non-Governmental Organization (NGO) as third party member.

A Women's Forum – Women in Public Sector is operating in KIOCL and most of the women employees are members of the said Forum. KIOCL is a life Member for WIPS. Co-ordinators are being nominated on rotation basis from KIOCL to Liaison with the WIPS. Women employees (Members) are being nominated to attend Annual meets / Regional meets of WIPS by the Company.

For self actualization, and to step towards power sharing, seeking reappraisal of the overall development of women at the intersection of reciprocal roles and responsibilities of the two key stakeholders namely, the women themselves and the employee organizations/ institutions.

CORPORATE SOCIAL RESPONSIBILITY

22.1 Introduction

The broad framework for Corporate Social Responsibility (CSR) is provided under Section 135 of the Companies Act, 2013, Companies (CSR Policy) Rules, 2014, as amended vide Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021 and 2022, from time to time. Schedule VII of the Act stipulates the eligible CSR activities that can be undertaken by the Companies.

The Act, inter-alia, stipulates that companies exceeding the threshold limits, as specified in the Companies Act, 2013, have to allocate at least 2% of their average net profits of the company made during the three immediately preceding financial years for CSR activities. The amount under CSR is allocated and utilized by various Companies in accordance with the broad framework provided by the Government under section 135 of the Companies Act, 2013 and Companies (CSR policy) Rules, 2014, as amended from time to time. The Board of a company is empowered to plan, decide, execute and monitor CSR activities of the company. Schedule VII of the Companies Act indicates the activities that can be undertaken by the companies, which, inter-alia, include Health care, Education and Rural Development Projects, etc. Further, the first proviso to section 135 (5) of the Act provides that the company shall give preference to local areas and the areas around it where it operates.

Under the Act, CSR is a Board driven process and the Board of the company is empowered to plan, decide, execute and monitor CSR activities based on the recommendations of its CSR Committee. The CSR framework is disclosure based and CSR mandated companies are required to file details of CSR activities annually in the MCA 21 registry.

Department of Public Enterprises (DPE), from time to time, also issues guidelines/instructions to all administrative Ministries and CPSEs on CSR. For the financial year 2024-25, DPE has approved 'Health and Nutrition' as the common theme for CSR activities by CPSEs. Expenditure incurred on CSR is broadly incurred on areas stipulated under Schedule VII of the Act viz. promotion of education, health, women empowerment, sustainable income generation through Self Help Groups, assistance to divyangs, access to water and sanitation facilities, village development, environment sustenance, sports coaching, promotion of traditional art and culture, etc. Details of allocation and expenditure of funds under CSR are at **Annexure-XIV**.

22.2 Steel Authority of India Limited (SAIL)

SAIL CSR initiatives are implemented in conformity to the CSR provisions of Companies Act, 2013, Schedule-VII, CSR Rules, 2014 and Companies (CSR Policy) Amendment Rules, 2021 and 2022. The Board level CSR Committee comprising of 2 Functional Directors, 3 Independent Directors and headed by one of the Independent Director is in place. SAIL carries out CSR projects mainly in periphery of steel townships and mines in the thrust areas falling in line with the Schedule-VII. CSR Reporting is incorporated in the Director's Annual Report. The same is available on the Company's webpage.

Major CSR initiatives undertaken:

Health and Nutrition: SAIL Hospitals/Healthcare centers and Health camps through Mobile Medical Vans at Plants and Mines provide specialized and basic healthcare and free medicines benefitting above 2,60,000 villagers at their doorsteps in the peripheral areas. SAIL, in association with Akshay Patra Foundation, is providing Mid-day meals to around 60,000 students in 600 Government schools in Bhilai and Rourkela.

Education: SAIL is supporting over 77 schools providing modern education to more than 40,000 children in the steel townships. 22 Special Schools (Kalyan and Mukul Vidyalayas) are benefiting around 12026 BPL category students with free facilities, viz. education, midday meals, uniform, shoes, text books, etc. Over 450 children (including 15 Birhors under Gyanjyoti Yojna, Bokaro) from tribal and naxal-affected areas are getting free Education, Accommodation, Meals, Uniform and textbooks, etc. at Saranda Suvan Chhatravas, Kiriburu; Gyanodaya Chhatravas, BSP School Rajhara, Bhilai, etc.

Women Empowerment and Sustainable Income Generation: Vocational and skills development trainings targeted towards sustainable income generation are being imparted to 1578 youths and 2369 women in various skills.

Skill Development: About 490 rural youths have been sponsored for ITI trainings at ITIs of Bolani, Bargaon, Baliapur, Rourkela and Bokaro Private ITI, etc.

Environment Conservation: To promote renewable sources of energy, Solar street lights have been installed in rural areas, Solar Lanterns and smokeless chullahs have been distributed among the rural people of Saranda and other locations. Maintenance of parks, botanical gardens, water bodies, plantation/maintenance of over 5 Lakh trees in its townships is being undertaken.

Support to Divyangs(Differently Abled) and Senior Citizens: SAIL supports centers and programs at SAIL Plants like 'School for blind, deaf and mentally challenged children', 'Home and Hope' Rourkela, 'Ashalata Kendra' Bokaro, 'Handicapped Oriented Education Program' and 'Durgapur Handicapped Happy Home' Durgapur, and 'Cheshire Home' Burnpur. Old age homes are being supported at different Plant townships like 'Siyan Sadan' Bhilai, 'AcharyaDham' and 'Abasar' Durgapur and 'Sr. Citizens' Home' Rourkela, etc.

SAIL Plants/Units distributed assistive devices to Divyangjans and Senior Citizens across the country on 'International Day of Persons with Disabilities', i.e. 3rd December, 2024. Approx. 3,000 Divyangjans and Senior Citizens have been benefitted with assistive devices like Tricycle, Motorized Vehicles, Callipers, Hearing Aids, Smart Phones, Smart Canes etc., provided through the implementing partner Artificial Limbs Manufacturing Corporation of India (ALIMCO).

Sports, Art and Culture: SAIL is 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 organized every year.

SAIL-Bokaro Steel Plant in association with Special Olympics Bharat (SOB) organised National Sports Preparatory Training Camps and also extended partial assistance towards participation expenditure to the selected/trained Divyang athletes for Special Olympics Summer World Games 2023 (SOSWG 2023) at Berlin.

Development of Aspirational Districts: SAIL has undertaken CSR activities in 7 Aspirational Districts, viz. Kanker, Narayanpur and Rajnandgaon in Chhattisgarh and West Singhbhum, Bokaro and Ranchi in Jharkhand and Banka in Bihar.

Adoption of Model Steel Villages: In order to bridge the gap between rural and urban areas and to provide comprehensive development of both physical and social infrastructure, villages were adopted as "Model Steel Villages" (MSVs) across the country (in eight states). The developmental activities undertaken in these villages include medical and health services, education, roads and connectivity, sanitation, community centers, livelihood generation, sports facilities, etc. The facilities developed at these MSVs are maintained on requirement basis.

Development of Communities residing in Saranda Forest: In an effort to bring the marginalized masses of the remote forest areas to the mainstream of development, SAIL in association with the Government, actively participated in the development process of Saranda forest, Jharkhand. SAIL provided Ambulances, Bicycles, Transistors, Solar lanterns and established an Integrated Development Centre at Digha village with facilities like Bank, Panchayat Office, Ration shop, Telecom office, Anganwadi Centre, etc. for the inhabitants.

22.3 Rashtriya Ispat Nigam Limited (RINL)

Due to losses, the Company has not allocated any budget for implementation of CSR activities during the FY 2024-25.

22.4 NMDC Ltd.

Information regarding CSR activities taken up in 2024-25 (upto December, 24):

Major CSR initiatives undertaken:

Flagship CSR programs and new initiatives undertaken/initiated by the Company in 2024-25 (Upto December) :

EDUCATION:

- The Scholarship Scheme "NMDC Shiksha Sahayog Yojana" to motivate ST/SC students is in operation since 2008 and every year around 18000 scholarships were awarded to students from Class IX to Graduation level including Medicine & Engineering courses. The Scheme has been renamed in the year 2022-23 as "Balika Shiksha Sahayog Yojana" to motivate girl students to pursue education beyond 8th Class.

- Under NMDC Balika Shiksha Yojana, during the current academic year i.e. 2024-25, 40 girls have been sponsored in GNM & B.Sc. nursing courses at Apollo College/School of Nursing, Hyderabad. The success of the programme led to enhancement of no. of students from 40 to 85 this academic year. Plans are on the anvil to increase the intake to 200 from the academic year 2025-26. Till date around 500 students have been sponsored by NMDC for pursuing nursing courses.
- The Residential School started at Nagarnar in 2010 is also running successfully around 600 no. of students in class I to XII.
- Mid-day Meal programme covering 8000 rural school children in & around Donimalai Project in Karnataka is running successfully and NMDC is continuing its support to the initiative.

HEALTHCARE:

- Free out-patient & in-patient treatment facility was extended to 71721 & 21908 local tribals respectively during the year 2024-25 (Upto December, 2024).
- NMDC is operating 12 Mobile Medical Units for providing basic healthcare facilities at the doorstep of people living in remote, vulnerable and underserved regions in Bachel & Nagarnar of Chhattisgarh State and in Sandur & Hospet taluks in Bellary District of Karnataka.

INFRASTRUCTURE:

As part of NMDC's aim at bridging gaps in infrastructural development in the under developed areas around its Projects, NMDC has taken up various Rural Development and infrastructural works viz., construction of roads, bridges, culverts etc. in the year 2024-25.

SKILL DEVELOPMENT & SUSTAINABLE INCOME GENERATION

- The ITI with 2 trades at Nagarnar with the intake of 36 students each year is being operated successfully.
- The ITI at Bhansi with 5 trades is being operated successfully with the intake of 128 students each year. ITI Bhansi has been ranked 1st amongst all the ITIs in the State of Chhattisgarh by CRISIL. Apart from placements in Companies like Mundra Solar Power limited (Adani group), Suzuki Motors limited, NMDC Ltd., etc., many of the passed-out students are self-employed & many have started their entrepreneurship.
- The Polytechnic College at Dantewada, established with two streams i.e., Electrical & Mechanical with an intake of 126 students is being operated successfully. It is noteworthy to mention here that it is the only Polytechnic College in Chhattisgarh which is totally operated by a CPSE without any contribution from the Government of Chhattisgarh.

Initiatives approved/ initiated during 2024-25

NMDC has initiated several new initiatives under its CSR, besides successfully implementing its existing flagship initiatives. Some of the noteworthy initiatives are as follows:

- NMDC has partnered with the Government of Chhattisgarh for establishment of 8 Libraries at different Swami Aatmanand Schools (Government English Medium Schools) in Dantewada district.

- Operation of Aastha Vidya Mandir a Residential School for SC/ST & BPL category at Jawanga, Geedam.
- Support for operation of “Cholo Aasman” education facility providing integrated coaching for various National/State level entrance test in Dantewada District.
- Support for operation of Saksham-I (Boys) Saksham-II (Girls) Schools for differently abled children in Education City Jawanga.
- Construction of new primary school building in 20 locations in Bijapur District.
- Providing Projector, Computer, Printer & Furniture for High Schools in Sandur Taluk (12 Schools).
- Installation of Clean Drinking Water Plant in 5 Morarji Desai Residential Schools & 1 Kasturba Residential School in Sandur Taluk.
- Operation of 10 Mobile Medical Units in Sandur Taluk for two Years.
- Construction of Transit Accommodation - 10 Doctors at Primary Health Centre, Jagargunda – Sukma District.
- Development of 100 Anganwadi Centres as Model Anganwadi Centres in Konta Sukma District.
- Purchase and installation of MRI machine at District Hospital Dantewada.
- Construction of Culverts, Bridges & approach roads in remote villages of Kuakonda & Katekalyan Block Dantewada District for promotion of institutional delivery.
- Expansion and Improvement of Health Facility in Bastar District.
- Construction of 5 Primary Health Centres in Kondagaon.
- Providing Medical Equipment to District Hospital Narayanpur.
- Construction of Community Hall cum Sports complex for utilization of Sandur villagers.
- Construction of 10 Bus Stands in Sandur Taluk.
- Construction of road from Kongud to Dhanora in Kondagaon.

22.5 MOIL Ltd.

MOIL is committed towards its social goals and hence believes in implementing a holistic, impactful and influential Corporate Social Responsibility practices covering the major thrust areas. The company is taking up its CSR activities in lines with the provisions contained in the Companies Act, 2013, the Companies (Corporate Social Responsibility Policy) Rules, 2014, as amended from time to time and DPE guidelines. Company has formed Board Level CSR Committee headed by Independent Director. The CSR Policy is approved by the Board and uploaded on its website. The company has taken CSR initiatives as per Schedule VII of the Companies Act, 2013. MOIL (Manganese Ore India Limited) continues to demonstrate its commitment to social responsibility by implementing a variety of impactful CSR initiatives across key sectors including health, education, empowerment, and community welfare. Here are some of the major CSR activities that have been undertaken:

- MOIL has signed a Memorandum of Understanding (MOU) with the Artificial Limb Manufacturing Corporation of India (ALIMCO), a Central Public Sector Enterprise, to empower persons with disabilities. As part of this initiative, MOIL has distributed artificial limbs and rehabilitation aids to disabled individuals in Balaghat District and Chitrakoot (an Aspirational District) in Madhya Pradesh. Additionally, upcoming camps in Bhandara, Nagpur, and Gadchiroli Districts are expected to further benefit the community by providing much-needed support to persons with disabilities.



Nutrition Camp under CSR

- In line with its commitment to health, MOIL has provided medical equipment to the Government Hospital in Balaghat District, Madhya Pradesh, enhancing the healthcare infrastructure in the region. Additionally, in the Aspirational District of Nandurbar, MOIL has launched an Ante-Natal Healthcare Service program, reaching out to pregnant women with critical health interventions. This initiative has already benefitted around 800 women, ensuring better health outcomes for both mothers and infants.
- As part of its Pan-India health care initiative, MOIL has provided an Ultrasound Machine to the Primary Health Center in Sitapur, Uttar Pradesh. This addition is helping to improve diagnostic services and healthcare access for the local community.
- Since 2019, MOIL has been sponsoring 15 girls from economically weaker sections under the *Saksham Balika Yojna*. These girls are provided opportunities to pursue Bachelor's Degree courses in Nursing and General Nursing & Midwifery in partnership with Apollo College of Nursing, Hyderabad. This initiative has been instrumental in empowering young women with skills for a better future.
- MOIL runs a CBSE-registered school at Sitasangi in Bhandara District, in collaboration with the DAV Group of Schools. The school, with over 1000 students, offers modern educational facilities such as 35 classrooms, scientific laboratories, and a well-equipped library.

Furthermore, MOIL has recently inaugurated a DAV Public School at U kwa Mine this year, aimed at promoting education in rural areas. The company also supports two other schools—one in Bhandara District and another in Balaghat District, Madhya Pradesh—under its education and skill development initiatives.

- MOIL remains deeply committed to its CSR objectives, continuously striving to improve the quality of life for communities in and around its areas of operation. These initiatives not only contribute to the socio-economic development of the region but also reflect the company's dedication to creating lasting, positive impacts in various sectors.



Community Development Programme at Gumgaon Mine

AWARDS AND ACCOLODES

MOIL has been getting national/regional recognition for its good work in almost all the spheres of activities, some of which are:

- MOIL Ltd. has conferred with the **Performance Excellence Award-Organisation & Individual** at the 24th CEOs Conference by the Indian Institution of Industrial Engineering (IIIE) in Uttarakhand.
- MOIL won **Maharashtra State Best Employer Brand Award 2024** at the 19th Employer Branding Awards in Mumbai.
- MOIL has won the **Best Corporate Social Responsibility (CSR) Practices Award** at the Golden Globe Tigers Awards 2024.
- MOIL Gumgaon mine received the **second prize in the small metal Below Ground category at the Mines Safety Award 2024** in Kolkata.
- **MOIL's Chikla and Kandri mines** have been honoured with the **coveted 5-star ratings by the Indian Bureau of Mines (IBM)** in recognition of the exceptional contributions to plantation, sustainable mining, green energy generation & zero waste mining for the year 2022-23, at Mines Safety awards 2024 in New Delhi.
- MOIL LIMITED was declared the "WINNER" of the Prestigious National Award "ATAL SHASTRA MARKENOMY – **BEST Global Strategic Public Sector Enterprise (PSE) of INDIA** Impacting Infra, Mining & Steel Sectors in Mumbai.

- MOIL Ltd. proudly shines at the 49th International Convention on Quality Circles (ICQCC 2024), held from in Colombo, Sri Lanka. MOIL's Parakh Quality Circle Team from Tirodi Mine and Avigna Quality Circle Team from Balaghat Mine, showcased their excellence and innovation, winning the prestigious Gold Awards.
- MOIL has won **five prestigious PRCI awards** across diverse categories, including Business Communication Leadership, Art, Culture & Sports, Website & Microsite, House Journal (Regional), and Annual Report at the 18th Global Communication Conclave PRCI Awards in Mangalore.
- MOIL has been honoured with the prestigious **Governance Now 9th India CPSE IT Award in the 'Data Centre Excellence' category** at New Delhi.
- At the **53rd All India Mines Rescue Competition** held in Dhanbad, MOIL's Rescue team delivered an outstanding performance, securing awards in multiple categories, including the theory test, fresh air base category, and metal category.
- MOIL has won **three PRSI awards** across diverse categories, including social media for PR & Branding, Corporate Website, Outstanding initiatives for promoting Medical & Health at the 46th All India Public Relations Conference in Raipur.

22.6 MECON Ltd.

The CSR activities carried out by MECON for empowerment of women and children during period 1st April, 2024 to 31st December, 2024 are as follows:

CSR Activities for empowerment of children

- Providing Nutritional Supplements (Moong Dal, Masoor Dal, Gota Moong, Rajma, Soyabean/ Soyabean bari, Sattu, Dalia, Dates, Yellow Peas & Kabuli Chana) & administering Medicinal Supplements (Vitamin D, Calcium, Multivitamin (Vitamin B Complex) Syrup, Chewable Vitamin C Tablets) among around 521 children upto 6 years of age, in the adopted villages – Pancha, Rupru & Pandutoli of Ranchi District and villages - Rai & Sungi of Khunti District of Jharkhand (Aspirational Districts of Jharkhand).
- In addition, the Outreach Children of Muskan Classes of Township School in Ranchi District (Jharkhand) have also been covered under this programme.
- Running of 5 Community Education Centres for the under privileged poor Children in the slum/backward areas in and around Ranchi District of Jharkhand. Each centre has a dedicated Teacher who is given a Monthly honorarium by MECON under this programme. The number of children enrolled in these centres is around 97.

CSR Activities for empowerment of women

Free Stitching Training is being provided to the under-privileged Womenfolk at 5 Stitching Training Centres, which are running in the slum area/backward area in and around Ranchi and in Adopted Village of Khunti district of Jharkhand. Each centre has a dedicated Teacher who is given a Monthly honorarium by MECON under this programme. The number of students being trained in these centres is around 47.

22.7 MSTC Ltd.

MSTC implements CSR project with the help of external specialized agencies. Empanelled agencies of Government/ semi-Government/ CSR hub are engaged wherever possible. Agencies who intend to undertake any CSR activity, have to be registered with NITI Aayog. The agency shall also be registered with Central Government (ROC) and to have a unique CSR Registration Number issued by ROC with effect from 1st April 2021. Evaluation of the project is done by dealing officers/CSR Committee. The monitoring system includes regular field visits to Project / Programme sites by designated team of officials.

The major developmental activities carried out by MSTC Ltd. during period 1st April, 2024 to 31st December, 2024 are as follows:

Major CSR initiatives undertaken:

- Haematology Analyzer for Clinical Pathology Department of Hope Hospital, Kolkata, West Bengal.
- Procurement of Ambulance with basic medical support for TADSW at West Midnapore, West Bengal.
- Critical Medical Equipment for Sri Sathya Sai Sanjeevani hospital at Bengaluru, Karnataka.
- Financial Assistance for purchase of one Ambulance for NAHHTEMA at Dimapur, Nagaland.
- Medical Equipment for Haematological Disease Care Centre and IABCD Blood Bank at Kolkata, West Bengal.
- 3D/4D USG Machine and Colour Doppler for Ramakrishna Sarada Mission Matri Bhavan Hospital at Kolkata, West Bengal.
- Mobile Medical Unit with Medical Equipment for Deseeya Sevabharati Keralam at Idukki, Kerala.
- Ultrasound Machine for District Hospital, Serchhip, Mizoram.
- Medical Equipment for MY BLOOD Charitable Blood Bank at Belagavi, Karnataka.
- Medical Equipment for Jankalyan Blood Centre at Nandurbar, Maharashtra.
- Echocardiography and set of LED Endoscopy and Colonoscopy Machine for Malati Sen Memorial Hospital at Kamrup, Guwahati.

22.8 KIOCL Ltd.

As a socially conscious Corporate, KIOCL is contributing significantly towards community development and socio-economic development of people since inception to ensure that people living in the vicinity of company's projects are benefitted directly and indirectly through the various development projects. However, for the year 2024-25, due to poor financial conditions of the Company, KIOCL has availed set off of ₹149.72 Lakhs, which was minimum statutory expenditure required to be incurred under Companies Act, 2013 from carry forward of excess expenditure incurred towards CSR during the Financial Year 2021-22 and as a result KIOCL has not taken up any CSR projects during FY 2024-25.

IMPLEMENTATION OF RIGHT TO INFORMATION ACT, 2005

23.1 Introduction

With a view to promote openness, transparency and accountability in the administration and good governance of the country, the Government of India enacted the Right to Information (RTI) Act, 2005 on June 15, 2005. The Act also aims to protect the citizens' Right to Information to enable every citizen to secure access to the information from the public authorities.

23.2 Implementation of the RTI Act, 2005

A Nodal Officer has been nominated to process the applications and appeals under RTI Act and to centrally monitor their progress in the Ministry. The Nodal Officer is assisted by Section Officers. Also, the officers of the level of Under Secretary/Assistant Director (OL)/Assistant Industrial Advisor or equivalent level Officer of the Ministry of Steel have been designated as Central Public Information Officer (CPIO) and Officers of the level of Director / Deputy Secretary / Joint Director (OL) / Deputy Industrial Advisor or equivalent Officer of Ministry of Steel have been designated as Appellate Authority, respectively. All Public Authorities under the administrative control of the Ministry of Steel have also nominated their respective Public Information Officers (PIOs)/Assistant Public Information Officers (APIOs) and Appellate Authorities (AAs). Web portal for online filling of RTI application has been launched by Department of Personnel and Training (DoPT) and the Ministry of Steel has been a part of RTI online web portal w.e.f. 25.06.2013.

During 2024-25 (from 1st April, 2024 to 31st December, 2024), Ministry of Steel has received 375 RTI Applications through online mode and 15 RTI Applications through offline mode. Besides, in compliance with RTI provisions, as communicated by Central Information Commission on 09.01.2024, Third Party Audit of proactive disclosure package of the Ministry of Steel was conducted by National Institute of Secondary Steel Technology (NISST).

The details of applications under RTI Act received during the period from 01.04.2024 to 31.12.2024 is as under:

Public Authority	Application Received during 01.04.2024 to 31.12.2024	Application Disposed of during 01.04.2024 to 31.12.2024	Application Pending on 31.12.2024
Ministry of Steel	390 (including 15 offline)	349	41
SAIL	2030	1838	192
RINL	305	270	35
NMDC Ltd.	245	236	09
MOIL Ltd.	157	148	09
MECON Ltd.	78	69	09
KIOCL Ltd.	42	37	05
MSTC Ltd.	119	107	12

23.3 Steel Authority of India Ltd. (SAIL)

SAIL has appointed Public Information Officer (PIO)/Asst. Public Information Officers, Appellate Authorities and Transparency Officer under Sections 5 and 19(1) of the Act in each Plant and Unit for speedy redressal of the queries received under the Act. All the officers/line managers responsible for providing information to the PIO are called Deemed PIO, and are equally responsible as PIO towards timely submission of information to the applicant.

An exclusive RTI Portal for SAIL has 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 CIC Portal. Implementation of online requests has already been introduced from 1st May, 2015. A compilation of Record Retention Policy of various functions of Corporate Office has also been uploaded on the website of the Company.

23.4 Rashtriya Ispat Nigam Ltd. (RINL)

Information available in the 17 manuals of the RTI has been updated on Company's website in accordance with the requirement of Section 4(1)(b) of Right to Information Act, 2005. Quarterly Returns and Annual Returns on implementation of RTI Act, 2005 are being submitted regularly in the CIC portal.

23.5 NMDC Ltd.

NMDC has published on its website, www.nmdc.co.in, information under Section 4(1)(b) of the RTI Act, 2005. Details of Public Information Officer and Appellate Authority are being updated

regularly for the information of the public. Annual reports of the Company which gives lot of information on its working are widely circulated and also available in NMDC's website. Further information is disseminated through press conference, press handouts etc. NMDC maintains all its records in a transparent manner. Information is given to the maximum extent in the form in which it is asked for and in the local language as well, when needed.

NMDC Steel Limited

NMDC Steel Limited entertains all the offline and also online RTI applications sent through RTIMIS Government portal: **rtionline.gov.in** Head of personnel Department is CPIO for handling RTI cases. Information is provided within stipulated timeline.

23.6 MOIL Ltd.

MOIL has appointed CPIOs at the Corporate Office and PIOs / APIOs have also been appointed in all its Mines. Jt. General Manager (Personnel) had been appointed/designated as Appellate Authority under the Act. The names of all the PIOs / APIOs and the Appellate Authority have also been hosted in Company's website **www.moil.nic.in**. The information in respect of company, its employees etc. has been prepared under 17 heads as prescribed in Section 4(1) (b) of the RTI Act, and the same has been hosted in Company's portal. MOIL has been submitting necessary information and returns to the prescribed authorities and updating the same regularly.

The Company has also hosted/updated in Company's website as much information suo-moto at regular intervals for the public, so that public has minimum resort to use the various provisions under the RTI Act to obtain information. For the awareness of employees at large, seminars have been organized to make them understand the importance of RTI Act in the present scenario and highlighted the provisions of the Act.

23.7 MECON Ltd.

All the relevant manuals pertaining to RTI Act, 2005 have been hosted on "MECON's Website **www.meconlimited.co.in** w.e.f. 19th September, 2005. A Central Public Information Officer (PIO) and the 1st Appellate Authority have been nominated by MECON at its Headquarters and Assistant Public Information Officers (APIOs) have been nominated at various Regional and Site Offices. The queries coming to MECON from the public are being attended to by these nominated officials and replied back by the Central Public Information Officer within the stipulated time period. A Transparency Officer has also been appointed in accordance with RTI Act to ensure smooth and effective implementation of RTI Act.

23.8 MSTC Ltd.

Provisions of RTI Act, 2005 have been complied with for processing the RTI applications and appeals received in all offices of MSTC. There are one Transparency Officer, one First Appellate Authority, one Central Public Information Officer (CPIO), one Nodal Officer in MSTC, Head Office and every Region/Branch has one PIO for effectively processing the RTI applications received at various offices of the Company located pan India. All quarterly reports have been submitted online and have been uploaded on CIC site.

23.9 KIOCL Ltd.

KIOCL has appointed PIOs at the Corporate Office and PIOs/APIOs have also been appointed in all its Plants/other Units. Executives at the Top levels has been appointed/ designated as Appellate Authority under the Act. The names of all the PIOs/APIOs and the Appellate Authority has also been hosted on KIOCL's website: **www.kioclltd.in**. The obligation of the preparation of the manual prescribed in clause (b) subsection (1) Section (4) has been complied with and these have also been hosted on KIOCL's portal within the stipulated time frame given under the Act and the same is being reviewed and updated at regular intervals. KIOCL has been updating the requisite information on periodical basis. The monthly return is being sent to concerned authorities regularly. The system of submission of quarterly return to the CIC has been introduced.

(Refer Chapter-II, Para 2.1)

ANNEXURE - I**MINISTRY OF STEEL
(ISPAT MANTRALAYA)¹**

1. Planning, development and facilitation of setting up of iron and steel production facilities including Electric Arc Furnace (EAF) units, Induction furnace (IF) units, processing facilities like re-rollers, flat products (hot/cold rolling units), coating units, wire drawing units and steel scrap processing².
2. Development of iron ore mines in the public sector and other ore mines (manganese ore, chrome ore, limestone, sillimanite, kyanite, and other minerals used in the iron and steel industry but excluding mining lease or matters related thereto).
3. Production, distribution, prices, imports and exports of iron and steel and ferro-alloys.
4. Matters relating to the following undertakings including their subsidiaries, namely³
 - i. Steel Authority of India Limited (SAIL);
 - ii. Rashtriya Ispat Nigam Limited (RINL);
 - iii. Kudremukh Iron Ore Company Limited (KIOCL);
 - iv. Manganese Ore (India) Limited (MOIL);
 - v. National Mineral Development Corporation Limited (NMDC);
 - vi. Metallurgical and Engineering Consultants (India) Limited (MECON);
 - vii. Sponge Iron India Limited (SIIL);
 - viii. OMITTED.⁴
 - ix. Bharat Refractories Limited (BRL);
 - x. Metal Scrap Trade Corporation (MSTC);
 - xi. Ferro Scrap Nigam Limited (FSNL); and
 - xii. Bird Group of Companies (BGC).

¹Modified vide Amendment series no. 238 dated 23.05.1998 and 243 dated 15.10.1999.

²Modified vide Amendment series no.306 dated 31.07.2014 (earlier modified vide Amendment series no.281 dated 01.09.2005).

³Modified vide Amendment series no.286 dated 01.06.2006.

⁴Omitted vide Amendment series no.337 dated 06.12.2017.

ANNEXURE - II**MINISTER IN CHARGE AND OFFICERS
IN THE MINISTRY OF STEEL****(Down to Deputy Secretary level)**(As on 31st December, 2024)

Minister of Steel	Shri H. D. Kumaraswamy
Minister of State for Steel	Shri Bhupathiraju Srinivasa Varma
Secretary	Shri Sandeep Poundrik
Additional Secretary and Financial Adviser	Vacant
Joint Secretaries	Shri Abhijit Narendra Shri Vinod Kumar Tripathi Shri Sanjay Roy
Deputy Director General	Ms. Swapna Bhattacharya
Economic Adviser	Shri Ashwini Kumar
Chief Controller of Accounts	Shri Arvind Kumar
Directors	Ms. Neha Verma Shri Devidatta Satapathy Ms. Sudershan Mendiratta Shri Ajit Kumar Sah Ms. Gurpreet Gadhok Shri Gopalakrishnan Ganesan Shri Nitin Jain
Deputy Secretary/Joint Director	Shri Amit Pankaj Shri Subhash Kumar Shri S Sharad Rao Shri N. S. Venkateshwaran Shri G. Sarathy Raja(Lateral Entry) Shri Raj Kumar Shri Ananda Bhoi

(Refer Chapter-III, Para 3.4)

ANNEXURE - III

PRODUCTION OF IRON & STEEL

('000 tonnes)

Sl. No.	ITEM / PRODUCER	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 Provisional)
PRODUCTION						
I.	CRUDE STEEL :					
	SAIL, TSL Group, RINL, AM/NS, JSWL Group, JSPL, NMDC					
	Oxygen Route	43,299	52,515	56,665	59,421	44,417
	E.A.F.Units	21,754	22,359	23,389	26,490	19,339
	The Remaining Producers					
	Oxygen Route	1,786	2,070	2,127	2,185	1,515
	E.A.F.Units	7,653	8,138	4,815	5,121	4,332
	Induction Furnaces	29,052	35,211	40,201	51,081	42,408
	TOTAL (Crude Steel)	1,03,545	1,20,293	1,27,197	1,44,299	1,12,011
	% share of The Remaining Producers	37.2%	37.8%	37.1%	40.5%	43.1%
II.	PIG IRON :					
	SAIL, TSL Group, RINL, AM/NS, JSWL Group, JSPL, NMDC					
		1,413	1,462	1,184	2,209	1,710
	The Remaining Producers	3,464	4,801	4,677	5,156	4,622
	TOTAL (Pig Iron)	4,877	6,262	5,861	7,364	6,332
	% share of The Remaining Producers	71.0%	76.7%	79.8%	70.0%	73.0%
III.	SPONGE IRON :					
	Gas Based	6,175	8,866	8,007	9,785	6,744
	Coal Based	28,201	30,334	35,614	41,776	34,712
	TOTAL (Sponge Iron)	34,376	39,200	43,621	51,560	41,456
	% share by Process (Coal Based)	82.0%	77.4%	81.6%	81.0%	83.7%
IV.	FINISHED STEEL (Production) (Alloy/Non-Alloy) :					
	SAIL, TSL Group, RINL, AM/NS, JSWL Group, JSPL, NMDC					
		55339	65055	72265	78,228	58,425
	The Remaining Producers	40,865	48,542	50,931	60,924	48,767
	TOTAL (Finished steel)	96,204	1,13,597	1,23,196	1,39,153	1,07,192
	% share of The Remaining Producers	42.5%	42.7%	41.3%	43.8%	45.5%

Note: P stands for Provisional figure ; NMDC Steel Ltd. has started production from September, 2023 onwards;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - IV

PRODUCTION OF CRUDE STEEL

('000 Tonnes)

Sl. No.	Producer	2020-21			2021-22			2022-23			2023-24			2024-25 (upto Dec., 2024 (Provisional))		
		Working Capacity	Production	% Utili- sation	Working Capacity	Production	% Utili- sation	Working Capacity	Production	% Utili- sation	Working Capacity	Production	% Utili- sation	Working Capacity	Production	% Utili- sation
A. Public Sector Unit																
1	SAIL	19,632	15,213	77	20,632	17,363	84	20,632	18,292	89	20,632	19,240	93	20,632	14,081	68
2	RINL	6,300	4,302	68	6,300	5,272	84	7,300	4,137	57	7,300	4,411	60	7,300	2,455	34
3	NMDC Steel Ltd.	-	-	-	-	-	-	-	-	-	3,000	540	18	3,000	1,018	-
	Total Public Sector	25,932	19,515	75	26,932	22,636	84	27,932	22,429	80	30,932	24,192	78	30,932	17,552	57
B. Pvt. Sector Unit																
4	TSL Group	19,400	17,204	89	20,600	19,464	94	20,600	19,805	96	21,500	20,783	97	21,500	16,234	76
5	AMNS(Essar Steel Ltd.)	10,000	6,696	67	9,600	7,295	76	9,600	6,688	70	9,600	7,683	80	9,600	5,508	57
6	JINDAL STEEL AND POWER LTD.	8,600	6,859	80	8,100	7,458	92	8,100	7,509	93	9,600	7,645	80	9,600	5,023	52
7	JSW Steel Ltd.	18,000	14,780	82	23,000	18,023	78	-	-	-	-	-	-	-	-	-
8	JSWL Group	-	-	-	-	-	-	25,750	23,623	92	28,080	25,608	91	33,080	19,438	59
9	OTHER BOF	4,077	1,786	44	3,177	2,070	65	3,177	2,127	67	3,177	2,185	69	3,177	1,515	48
10	OTHER EAF	11,640	7,653	66	11,614	8,138	70	8,743	4,815	55	7,828	5,121	65	9,248	4,332	47
11	OTHER IF	46,266	29,052	63	51,040	35,211	69	57,397	40,201	70	68,797	51,081	74	79,443	42,408	53
	Total Private Sector	1,17,982	84,030	71	1,27,130	97,658	77	1,33,367	1,04,768	79	1,48,583	1,20,107	81	1,65,649	94,459	57
Total (Public Sector + Private Sector)		1,43,914	1,03,545	72	1,54,062	1,20,293	78	1,61,299	1,27,197	79	1,79,515	1,44,299	80	1,96,581	1,12,011	57
Share of Public Sector (%)		18	19		17	19		17	18		17	17		15.7	15.7	

Note: P stands for Provisional figure ; NMDC Steel Ltd. has started production from September, 2023 onwards;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - V

PRODUCTION OF CRUDE STEEL (By Route)

('000 tonnes)

PROCESS ROUTE	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 (Provisional))
OXYGEN ROUTE					
SAIL	15,054	17,153	18,055	18,980	13,885
RINL	4,302	5,272	4,137	4,411	2,455
NMDC				540	1,018
TSL Group	15,163	17,215	17,514	18,335	14,532
JSW Steel Ltd.	8,780	10,380	-	-	
JSWL Group	-	-	14,236	14,530	11,046
Jindal Steel & Power Ltd.	-	2,495	2,723	2,625	1,481
Other Oxygen Route	1,786	2,070	2,127	2,186	1,515
TOTAL OXYGEN ROUTE :	45,085	54,585	58,792	61,607	45,932
ELECTRIC ROUTE					
ELECTRIC ARC FURNACE					
SAIL	158	210	237	261	196
TSL Group	2,041	2,249	2,290	2,448	1,702
JSW Steel Ltd.	6,000	7,643	-	-	5,508
JSWL Group	-	-	9,387	11,079	-
AM/NS(Essar Steel Ltd.)	6,696	7,295	6,688	7,683	8,392
Jindal Steel & Power Ltd.	6,859	4,963	4,786	5,020	3,542
Other Electric Arc Furnace	7,653	8,138	4,815	5,121	4,332
TOTAL ELECTRIC ARC FURNACE :	29,407	30,498	28,204	31,611	23,671
ELECTRIC INDUCTION FURNACE	29,052	35,211	40,201	51,081	42,409
TOTAL ELECTRIC ROUTE :	58,460	65,708	68,405	82,692	66,079
GRAND TOTAL :	1,03,545	1,20,293	1,27,197	1,44,299	1,12,011

Note: P stands for Provisional figure ;NMDC Steel Ltd. has started production from September, 2023 onwards;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - VI

PRODUCTION OF HOT METAL

('000 Tonnes)

PLANTS	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 (Provisional))
STEEL AUTHORITY OF INDIA LTD.	16,581	18,734	19,409	20,496	14,977
RASHTRIYA ISPAT NIGAM LTD.	4,681	5,774	4,407	4,700	2,678
NMDC				970	1,430
TSL Group	17,775	19,405	19,835	21,434	16,787
AM/NS(Essar Steel Ltd.)	3,331	3,335	3,375	3,573	2,764
JSW STEEL LTD.	14,389	16,794	-	-	
JSWL GROUP	-	-	22,476	23,549	19,052
JINDAL STEEL AND POWER LTD.	5,862	6,068	6,165	6,116	4,563
(A) SUB TOTAL	62,619	70,111	75,667	80,838	62,251
(B) The Remaining Producers	6,647	8,112	5,496	6,207	5,392
TOTAL (A+B)	69,266	78,223	81,162	87,045	67,643
% SHARE OF The Remaining Producers	10%	10%	7%	7%	8%

Note: P stands for Provisional figure. NMDC Steel Ltd. has started production from September, 2023 onwards;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - VII

PRODUCTION OF PIG IRON

('000 tonnes)

Public Sector Unit	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 (Provisonal))
Steel Authority of India Limited	631	554	361	418	335
Rashtriya Ispat Nigam Limited	38	80	40	0	0
NMDC Steel Ltd.	-	-	-	300	320
Total Public Sector	669	634	401	718	655
Pvt. Sector Unit					
TSL Group	179	98	108	576	308
Jindal Steel and Power Ltd.	284	496	534	281	125
JSW Steel Ltd.	281	234	-	-	
JSWL Group	-	-	141	633	621
Other Pvt. Unit	3,464	4,801	4,677	5,155	4,622
Total Private Sector	4,208	5,628	5,460	6,646	5,677
Total production (A+B)	4,877	6,262	5,861	7,364	6,332

Note: P stands for Provisional figure . NMDC Steel Ltd. has started production from September, 2023 onwards;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - VIII

**PRODUCTION OF FINISHED STEEL
(Non-Alloy & Alloy Steel)**

('000 tonnes)

PLANTS	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 (Provisonal))
Steel Authority of India Ltd.	11,089	13,829	15,282	16,255	11,672
Rashtriya Ispat Nigam Ltd.	2,694	3,750	3,643	3,731	2,156
NMDC Steel Ltd.				531	995
TSL Group	16,562	18,745	19,459	21,152	15,877
AM/NS (Essar Steel Ltd.)	6,608	7,217	6,677	7,549	5,575
JSW Steel Ltd.	14,050	16,367	-	-	
JSWL Group	-	-	21,785	23,260	5,082
Jindal Steel and Power Ltd.	4,335	5,147	5,418	5,750	17,067
SUB TOTAL (A) :	55,339	65,055	72,265	78,228	58,425
The Remaining Producers (B)	40,865	48,542	50,931	60,925	48,767
TOTAL PRODUCTION (A+B)	96,204	1,13,597	1,23,196	1,39,153	1,07,192
% SHARE OF The Remaining Producers	42.5	42.7	41.3	43.8	45.5

Note: P stands for Provisional figure. NMDC Steel Ltd. has started production from September, 2023 onwards;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - IX

CATEGORYWISE PRODUCTION OF FINISHED STEEL

('000 Tonnes)

CATEGORY	2020-21			2021-22			2022-23			2023-24			2024-25 (UPTO DEC., 2024 (PROVISIONAL))		
	SAIL,RINL, TSL GROUP/AM/ NS, JSWL,JSPL, NMDC	THE REMAIN- ING PRO- DUCERS	TOTAL	SAIL,RINL, TSL GROUP, AM/ NS, JSWL,JSPL, NMDC	THE REMAIN- ING PRO- DUCERS	TOTAL	SAIL,RINL, TSL GROUP, AM/ NS, JSWL,JSPL, NMDC	THE RE- MAINING PRODUC- ERS	TOTAL	SAIL,RINL, TSL GROUP, AM/ NS, JSWL,JSPL, NMDC	THE REMAIN- ING PRO- DUCERS	TOTAL			
FINISHED STEEL (NON-ALLOY)															
BARS & RODS	11,687	25,484	37,171	15,320	31,878	47,198	16,298	35,380	51,679	17,503	41,422	58,924	12,222	33,505	45,727
STRUCTURALS	1,651	4,843	6,494	2,212	5,268	7,480	2,633	5,976	8,609	2,819	7,487	10,306	2,126	6,184	8,310
RLY. MATERIALS	1,470	23	1,493	1,331	14	1,346	1,478	15	1,493	1,524	21	1,544	1,210	18	1,228
TOTAL(NON-FLAT)	14,807	30,350	45,157	18,863	37,160	56,024	20,409	41,372	61,781	21,845	48,929	70,774	15,558	39,707	55,265
PM PLATES	4,165	81	4,246	5,236	119	5,355	5,238	100	5,338	5,634	117	5,751	3,886	60	3,946
HR COIL/STRIP	35,213	5,992	41,204	39,638	5,598	45,236	42,826	3,606	46,433	47,523	5,700	53,223	35,649	4,027	39,676
TOTAL(FLAT)	39,378	6,073	45,451	44,874	5,717	50,591	48,064	3,706	51,770	53,157	5,817	58,974	39,535	4,087	43,622
TOTAL (NON-ALLOY)	54,185	36,422	90,608	63,738	42,877	1,06,615	68,474	45,078	1,13,551	75,002	54,746	1,29,748	55,093	43,794	98,887
FINISHED STEEL (ALLOY)															
NON-FLAT	814	2,176	2,990	1,040	2,793	3,832	1,380	2,909	4,289	1,509	3,150	4,659	989	2,000	2,989
FLAT	167	169	336	85	253	337	2,343	240	2,583	1,054	305	1,359	2,197	240	2,437
TOTAL (ALLOY)	981	2,345	3,326	1,124	3,046	4,170	3,723	3,148	6,872	2,563	3,456	6,019	3,186	2,240	5,426
FINISHED STEEL (STAINLESS)															
NON-FLAT	0	577	577	0	733	733	0	846	846	0	1,027	1,027	82	805	887
FLAT	172	1,520	1,692	193	1,886	2,078	68	1,859	1,927	133	2,226	2,360	63	1,928	1,992
TOTAL (STAINLESS)	172	2,097	2,270	193	2,619	2,811	68	2,705	2,773	133	3,253	3,387	146	2,733	2,879
FINISHED STEEL (NON-ALLOY + ALLOY + STAINLESS)															
TOTAL(NON-FLAT)	15,622	33,103	48,725	19,903	40,686	60,589	21,790	45,126	66,915	23,355	53,106	76,460	16,630	42,512	59,142
TOTAL(FLAT)	39,717	7,762	47,479	45,152	7,856	53,007	50,475	5,805	56,280	54,344	8,349	62,693	41,795	6,255	48,051
TOTAL FINISHED STEEL	55,339	40,865	96,204	65,055	48,542	1,13,597	72,265	50,931	1,23,196	77,698	61,455	1,39,153	58,425	48,767	1,07,192

Note: P stands for Provisional figure. NMDC Steel Ltd. has started production from September, 2023 onwards;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - X

CATEGORY-WISE IMPORT OF IRON & STEEL

('000 tonnes)

Sl.No.	CATEGORY	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 (Provisonal))
I	Semi-finished Steel(Non-Alloy)					
	Semis	113	12	330	433	155
	Re-rollable Scrap	144	119	286	175	207
	TOTAL	257	131	616	609	363
II	Finished Steel(Non-Alloy)					
	Non-Flat					
	Bars & Rods	143	63	115	158	148
	Structurals	31	14	9	6	15
	Rly.Materials	63	68	76	76	17
	TOTAL Non-Flat	237	145	199	239	179
	Flat					
	Plates	379	237	161	660	719
	HR Sheets	1	0	0	10	2
	HR Coils/Skelp/Strips	828	811	1,525	3,003	2,677
	CR Coils/Sheets	222	340	386	330	250
	GP/GC Sheets	767	735	914	1,290	1,013
	Elec.Sheets	460	430	264	329	353
	TMBP	0	0	0	0	0
	Tin Plates	138	54	11	7	7
	Tin Free Steel	48	12	3	2	1
	Pipes	158	150	215	324	274
	TOTAL Flat	3,001	2,769	3,479	5,955	5,296
	TOTAL Fin. Steel (Non-Alloy)	3,238	2,913	3,678	6,195	5,476
	TOTAL STEEL (Non-Alloy)	3,495	3,044	4,294	6,803	5,838

Sl.No.	CATEGORY	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 (Provisonal))
	Alloy/Stainless Steel					
	Non-Flat	344	214	233	198	194
	Flat	1,171	1,542	2,111	1,927	1,755
	Semi-finished	32	38	386	720	424
	TOTAL FIN. STEEL (Alloy/ Stainless)	1,515	1,756	2,344	2,125	1,949
	TOTAL STEEL (Alloy/ Stainless)	1,547	1,794	2,730	2,845	2,373
	TOTAL FIN. STEEL (Non- Alloy + Alloy/Stainless)	4,752	4,669	6,022	8,320	7,424
	TOTAL Steel (Non-Alloy + Alloy/Stainless)	5,042	4,838	7,024	9,648	8,211
III	Other Steel Items					
	Fittings	113	135	173	101	100
	Misc.Steel Items	287	350	240	168	241
	Steel Scrap	5,571	4,845	9,915	8,695	6,856
IV	Iron					
	Pig Iron	9	26	118	366	229
	Sponge Iron	55	35	300	608	346
V	Ferro-Alloys	664	600	344	516	461
	GRAND TOTAL	11,742	10,830	18,114	20,102	16,444

Note: P stands for Provisional figure ;

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - XI

CATEGORY-WISE EXPORT OF IRON & STEEL

('000 tonnes)

CATEGORY	2020-21	2021-22	2022-23	2023-24	2024-25 (upto Dec., 2024 (Provisional))
SEMIS (Non-Alloy)	6,553	4,866	1,597	1,022	711
FINISHED STEEL (Non-alloy)					
Non-Flat					
Bars & Rods	974	2,096	346	427	269
Structurals	116	203	185	102	59
Railway Materials	16	2	0	3	0
Total Non-Flat	1,107	2,301	531	533	328
Flat					
Plates	538	875	528	629	294
H R Coils/Sheets	6,654	6,185	1,661	2,750	788
C R Sheets/Coils	495	1,059	352	517	349
GP/GC Sheets	952	1,730	1,132	1,652	835
Elec. Sheets	42	42	37	28	5
Tinplates	17	39	12	21	73
Tin Free Steel	2	2	0	0	0
Pipes	139	137	231	647	400
Total Flat	8,838	10,067	3,953	6,244	2,745
Total Fin. Steel (Non-Alloy)	9,945	12,369	4,484	6,776	3,073
Total Steel (Non-Alloy)	16,498	17,234	6,081	7,798	3,784
Non-Flat Alloy/Stainless	301	634	304	280	232
Flat Alloy/Stainless	538	491	1,929	430	295
Total Finished Steel (Alloy/Stainless)	839	1,125	2,233	710	527
Semi-Finished (Alloy/Stainless)	48	12	24	34	270
Total Steel (Alloy/Stainless)	887	1,137	2,257	744	797
Total Fin. Steel (Non-Alloy + Alloy / Stainless)	10,784	13,494	6,716	7,487	3,600
Total Steel (Non-Alloy + Alloy / Stainless)	17,385	18,372	8,338	8,542	4,581
PIG IRON	1,099	1,213	629	385	193
SPONGE IRON	511	788	1,085	1,309	1,081

Note: P stands for Provisional figure;

Source: JPC

(Refer Chapter-I and V)

ANNEXURE - XII

COMPARATIVE PBT (PROFIT BEFORE TAX) OF STEEL CPSEs

(Rs. in crore)

S. No.	CPSE/Company	2020-21	2021-22	2022-23	2023-24	2024-25 (Provisional) (upto Dec., 2024)
1.	SAIL	6879.03	16038.72	2636.91	3687.67	1444.84
2.	RINL	(-)1259.02*	941.58	(-)3236.46	(-)5218.46	(-)3943.43**
3	NMDC Ltd.	8902	13022	7637	8012	6946
4.	NMDC Steel Ltd.	-	-	-	(-)2201.02	(-)2657.17**
5.	MOIL Ltd.	240.11	523.29	334.45	387.00	350.66
6.	MECON Ltd.	19.11	19.54	34.01	52.08	(-) 95.21
7.	MSTC Ltd.	114.68	220.08	313.48	284.44	171.62
8.	KIOCL Ltd.	410.23	411.03	(-) 122.76	(-) 63.70	(-) 158.98

* Restated

** Provisional as per Estimated Monthly Working Results (MWR).

(Refer Chapter-I and V)

ANNEXURE - XII A

COMPARATIVE PAT (PROFIT AFTER TAX) OF STEEL CPSEs

(Rs. in crore)

S. No.	CPSE/COMPANY	2020-21	2021-22	2022-23	2023-24	2024-25 (Provisional) (upto Dec., 2024)
1.	SAIL	3850.02	12015.04	1903.07	2733.11	970.00
2.	RINL	(-)1012.16*	913.19	(-)2858.74	(-)4848.86	(-)3664.73**
3	NMDC Ltd.	6253	9448	5529	5632	5196
4.	NMDC Steel Ltd.	-	-	-	(-) 1560.32	(-) 1900.23**
5.	MOIL Ltd.	176.63	376.98	250.59	293.34	262.40
6.	MECONLtd.	6.24	13.70	31.01	24.52	(-) 95.21
7.	MSTC Ltd.	101.07	200.09	239.23	171.91	128.43
8.	KIOCL Ltd.	301.17	313.41	(-) 97.67	(-) 83.31	(-) 158.98

* Restated

** Provisional as per Estimated Monthly Working Results (MWR).

(Refer Chapter-V)

ANNEXURE - XIII

**CONTRIBUTION MADE TO THE CENTRAL GOVERNMENT AND
GOVERNMENT INSURANCE COMPANIES BY STEEL CPSEs**

(Rs. in crore)

S. No.	CPSE/Company	2020-21	2021-22	2022-23	2023-24	2024-25 (Provisonal) (upto Dec., 2024)
1.	SAIL	6074	16510	15829	13919	10586
2.	RINL	1888.05	3005.69	3032.70	2981.66	1885.51
3.	NMDC Ltd.	6269	8895	4763	6645	4712
4.	NMDC Steel Ltd.	-*	-*	-*	87.75	85.54
5.	MOIL Ltd.	95.17	438.34	324.50	328.50	282.99
6.	MECON Ltd.	108.64	96.64	145.90	93.89	86.79
7.	MSTC Ltd.	73.72	412.79	227.24	225.32	173.44
8.	KIOCL Ltd.	148.54	168.11	63.44	46.51	20.52

*Date of Commencement of Commercial Operations declared on 31.08.2023

(Refer Chapter-V)

ANNEXURE - XIII A

**CONTRIBUTION MADE TO THE
STATE GOVERNMENT BY STEEL CPSEs**

(Rs. in crore)

S. No.	CPSE/Company	2020-21	2021-22	2022-23	2023-24	2024-25 (Provisional) (upto Dec., 2024)
1.	SAIL	2084	7792	7796	8096	5590
2.	RINL	322.26	474.19	530.90	463.17	341.06
3.	NMDC Ltd.	2,809	10,631	9,731	9,625	7,428
4.	NMDC Steel Ltd.	-*	-*	-*	7.95	8.67
5.	MOIL Ltd.	90.49	126.35	143.83	148.31	81.72
6.	MECON Ltd.	12.06	11.46	23.45	19.06	22.55
7.	MSTC Ltd.	8.67	20.93	23.52	26.69	15.87
8.	KIOCL Ltd.	3.02	4.30	21.85	6.16	1.18

*Date of Commencement of Commercial Operations declared on 31.08.2023

(Refer Chapter-XXII)

ANNEXURE - XIV

BUDGET AND EXPENDITURE ON CSR BY STEEL CPSEs

(Rs. in lakh)

Sl. No.	CPSE/ Company	2020-21		2021-22		2022-23		2023-24		2024-25*(Provisional)	
		Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp
1	SAIL	5000	4718	8186	9424	15795	16246	15875	16193	13763	10322##
2	RINL	1075	1011	1200	1142	0	33	0	0	0	0
3	NMDC Ltd.	20000	19999	16450	15862	25000	28733	21000	8758	19707	4615
4	MOIL Ltd.	1138.78*	1318.12	854.38*	1320.11	710.61*	1373.54**	703.99*	1666.48***	805.22*	964.20
5	MECON Ltd.	310.50 ^A	44.68	343.20 ^B	149.84	277.11 ^C	61.45	271.46 ^D	124.69	365.07 ^E	89.75
6	MSTC Ltd.	-	-	-	17.84	272.00	301.69	376.00	377.60	480.00	254.08#
7	KIOCL Ltd.	871.77	884.66	438.70	1341.70	589.96	554.98	87.50	87.50	Set off availed from carry forward excess expenditure incurring towards CSR during FY 2021-22	NA

*CSR budget is considered 2% of PBTof average net profit of the last three years as per Section 135 of the Companies Act 2013.

**This amount includes set off of Rs. 600 lakh transferred from CSR Pre-spent expenditure of Rs.2000 lakh available for set off as per the provisions of the Companies Act, 2013 and rules made thereunder.

***This amount includes set off of Rs.700 lakh transferred from CSR Pre-spent expenditure of Rs.1400 lakh available for set off as per the provisions of the Companies Act, 2013 and rules made thereunder. **Note: The figures contained in the Annual Report are unaudited and provisional figures.**

#Upto December, 2024

Provisional - Note: Due to loss incurred by MSTC Limited during FY 2018-19, the average net profit of the Company was negative resulting in no CSR obligation to the Company for the year 2019-20, 2020-21 and 2021-22. However, pursuant to the direction received from Administrative Ministry, Rs. 54.00 Lakh was transferred to PM CARES Fund during FY 2019-20. MSTC Ltd. has voluntarily spent Rs. 17.84 Lakh during the financial year 2021-22. During financial year 2022-23 and 2023-24, against budgets of Rs. 272.00 Lakh and Rs. 376.00 Lakh, MSTC Ltd. has spent Rs. 301.69 Lakh and Rs. 377.60 Lakh respectively on various CSR activities related to Health. During financial year 2024-25 against budget of Rs. 480.00 Lakh, MSTC Ltd. has spent Rs. 254.08 Lakh as on 31.12.2024.

A For FY 2020-21, the Total CSR Fund Available is Rs. 310.50 Lakhs, which includes **Rs. 93.99 Lakhs** as Fund Allocation for FY 2020-21 + Rs. 216.51 Lakhs as Carry-over Fund of On-going Projects of previous years.

B For FY 2021-22, the Total CSR Fund Available is Rs. 343.20 Lakhs, which includes **Rs. 77.38 Lakhs** as Fund Allocation for FY 2021-22 + Rs. 265.82 Lakhs as Carry-over Fund of On-going Projects of previous years.

C For FY 2022-23, the Total CSR Fund Available is Rs. 277.11 Lakhs, which includes **Rs. 83.75 Lakhs** as Fund Allocation for FY 2022-23 + Rs. 193.36 Lakhs as Carry-over Fund of On-going Projects of previous years.

D For FY 2023-24, the Total CSR Fund Available is Rs. 271.46 Lakhs, which includes **Rs. 55.88 Lakhs (Rs. 48.40 Lakhs)** as Fund Allocation for FY 2023-24 + **Rs. 7.40 Lakhs** as Surplus Fund of Interest earned for the FY 2021-22 & FY 2022-23 on "Flexi Deposit Account" of Unspent CSR Balance for FY 2020-21) + **Rs. 215.66 Lakhs** as Carry-over Fund of On-going Projects of previous years.

E For FY 2024-25, the Total CSR Fund Available is **Rs. 365.07 Lakhs**, which includes **Rs. 70.37 Lakhs** as Fund Allocation for FY 2024-25 + **Rs. 146.76 Lakhs** as Carry-over Fund of On-going Projects of previous years + **Rs. 147.94 Lakhs** as excess CSR allocation for FY 2024-25.

The expenditure of **Rs. 89.75 Lakhs** includes contribution to PM Cares Fund for the FY 2020-21 and the unspent amount of FY 2023-24.

(Refer Chapter-IX, Para 9.2.3)

Annexure- XV

Release of Grants under R&D Scheme

(Rs. in Lakh)

S. No.	Title of the R&D project	2024-25 (till December, 2024)		
		Total	Capital	Revenue
1	Study the Physical and Mineralogical effect on the recovery of Iron values from beneficiation Plant residual fines/ Slimes/ Tailings and lean-grade Iron Ores: An approach towards Iron Ore Sustainability.	49.47854	34	15.47854
2	Technology development for utilization of spent EAF graphite electrode to prepare high commercial value graphene products.	21.11461	18	3.11461
3	Strategic Recycling of cold rolling mill oil sludge of Jindal Stainless Ltd to recover the valuable.	11.64214	11.64214	0
4	Beneficiation of coking coal by hybrid mode: dry and wet processing to reduce the ash forming impurities.	33.81528	0	33.81528
5	Strategic Recycling of cold rolling mill oil sludge of Jindal Stainless Ltd to recover the valuable.	0.85786	0.85786	0
6	Study the Physical and Mineralogical effect on the recovery of Iron values from beneficiation Plant residual fines/ Slimes/ Tailings and lean-grade Iron Ores: An approach towards Iron Ore Sustainability.	3.90645	0	3.90645
7	Technology development for utilization of spent EAF graphite electrode to prepare high commercial value graphene products.	12.38538	0	12.38538
8	Strategic Recycling of cold rolling mill oil sludge of Jindal Stainless Ltd to recover the valuable.	6.87999	0	6.87999

S. No.	Title of the R&D project	2024-25 (till December, 2024)		
		Total	Capital	Revenue
9	Beneficiation of coking coal by hybrid mode: dry and wet processing to reduce the ash forming impurities.	11.22971	0	11.22971
10	Development of Type Designs of Aangan-waadi and Houses using Structural Steel as part of Pradhan Mantri Awas Yojana towards Enhancing Use of Steel in Housing Sector.	7.60233	7.60233	0
11	Development of Type Designs of Aangan-waadi and Houses using Structural Steel as part of Pradhan Mantri Awas Yojana towards Enhancing Use of Steel in Housing Sector.	49.42546	0	49.42546
12	Development of Steel Slag based cost effective eco-friendly fertilizers for sustainable agriculture and inclusive growth.	61.241	0	61.241
	Total	197.47642	72.10233	269.57875

ANNEXURE - XVI**REPORTS OF CAG**

Audit observations are received from Ministry of Finance for inclusion in the Annual Report. This year no Audit observations have been received from Ministry of Finance by 24.01.2025 for inclusion in the Annual Report.





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सत्यमेव जयते

Government of India
Ministry of Steel