

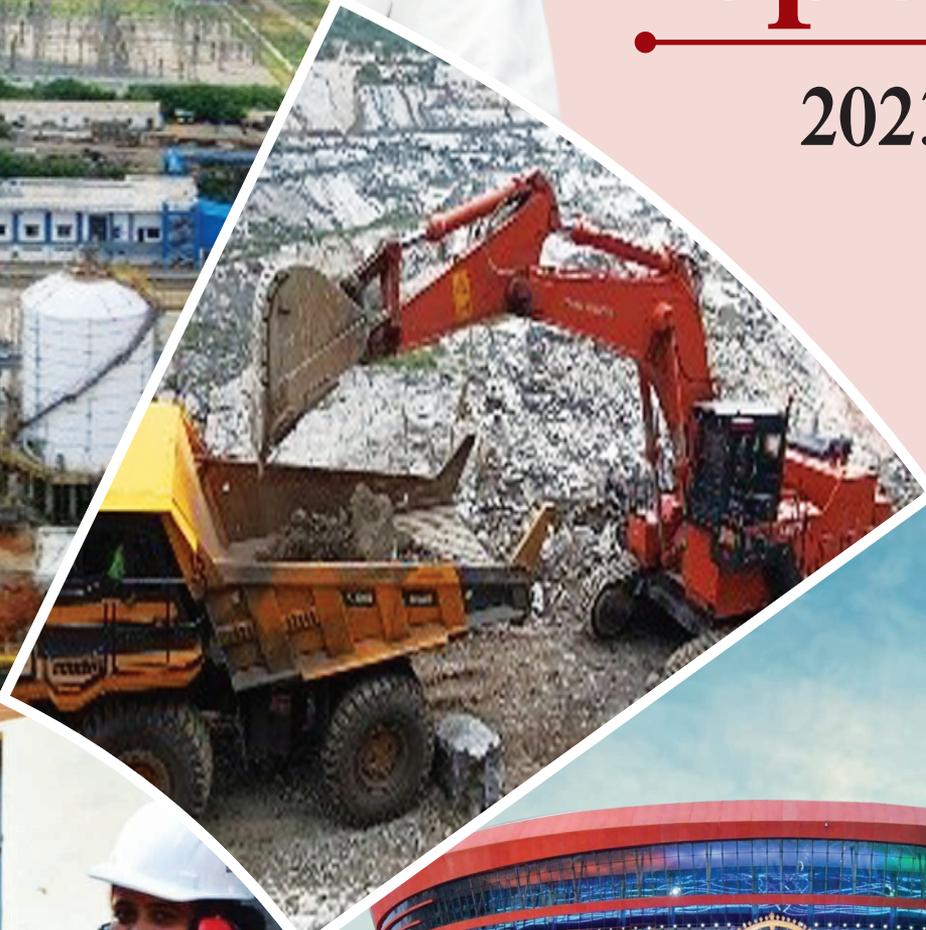


Government of India  
Ministry of Steel



# Annual Report

2023-24





**JAI ANUSANDHAN**



सत्यमेव जयते

GOVERNMENT OF INDIA  
MINISTRY OF  
**STEEL**

**ANNUAL REPORT**  
**2023-24**



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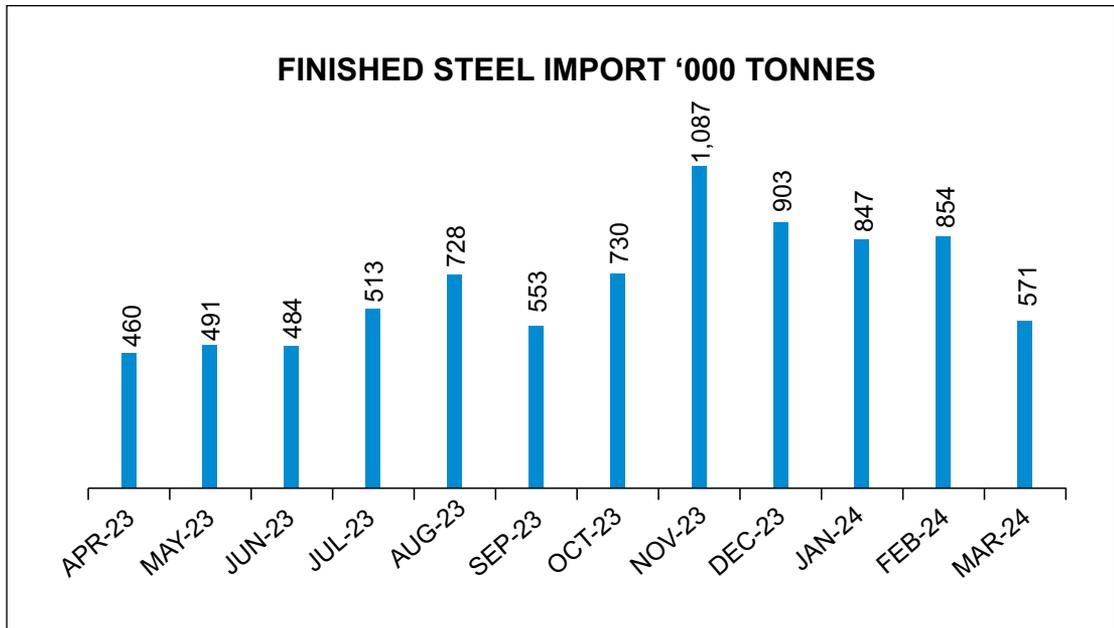


# HIGHLIGHTS

## 1.1 Trends and Developments in Steel Sector

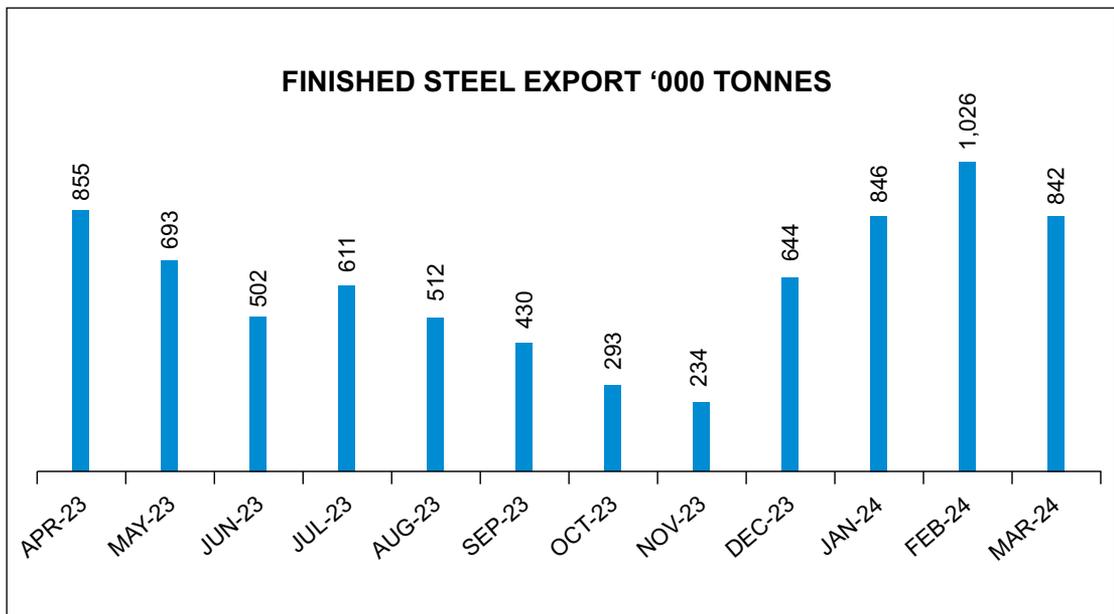
- During calendar year 2023, India was the 2<sup>nd</sup> largest producer of Crude Steel as per data (provisional) released by the World Steel Association in their 'World Steel in Figures 2023' publication.
- Crude Steel production expanded from 109.137 Million Tonnes (MT) in 2019-20 to 144.299 MT in 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 2023-24, the following was the industry scenario ( Source: JPC):
  - a) Crude Steel production stood at 144.299 MT. SAIL, RINL, TSL Group, AM/NS, JSWL and JSPL together produced 85,371 MT with a share of 59% in total production which was up by 6.6% over the CPLY. The rest amounting to 58.928 MT came from the Other Producers. With 83% share in total Crude Steel production, the Private Sector produced 120.107 MT Crude Steel which was up by 7.9% over the CPLY.
  - b) Pig Iron production was at 7.364 MT, up by 25.6% over the CPLY. With a share of 26% in total Pig Iron production, SAIL, RINL, TSL Group, AM/NS, JSWL and JSPL together produced 1.909 MT which was up by 61.2% over the CPLY. The rest came from the Other Producers with a growth of 16.6% over the CPLY. The Private Sector produced 6.646 MT which was up by 21.7% over the CPLY.
  - c) Facts for Total Finished Steel (non-alloy + alloy/stainless) in 2023-24 (Source: JPC):
    - ◆ Production of Total Finished Steel stood at 139.153 MT showing a growth of 13.0% over the year.
    - ◆ Consumption of Total Finished Steel was 136.291 MT showing a growth of 13.7% over the CPLY.
    - ◆ **Overall Steel Trade Scenario:**

During FY 2023-24, the overall imports of total finished steel stood at 8.32 million tonne (mt), up by 38.21% as compared to CPLY. In value terms, the import of total finished steel was at Rs. 68,193 Crores.



Source: Joint Plant Committee (JPC)

Whereas overall exports of total finished steel were at 7.49 mt, up by 11.46% as compared to CPLY. In value terms, the export of total finished steel stood at Rs. 59,157 Crores. After a declining trend in export of finished steel during July'23 to November'23, export has shown increasing trend since December'23 upto February' 24.



Source: Joint Plant Committee (JPC)

India was a net importer of total finished steel and overall trade deficit (total finished steel) stood at Rs. 9,036 Crores during FY 2023-24.

- Detailed information on production, consumption, import and export of total Finished Steel and production of crude steel for the last five years (2019-20 to 2023-24) are shown in the table below :

(in Million Tonnes)

Item	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Crude Steel</b>					
Production	109.137	103.545	120.293	127.197	144.299
<b>Finished Steel</b>					
Production	102.621	96.204	113.597	123.196	139.153
Consumption	100.171	94.891	105.752	119.893	136.291
Import	6.768	4.752	4.669	6.022	8.320
Export	8.355	10.784	13.494	6.716	7.487

Source: JPC

## 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.



*PLI Scheme for Specialty Steel MoU Signing*

**PM GatiShakti Masterplan:** In order to address the concerns in logistics in the Steel Sector, Ministry of Steel has on boarded itself as user of infrastructure on PM GatiShakti Masterplan by uploading the Geo locations of more than 2100 steel units functioning in the country.

**Circular Economy in Steel:** Steel is amenable to recycling many a times. Steel scrap is an input material for production of steel by secondary sector. Use of steel scrap for production of steel is part of Circular Economy push in the steel sector. It reduces burden on natural resources and is less carbon emitting.

In this backdrop, the Steel Scrap Recycling Policy was notified on 07<sup>th</sup> November, 2019. The policy provides a framework to facilitate and promote establishment of metal scrapping centres in India for scientific processing and recycling of ferrous scrap generated from various sources and a variety of products. The policy framework provides standard guidelines for collection, dismantling and shredding activities in an organized, safe and environmentally sound manner. The Policy prescribes the guidelines for setting up and responsibilities of dismantling centre and scrap processing centre, roles of aggregators and responsibilities of the Government, manufacturer and owner.

**Quality Control on Steel:** 145 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. Out of these QCOs on 139 Indian Standards have been enforced.

**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.

**Steel Minister's Advisory Groups:** Two Advisory Groups, one for Integrated Steel Plants (ISPs) and another for Secondary Steel Industry (SSI) have been constituted under the Chairmanship of Hon'ble Minister of Civil Aviation and Steel. The aim of these two advisory groups is to identify common issues vexing the Industry and finding a way for their resolutions with active participation from the Ministry.

Each Advisory Group has Members from the industry / former Government officials / experts from academia / heads of associations etc.

## 1.3 Highlights of Central Public Sector Enterprises (CPSEs) during 2023-24

### 1.3.1 Steel Authority of India Ltd. (SAIL)

- Crude Steel Production of 19.240 MT and finished Steel production of 15.751MT was achieved during FY'23-24.
- SAIL achieved best ever year performance during FY' 2023-24 in the following:
  - Hot Metal production at 20.496 MT
  - Crude Steel production at 19.240 MT
  - Saleable Steel production at 18.437 MT
- Sales Turnover of Rs. 104545 crore during FY'24 has been achieved as against Rs.103729 crore during CPLY.
- Profit Before Tax (PBT) of Rs. 3688 crore during FY'24 has been registered as against PBT of Rs.2637 crore during CPLY.
- Profit After Tax (PAT) of Rs. 2733 crore during FY'24 has been achieved as against Rs.1903 crore during CPLY.
- Net worth of the company was Rs. 54131 crore as on 31.03.2024 as against Rs.52139 crore as on 31.03.2023.

### 1.3.2 Rashtriya Ispat Nigam Ltd. (RINL)

- Crude Steel production of 4.41 MT and Saleable Steel production of 4.21 MT has been achieved.
- 74% growth achieved in production of High end Value Added Steel (HeVAS).
- Achieved Sales volume of 4.3 MT with 15% growth over CPLY.
- Registered Sales Turnover of Rs. 23,224 Crs - growth of 2% over CPLY.
- Achieved 1.324 MT of Value Added Steel sales - growth of 37% over CPLY.
- Profit Before Tax (PBT) of Rs.(-)4887.19 Crore (Provisional) has been registered.
- Profit After Tax (PAT) of Rs.(-)4450.54 Crore (Provisional) has been registered.

### 1.3.3 NMDC Ltd.

- Production of iron ore during the year was 45.02 million tonnes.
- Sale of iron ore was 44.48 million tonnes during the year.
- Turnover of Rs.21,294 crores has been achieved during the year.
- Profit Before Tax (PBT) of Rs.8,012 crores during the year.
- Profit After Tax (PAT) of Rs.5,632 crores has been achieved during the year.

### 1.3.4 NMDC Steel Ltd.(NSL)

- Production of Hot Rolled Coil during the FY 2023-24 was 493503 tonnes.
- Production of Liquid Steel during the FY 2023-24 year was 517862 tonnes.
- Production of Hot Metal during the FY 2023-24 year was 966468 tonnes.
- Production of Pig Iron during the FY 2023-24 year was 308085 tonnes.
- Sale of Hot Rolled coil during the FY 2023-24 was 351848 tonnes.
- Sale of Pig Iron during the FY 2023-24 was 243054 tonnes.
- The 3 MTPA Steel Plant commenced commercial production w.e.f 31<sup>st</sup> August, 2023.
- Production of HR Coils of 4.92 Lakh MT in its maiden year of Operations.
- Sale of HR Coils of 3.52 Lakh MT in its maiden year of Operations.
- Sale value of Rs. 3049 Crore generated from the sale of HR Coils, by products & Intermediate products.

### 1.3.5 MOIL Ltd.

- MOIL has recorded best ever production of any financial year since inception at 17.56 lakh tonnes, registering a significant growth of 35% y-o-y.
- The company has achieved its best ever sales of 15.36 lakh tonnes in FY'24, registering a remarkable growth of 30% y-o-y.
- The Company has also achieved best ever production of Electrolytic Manganese Dioxide (EMD) at 1413 tonnes, higher by 28% y-o-y.
- MOIL has carried out its best ever exploratory core drilling of 87,661 meters which is more than double of the previous year.
- Total income of the company for the year 2023-24 is Rs. 1542.96 crore (Provisional).
- Profit Before Tax (PBT) for the year 2023-24 is Rs. 387.00 crore (Provisional).
- Profit After Tax (PAT) for the year 2023-24 is Rs. 293.34 crore (Provisional).
- The Net worth of the company is Rs. 2453.08 crore as on 31.03.2024 (Provisional)

### 1.3.6 MECON Ltd.

- Turnover of Rs.926.76 Cr. (provisional for FY 2023-24).
- The Net worth of the Company was Rs. 502.25 Cr. (provisional as at 31.03.2024).
- Profit Before Tax / Profit After Tax (PBT/PAT) Rs. 51.05 Cr. (provisional for FY 2023-24).

### 1.3.7 MSTC Ltd.

- Turnover of Rs. 318.69 crore (provisional, up to March 2024) has been achieved.
- Profit Before Tax (PBT) of Rs. 272.67 crore (provisional, up to March 2024) has been achieved.
- Profit After Tax (PAT) of Rs. 204.92 crore (provisional, up to March 2024) has been achieved.

### 1.3.8 KIOCL Ltd.

- Production of 1.906 Million Tonnes of Iron Ore Pellets was achieved for the Financial Year 2023-24.
- Sales of 1.790 Million Tonnes of Iron Ore Pellets was achieved for the Financial Year 2023-24.
- Turnover of Rs.1853.57 Crores has been achieved for the Financial Year 2023-24 (provisional and un-audited).
- Mining Lease Deed executed between Government of Karnataka and KIOCL Limited on 02.01.2023 for the grant of a mining lease for Iron Ore and Manganese Ore, over an extent of 388 ha for a period of 50 years in Devadari Range, Sandur Taluk, Ballari District of Karnataka State has been registered on 18.01.2023 by paying the total amount of Rs.329.17 Crores which includes the stamp duty, cess on stamps and fees for registering documents.
- 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 in respect of Devadari Iron Ore Mine.

# 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 197 employees are in position as on 31<sup>st</sup> March, 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 37 Divisions dealing with various subjects. The key divisions include Board Level Appointments, Coordination, International Cooperation, Raw Materials, Technical, Industrial Development (Make in India), Steel Development (Institutes), SAIL, MF, NMDC, MECON, RINL, KIOCL, MOIL, Trade and Taxation, Information Technology, Gatishakti 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) is the only institution in the country under the aegis of the Ministry of Steel, Government of India to collect data on the Indian iron and steel industry, resulting in the creation and maintenance of a non-partisan databank for this industry. JPC is headquartered at Kolkata with a pan-India presence through regional offices and extension offices engaged in data collection.

**2.2.1.2** JPC is currently headed by Additional Secretary and Financial Advisor, Ministry of Steel as its Chairperson 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:

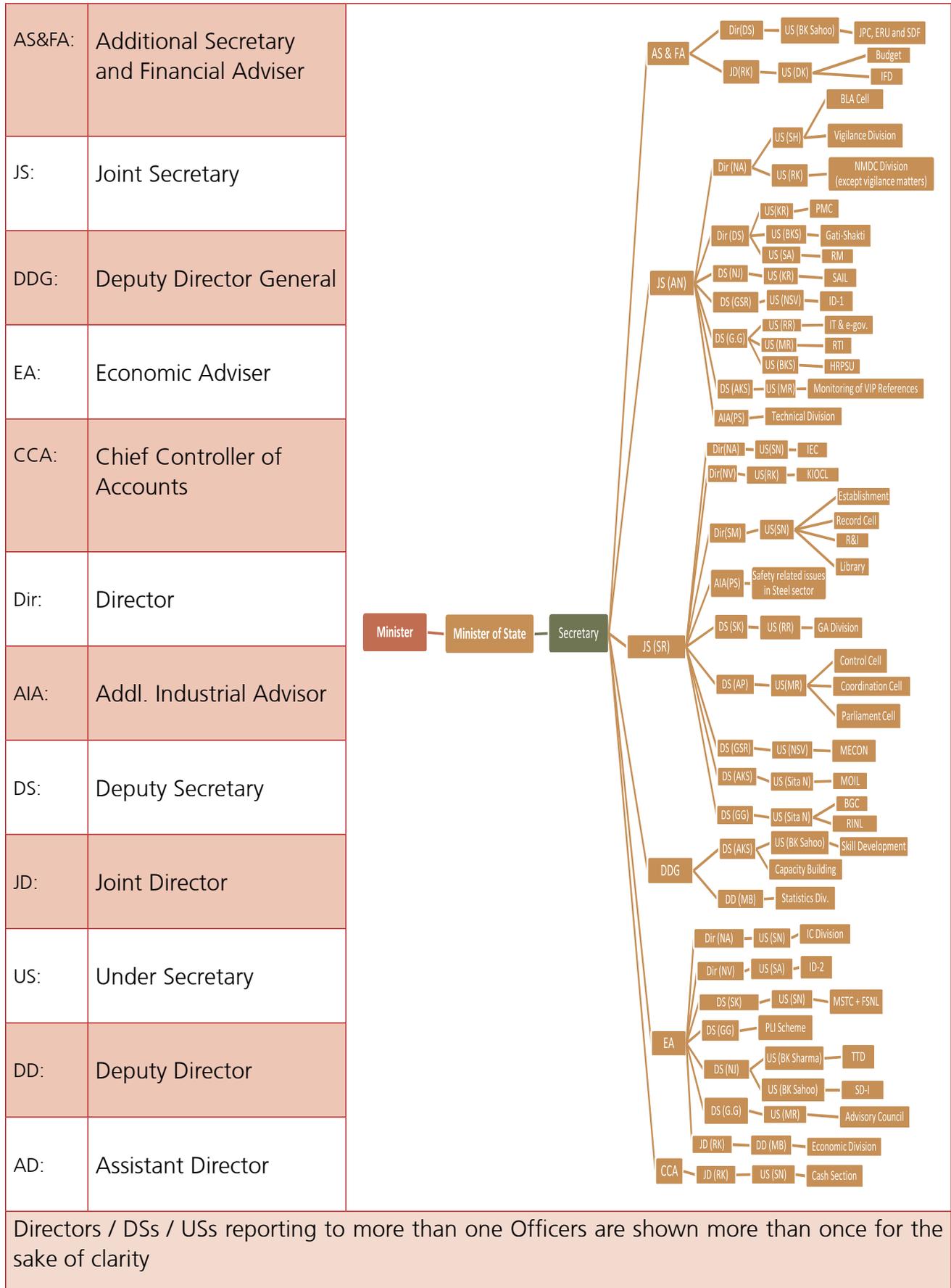
- Capacity, stock, production data of all steel producing units
- Domestic Retail Market Prices of major categories of iron and steel
- Export and Import data of pig iron, sponge iron, finished steel, scrap
- Consumption data features in the database as a derived item
- FOB, CIF Prices and landed cost of select steel items
- Reserves, production, export, import, price data of 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:**

<b>S. No.</b>	<b>Name of the Company</b>	<b>Headquarters</b>	<b>Major Subsidiaries</b>
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)	<b>EIL, BSLC</b>  Hal Plot No.428/3855 at Mouza, Goutam Nagar, Jayadev Nagar, Lewis Road, Nagewar Tangi Odisha Khordha Odisha – 751002 India  <b>OMDC</b>  SAIL Office, Ground Floor, Plot No. 271, Bidyut Marg, Shastri Nagar, Unit – IV, Bhubaneswar, Odisha - 751001
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 31<sup>st</sup> March, 2024



# 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 2<sup>nd</sup> 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 10<sup>th</sup> 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.

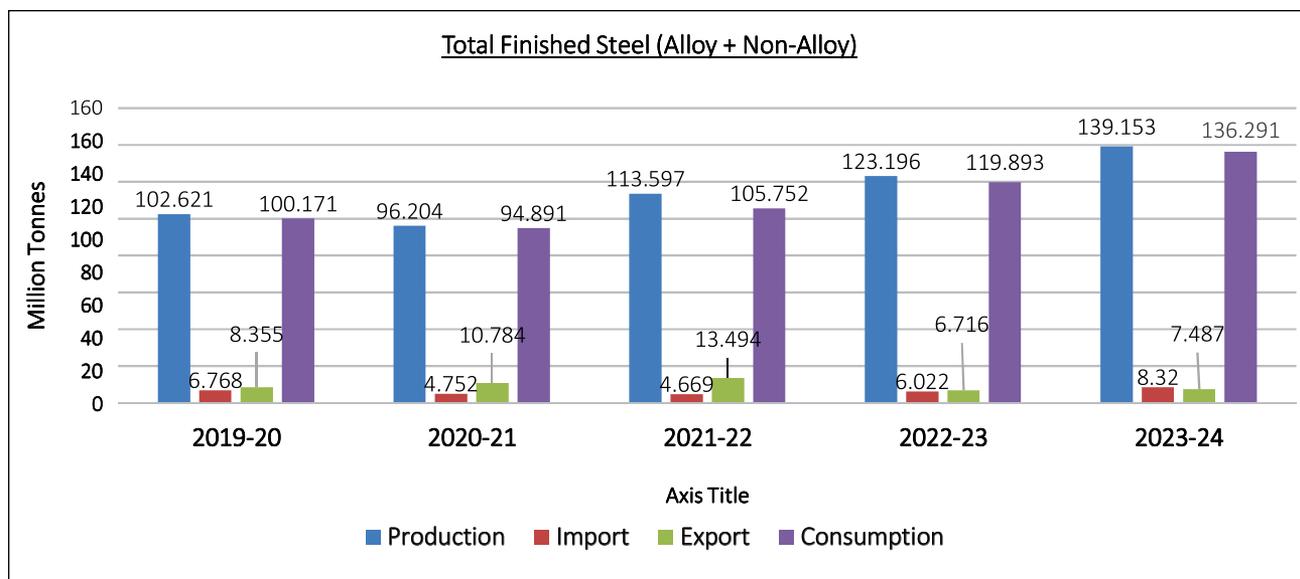
**3.1.4** The rapid pace of growth of the industry and the observed market trends called for certain guidelines and framework. Thus, the concept of the National Steel Policy was evolved with aim to provide a roadmap of growth and development for the Indian steel industry. The National Steel Policy (NSP) 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:

Year	Total Finished Steel (alloy + non-alloy) (Million Tonnes or MT)			
	Production	Import	Export	Consumption
2019-20	102.621	6.768	8.355	100.171
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

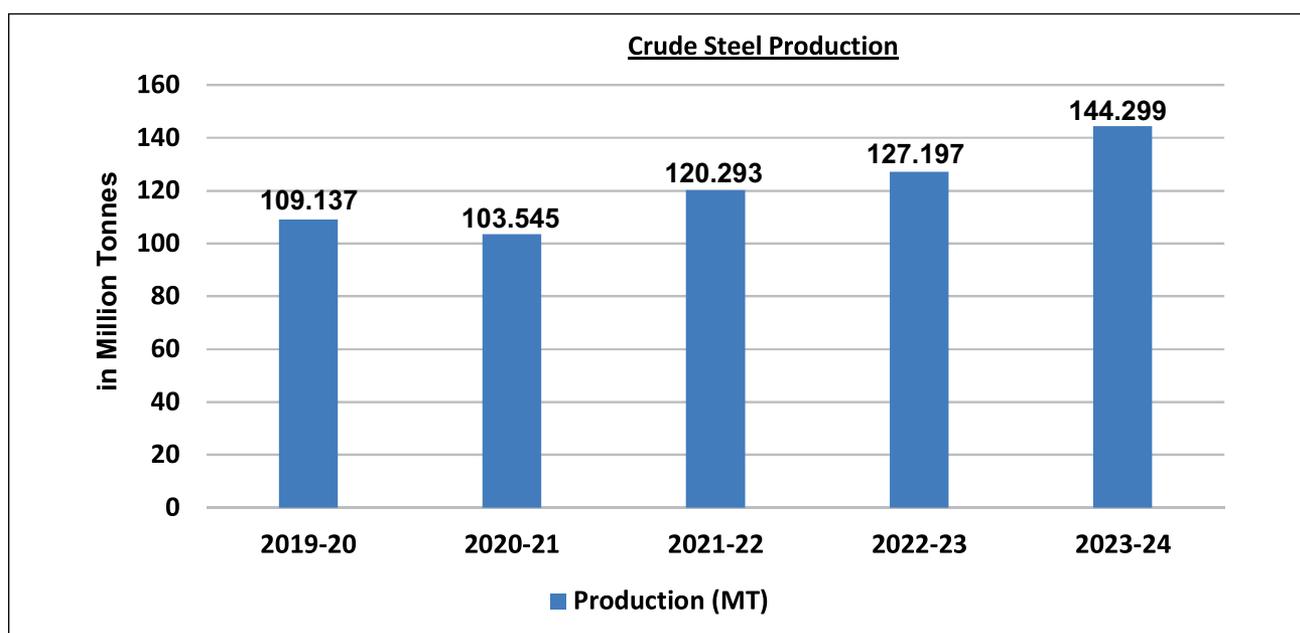
Source: JPC



**3.2.2** Data on crude steel production, capacity and capacity utilization during the last five years is given in the table below:

Year	Crude steel		
	Capacity (MT)	Production (MT)	Capacity Utilization (%)
2019-20	142.299	109.137	77
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	81

Source: JPC

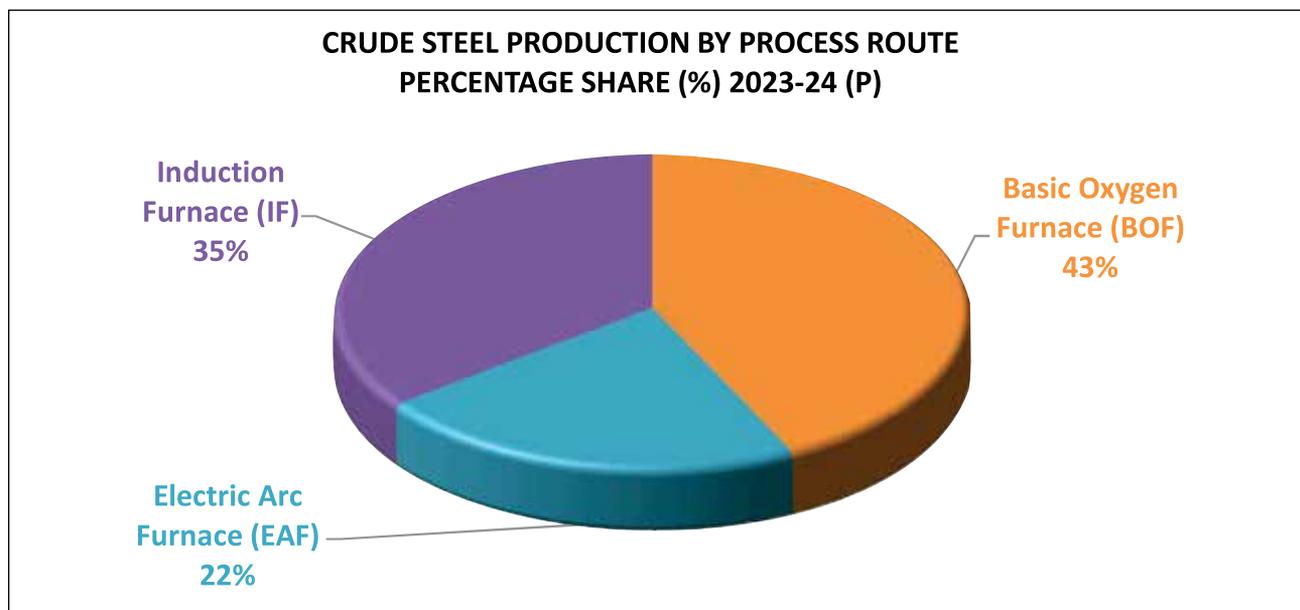


- Crude Steel production grew from 109.137 MT in 2019-20 to 144.299 MT in 2023-24.
- Such growth in production was driven by capacity expansion, from 142.299 Million Tonnes (MT) in 2019-20 to 179.515 MT in 2023-24, during this five-year period.
- Domestic consumption of Total Finished Steel (alloy + non-alloy) was at 136.291 MT in 2023-24 as against 100.171 MT in 2019-20.
- Export of Total Finished Steel (alloy + non-alloy) during 2023-24 stood at 7.487 MT as compared to 8.355 MT in 2019-20; import of Total Finished Steel (alloy + non-alloy) during the same year stood at 8.320 MT as compared to 6.768 MT in 2019-20.
- India was a net importer of Total 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
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

Source: JPC

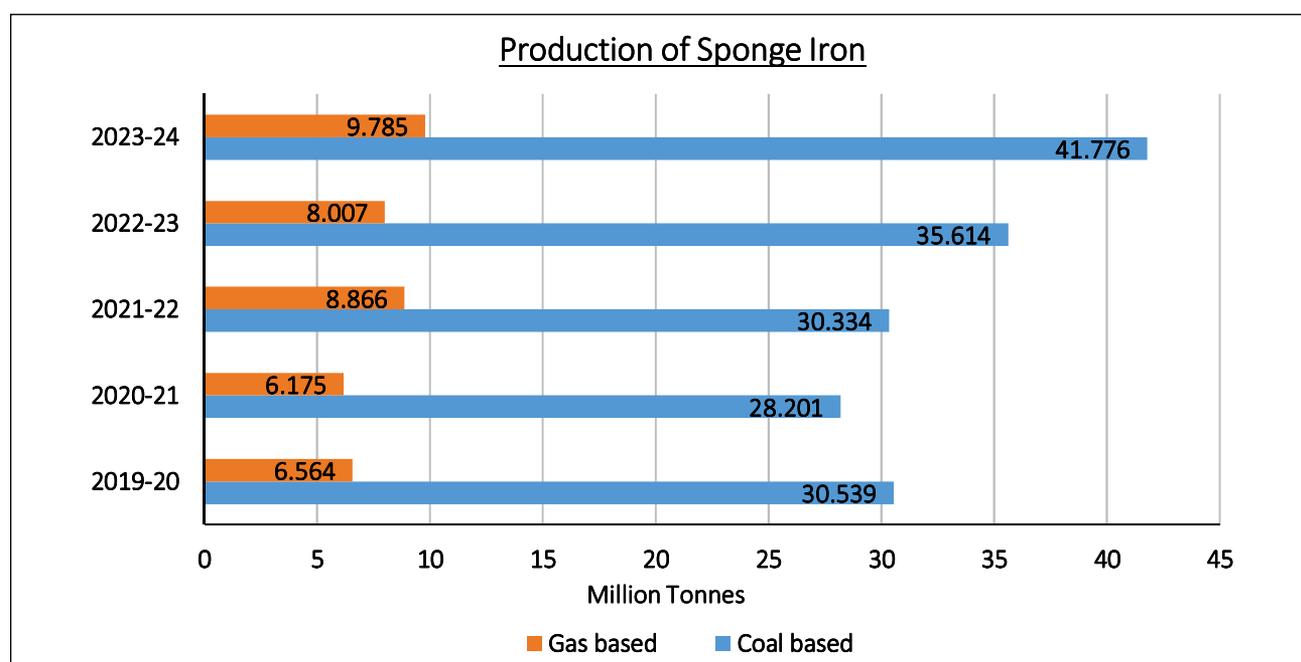


**3.2.4** India is also a leading producer of Sponge Iron with a host of coal based units located in the mineral-rich states of the country. Over the years, the coal based route has emerged as a key contributor and accounted for 81% of total sponge iron production in the country in 2023-24.

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 for the last five years:

Year	Production of Sponge Iron (MT)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Coal based	30.539	28.201	30.334	35.614	41.776
Gas based	6.564	6.175	8.866	8.007	9.785
<b>Total</b>	<b>37.102</b>	<b>34.376</b>	<b>39.200</b>	<b>43.621</b>	<b>51.560</b>

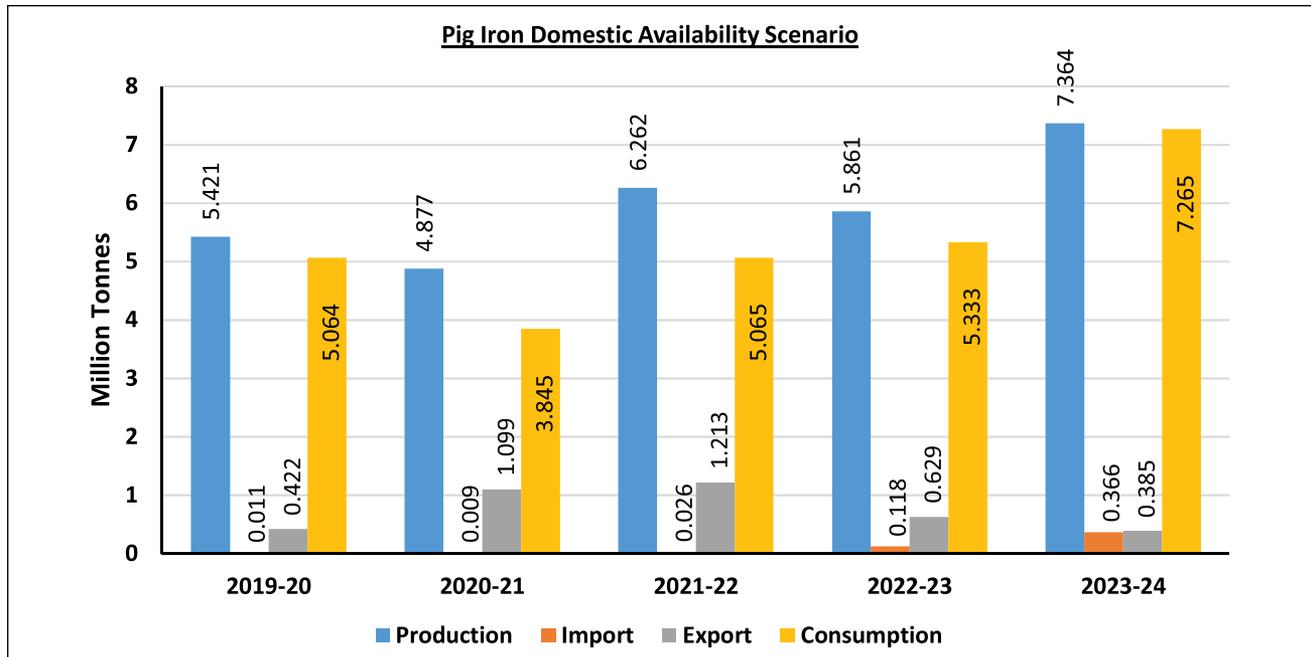
Source: JPC



**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 for the last five years:

Year	Pig Iron Domestic Availability Scenario (MT)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Production	5.421	4.877	6.262	5.861	7.364
Import	0.011	0.009	0.026	0.118	0.366
Export	0.422	1.099	1.213	0.629	0.385
Consumption	5.064	3.845	5.065	5.333	7.265

Source: JPC



### 3.3 Global ranking of Indian steel

World's Crude Steel production stood at 1892.2 MT during January-December 2023, approximately same as the figure for 2022, based on provisional data released by the World Steel Association in 'World Steel in Figures 2023' publication. During this period, Chinese Crude Steel production reached 1019.1 MT, registering no change over the previous year. China remained the largest Crude Steel producer in the world, accounting for 54% of world's Crude Steel production during this period. India was the 2<sup>nd</sup> largest Crude Steel producer of Crude Steel.

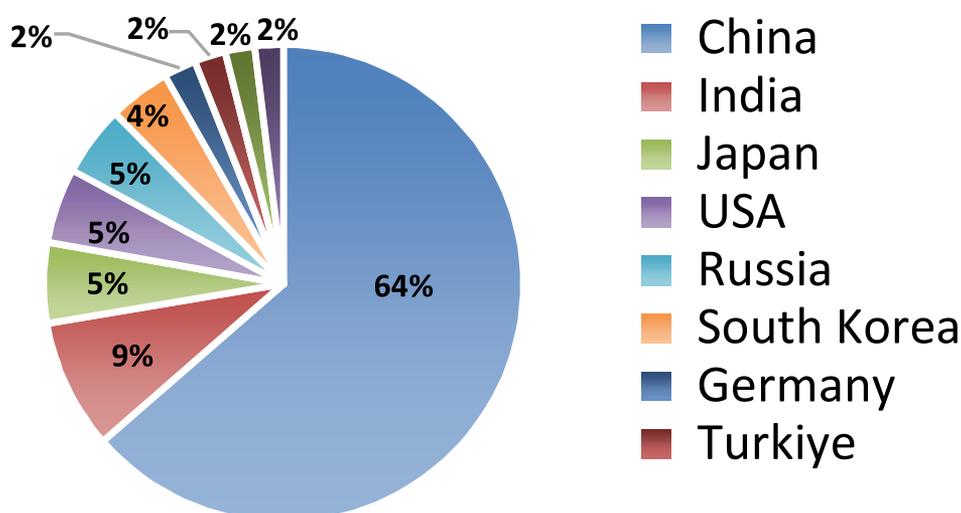
The global scenario is as under:

World Crude Steel Production January-December 2023*			
Rank	Country	Qty (MT)	% change over the same period of last year
1	China	1019.1	0.0
2	India	140.8	12.3
3	Japan	87.0	-2.5
4	USA	81.4	1.1
5	Russia	76.0	6.0
6	South Korea	66.7	1.4
7	Germany	35.4	-4.1
8	Turkiye	33.7	-4.0
9	Brazil	31.8	-6.7
10	Iran	31.0	1.3
	<b>Top 10</b>	<b>1602.9</b>	<b>0.9</b>
	<b>World</b>	<b>1892.2</b>	<b>0.1</b>

Source: World Steel Association release in 'World Steel in Figures 2023' publication;

\*provisional;

### Percentage Share of Countries in Crude Steel Production during Jan-Dec 2023 (%)



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

Indian steel scene: 2023-24		
Total Finished Steel (alloy+non-alloy)	Quantity (MT)	% change**
Production	139.153	13
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

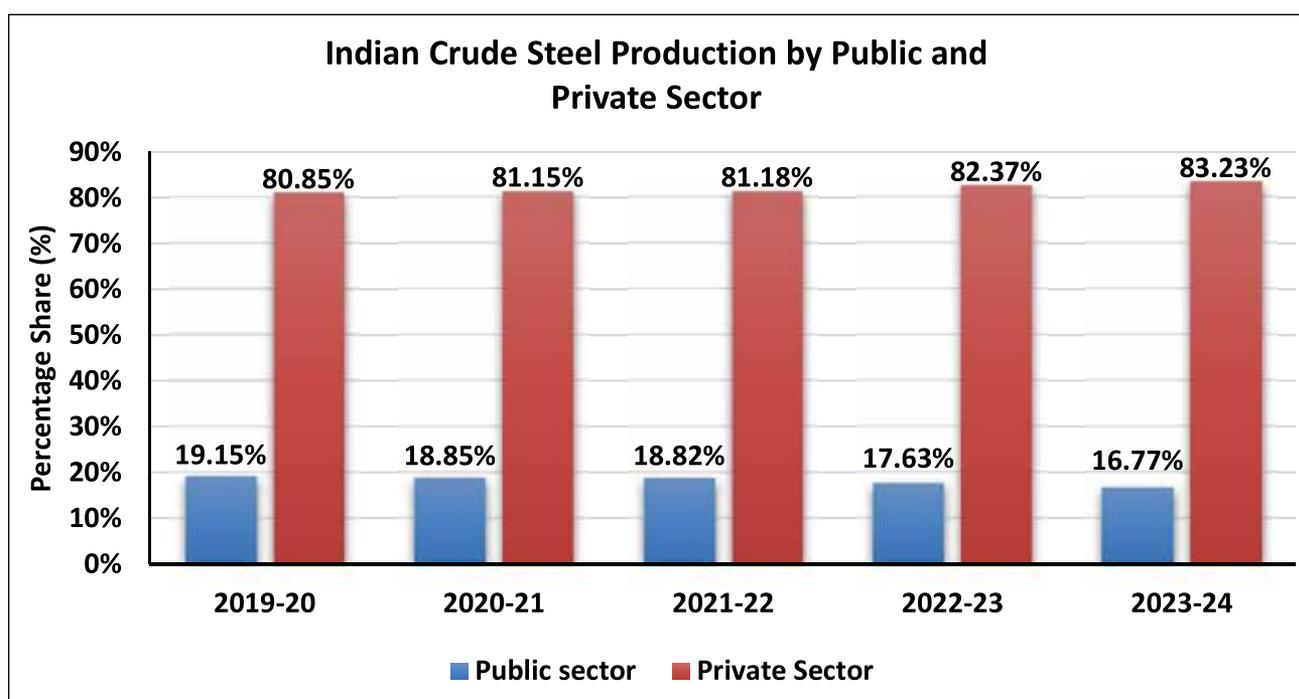
With several expansion projects at different stages of implementation, the future of the Indian steel industry is optimistic. The data pertaining to production, consumption, import, export etc. of steel sector are at **Annexure III-XI**.

### 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 during the last five years:

Indian Crude Steel Production						
Sector	Unit	2019-20	2020-21	2021-22	2022-23	2023-24
Public Sector	MT	20.905	19.515	22.636	22.429	24.192
Private Sector	MT	88.232	84.030	97.658	104.768	120.107
<b>Total Production</b>	<b>MT</b>	<b>109.137</b>	<b>103.545</b>	<b>120.293</b>	<b>127.197</b>	<b>144.299</b>
Share of Public Sector	%	19	19	19	18	17

Source: JPC



### 3.6 Annual Plan 2023-24

The Annual Plan of the Ministry on the basis of the Revised Estimates 2023-24 is to the tune of Rs.10,372.69 crores. This includes Internal and Extra Budgetary Resources (IEBR) of Rs.10,358.81 crores and Gross Budgetary Support (GBS) of Rs. 13.88 crores, as detailed in the table below:

#### Outlay for Annual Plan 2023-24

(Rs. in crore)

Sl. No.	Name of the CPSE/Organisation	IEBR	GBS	Total
<b>A. Schemes of CPSEs</b>				
1.	Steel Authority of India Ltd.	6000.00	0.00	6000.00
2.	Rashtriya Ispat Nigam Ltd.	683.00	0.00	683.00
3.	NMDC Ltd	1769.00	0.00	1769.00
4.	NMDC Steel Ltd.	1300.00	0.00	1300.00

Sl. No.	Name of the CPSE/Organisation	IEBR	GBS	Total
5.	KIOCL Ltd.	146.78	0.00	146.78
6.	MOIL Ltd.	294.88	0.00	294.88
7.	MECON Ltd.	15.72	0.00	15.72
8.	MSTC Ltd.	110.00	0.00	110.00
9.	Ferro Scrap Nigam Ltd.	20.00	0.00	20.00
10.	SRCL	19.43	0.00	19.43
	<b>Total-A</b>	<b>10358.81</b>	<b>0.00</b>	<b>10358.81</b>
<b>B. Scheme of Ministry of Steel</b>				
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	6.52	6.52
13.	Production Linked Incentive Scheme for Specialty Steel in India	0.00	2.36	2.36
	<b>Total-B</b>	<b>0.00</b>	<b>13.88</b>	<b>13.88</b>
	<b>Grand Total: A+B</b>	<b>10358.81</b>	<b>13.88</b>	<b>10372.69</b>

### 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 2023-24, Ministry of Steel has released a total amount of Rs. 294.3 lakhs to multiple organization. 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 2023-24 under the aforesaid scheme are at **Annexure-XV**.

# STEEL POLICIES AND RECENT INITIATIVES

## 4.1 National Steel Policy (NSP) 2017

NSP 2017 aims to Micro Small and Medium Enterprises (MSME), 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 producers 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) Cost-effective and quality steel destination**

145 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.**

In addition to the above, the Government is also 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 8<sup>th</sup> 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 29<sup>th</sup> May, 2019 and on 31<sup>st</sup> December, 2020. The salient features of the Policy areas 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 PSUs 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/- crores (approx.).

### **4.3 Steel Import Monitoring System (SIMS) for import data dissemination**

The Steel Import Monitoring System (SIMS), effective from November 1, 2019, ensures the availability of granular data in regard to Indian steel import in public domain through prior registration on SIMS portal. SIMS has enabled the domestic industry to plan their pricing and production strategy and helped the country move towards Aatmanirbhar Bharat in steel making.

### **4.4. Enhancing the scope of the Quality Control Orders on Steel**

Ministry of Steel gave major thrust to Steel Quality Control Order (SQCO) from 2015 onwards thereby banning substandard/ defective steel products to ensure that only quality steel conforming

to the relevant BIS standards is made available to the end users. So far the Ministry of Steel has implemented Quality Control Orders (QCO) on 145 Steel and Steel products/Indian Standards, encompassing diverse steel grades (carbon steel, alloy steel and stainless steel).

QCO now covers raw material as well as goods and articles made up of steel such as stainless-steel pipes and tubes, laminations/stampings/ cores of transformers, products of tin plate and tin free steel etc. in the notification to prevent circumvention of the Steel Quality Control Order.

A dedicated portal has been developed to process the applications for seeking clarification / exemption as regards applicability of SQCO on a particular grade of steel in a time bound and transparent manner.

## 4.5 Key Initiatives

### 4.5.1 Production Linked Incentive (PLI) Scheme for Specialty Steel

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 on 17.03.2023 with 27 selected companies having 57 applications. This Scheme will attract an investment commitment of Rs. 29,530 Crore with capacity addition of 24,780 thousand tonne in five years.

### 4.5.2 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.

### 4.5.3 Decarbonization in steel sector

Ministry of Steel is continuously engaging with the stakeholders from the steel industry and the concerned stakeholder Ministries/ Departments such as Ministry of Environment, Forests and Climate Change (MoEF&CC), Ministry of Power, Bureau of Energy Efficiency (BEE), Ministry of New and Renewable Energy (MNRE), NITI Aayog etc. to achieve net zero emissions by 2070. Detailed discussions on decarbonization and improvement of resource efficiency in Steel Sector were also held in meetings of Consultative Committees of Parliament on “Transition towards Low Carbon Steel-Green Steel on 6<sup>th</sup> May, 2022” and “Roadmap for Circular Economy in Steel Sector” on 1<sup>st</sup> July, 2022”. Further, Ministry of Steel hosted a session on the 6<sup>th</sup> Day of COP 27 event in Sharm-El-Sheikh, Egypt on 11<sup>th</sup> November, 2022 wherein discussion was held on the issues of reducing carbon emissions hinging on technologies such as Green Hydrogen in steel making, Carbon Capture, Storage and Utilization (CCUS), Best Available Technologies on Energy Efficiency as well as transition to Renewable Energy.

#### 4.5.4 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.

#### 4.5.5 Interactive Session on the implementation of Industry 4.0 in the Indian Capital Goods Sector especially SAMARTH Centers

The interactive session chaired by Shri Nagendra Nath Sinha, Secretary (Steel), focused on the integration of Industry 4.0 within the Indian steel sector, particularly in secondary steel industries and SAMARTH Centers. Key discussions included the need for technological adoption, collaboration with startups, and innovative approaches to powder production led by IISc Bangalore. BHEL's advancements in integrating legacy machines and SAIL's digital transformation efforts were highlighted, along with NMDC's digital roadmap and proposals for collaboration with IISc.

The session concluded with strategic initiatives for the steel industry's advancement through Industry 4.0, emphasizing the importance of clear blueprints, wise partner selection, and awareness generation. The concept of "digital champions" was introduced to lead digital initiatives, and the potential role of MHI, C4i4, IISc, and the Ministry of Steel in producing a film to showcase technological advancements was discussed.

### 4.6 Other Initiatives:

#### 4.6.1 Raw Material Security for the steel sector

Raw material is a critical enabler for ensuring sustained growth in iron and 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 along with Logistic Ministries and the concerned State Governments.

#### Iron ore

- As per 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.
- Ministry of Mines has constituted a Committee to look into the policy intervention required to create a conducive environment for low grade iron ore beneficiation. Ministry of Steel is a member of the said committee.

## Coal

The entire demand of coking coal is not met from domestic production as the supply of high quality coal/ coking coal (low-ash-coal) in the country is limited. 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 resulted in import of 58.12 MT coking coal in 2023-24. The Indian Steel Industry has been largely dependent on imported coking coal.

Taking into account that Coking coal is a major cost factor in steel production, Ministry of Steel is making efforts to reduce the import bill on coking coal by diversifying the import destinations, maximizing use of pellets to reduce coke requirement, Beneficiation of iron ore to increase in iron content etc. A Memorandum of Understanding (MoU) has been signed by the Minister of Steel, Government of India and the Minister of Energy, Russian Federation on Cooperation regarding coking coal, which is used in steel making. The MoU will benefit the Indian steel sector by diversifying the sources of term commitment of supply of high quality coking coal to India (up to 40 MT till 2035).

### 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.

### 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 authorised auto dismantling centres in India for scrapping of unfit ELVs in scientific and environmentally sound manner. MMRPL has set-up seven Vehicle Scrapping Centres/Registered Vehicles Scrapping Facilities (RVSFs) in Greater Noida, Chennai, Indore, Ahmedabad, Hyderabad, Guwahati and Bengaluru. MMRPL has recycled 21,000 vehicles equivalent to about 14,500 tonnes of ferrous scrap, in turn savings of 21,800 tonnes of iron ore, 8,000 tonnes of coal and 875 tonnes of limestone till 31<sup>st</sup> March 2024.

#### **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. 10,525.84 crores in FY 2022-23. During the FY 2023-24, Steel CPSEs achieved a CAPEX of Rs. 10,026.45 crores against the target of Rs.10,358.81 crores. The CAPEX target of Steel CPSEs for the FY 2024-25 is Rs. 10,325.30 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.

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 PSUs. The steel PSUs 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

Procurement of goods and services through GeM by Ministry of Steel and its CPSEs has increased significantly over the year with the value of orders upto 31<sup>st</sup> March, 2024 at Rs. 14891.32 crore as against the target of Rs. 13406.00 crore for the FY 2023-24 which is 11.08% higher.

#### 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. 98% of the payment during April, 2023 to March, 2024 has been made within 30 days. During April, 2023 to March, 2024, Steel's CPSEs have made a payment of Rs. 7511.85 crores to MSMEs.

#### 4.6.8 Meetings of the Consultative Committee for the Ministry of Steel

**4.6.8.1** A Meeting of the Consultative Committee for the Ministry of Steel was held at Parliament House Annexe, New Delhi on 28<sup>th</sup> April, 2023 on **"Logistics: Steel Sector"**. Discussions were held on challenges in the Logistics for Steel Sector. The committee was informed that the logistics cost in India is one of the highest in the world. To reduce this cost, utilisation of newer modes of transport such as slurry pipelines is being explored by steel companies. Also, transportation by inland waterways is estimated to reduce the cost by 300 % compared to roadways and 30% compared to railways. Ministry of Steel is also taking up with the Ministry of Environment, Forests and Climate Change (MoEFCC) for easy clearances for slurry pipelines along with conveyor transport to reduce the environmental impacts. In addition, Ministry of Steel has on-boarded itself on the PM GatiShakti National Master Plan Portal and has uploaded Geo-locations of 1982 steel units and all the iron-ore and manganese ore mines in the country. 22 critical infrastructure gaps have been identified and have been taken up with line Ministries. This Ministry has been engaging with Railways to resolve many of the issues including ensuring rake availability for steel sector, RoW issues for slurry pipelines, fast-tracking of critical infrastructure projects and so on.

**4.6.8.2** Another meeting of the Consultative Committee for the Ministry of Steel was held at Parliament House Annexe, New Delhi on 24<sup>th</sup> July, 2023 on **"Status of Mutation, digitization and encroachment of land parcel of Steel PSEs"**. During the meeting, Chairman outlined the importance of having a clear possession over the land stating that any expansion plan of CPSE is depended upon availability of land. The review in this direction at Ministry level was therefore started. The land management exercise was divided into three parts, first establishing clear ownership on land parcel through mutation/reconciliation in revenue records, second digitization of land records and third ensuring removal of encroachments. With this initiative, all the land related records of CPSEs are now in digital form and mostly geo-mapped. 70% of land parcel of steel CPSEs are mutated. Efforts are being made to complete mutation of the rest at the earliest.

**4.6.8.3** Next meeting of the Consultative Committee for the Ministry of Steel was held at Parliament House Annexe, New Delhi on 23<sup>rd</sup> November, 2023 on **"Branding of Indian Steel"**. During the meeting, it was apprised that the exercise for introducing Made-in-India Logo on

steel products was initiated in June-July 2022 in coordination with Department for Promotion of Industry and Internal Trade (DPIIT) and Quality Council of India (QCI). The Pilot scheme, which was started with two companies was extended to all the integrated steel producers (ISPs). Ministry of Steel is the first Ministry to initiate and complete the basic work for branding exercise.



*Hon'ble Union Minister of Steel Shri Jyotiraditya M. Scindia chairing the Consultative Committee Meeting*

**4.6.8.4** Another meeting of the Consultative Committee for the Ministry of Steel was held at Parliament House Annexe, New Delhi on 16<sup>th</sup> January, 2024 on **“NMDC Steel Limited (NSL), Nagarnar”**. The committee members were informed by the Chairman that the plant was commissioned on 24.08.2023, when the first coil was rolled out, within 9 days of production of hot metal from the blast furnace, which was a record in itself. NMDC Steel Limited was dedicated to the nation by Hon'ble Prime Minister of India on 3<sup>rd</sup> October, 2023. Built at a cost of around 23,000 crores, one of the biggest blast furnaces in India with a capacity of 4,500 cu. m. and NSL is extremely environmentally friendly having zero liquid discharge.

**4.6.9** Ministry of Steel hosted a **“Chintan Shivir”** in New Delhi, on 15<sup>th</sup> December, 2023, in presence of Hon'ble Union Minister of Steel, Shri Jyotiraditya M. Scindia. Deliberations were held on issues viz. Carbon Border Tax Adjustment Mechanism (CBAM) and Use of Artificial Intelligence in steel sector. Hon'ble Steel Minister emphasized the importance of adopting and enlarging the application of Artificial Intelligence Technologies in the steel sector. He encouraged the Indian steel fraternity to embrace the mantra of Reform, Perform and Transform to traverse the long road ahead to reach the destination of green transformation. Secretary (Steel) also expressed that the steel sector needs to capitalize on the present challenge of the CBAM by European Union to ensure rejuvenation of the demand so that Indian export economy is strengthened. AI experts from steel industry explained that there are many examples of simple yet extremely

effective solution that are deployed in the steel sector improving productivity optimizing energy consumption, safety, applications for simulation of operations and consumed within a steel plant, condition based monitoring using sensors and robotics, predictive maintenance etc.



*Hon'ble Union Minister of Steel Shri Jyotiraditya M. Scindia during Chintan Shivir*

## PUBLIC SECTOR

### 5.1 Introduction

The companies under the Ministry of Steel have performed well in the last five years. Profit After Tax (PAT) of the Companies under the Ministry of Steel was around Rs. 2812.12 crores during the year 2023-24 (Prov.). The details are at **Annexure-XII(A)**. The contribution to Central and State Government exchequer by way of GST, dividend etc. was around Rs. 42733.23 crores during the year 2023-24 (Prov.). The details 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.



*Converter at Bokaro 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 31.03.2024, 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.104545 crore during FY'24 and Rs. 103729 crore during FY'23. The Profit After Tax (PAT) was Rs.3688 crore during FY'24 and Rs.2733 crore during FY'23.

### 5.2.3 Production Performance

(in Million Tonne)

SAIL	2021-22	2022-23	2023-24
Hot Metal	18.733	19.409	20.496
Crude Steel	17.366	18.291	19.240
Saleable Steel	16.896	17.246	18.437

### 5.2.4 Raw Material

In the Q4'22-23 (January 2023-March 2023), SAIL fulfilled its entire iron ore demand for its Steel Plants by generating 9.00 Million Tonnes(MT) of iron ore from its captive mines. Additionally, the output of fluxes (Limestone and Dolomite) from captive mines during the Q4 of the FY 2022-23 amounted to 0.54 MT. Furthermore, during Q4 of the FY 2022-23, SAIL's captive collieries produced 0.10 MT of raw coking coal and 0.17 MT of raw non-coking coal, including middlings.

In the FY 2023-24 (April 2023-March 2024), SAIL fulfilled its entire iron ore demand for its Steel Plants by generating 34.34 MT of iron ore from its captive mines. Additionally, the output of fluxes (Limestone and Dolomite) from captive mines during the FY 2023-24 amounted to 2.02 MT. Furthermore, during the FY 2023-24, SAIL's captive collieries produced 0.47MT of raw coking coal and 0.72 MT of raw non-coking coal including middlings.

### 5.2.5 Washery's Performance

In the Q4'22-23, SAIL's washery at Chasnalla, processed a combined quantity of 0.34 MT of raw coking coal sourced from SAIL's coal mines and procured from CIL sources. From this raw coal processing, an output of 0.16 MT of clean coal was generated.

In the FY'23-24, SAIL's washery at Chasnalla, processed a combined quantity of 1.20 MT of raw coking coal sourced from SAIL's coal mines and procured from CIL sources. From this raw coal processing, an output of 0.48 MT of clean coal was generated.

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

In the Q4'22-23, the sales volume of Iron Ore Fines/Dump Fines/Tailings from SAIL mines was 0.20 MT.

In the FY'23-24, the sales volume of Iron ore Fines/Dump fines/Tailings/Lump from SAIL mines was 1.16 MT.

#### Highlights of achievement:

- SAIL's Mines achieved highest ever total mineral production of 36898 Thousand Tonnes during FY 2023-24 surpassing the previous record of 36479 Thousand Tonnes set in 2021-22.
- In accordance with the notifications released by the Ministry of Environment, Forest and Climate Change (MoEFCC) via S.O. 4458(E) on October 12, 2023, SAIL has joined the Green Credit Programme (GCP) and has promptly applied for two plantation blocks, spanning 25 hectares and 10 hectares in the state of Chhattisgarh.
- With the intervention of the Ministry of Steel, SAIL successfully commenced dispatches of manganese ore at the 6.9 Square Mile lease of Bolani Mine in August 2023. This made it an operational lease, where manganese mining had been halted since 1980. Additionally, SAIL began mining operations at the Kalwar Iron Ore Mine in February 2024, following its grant in 1975.

#### 5.2.7 Manpower

The Manpower strength of SAIL as on 31.03.2024 was 55,989 (Executive 10289 and Non-Executive 45,700).

#### 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 and facilities are under operation, stabilization and ramp up.

#### 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 2023-24, are as follows:

- Replacement of converter vessels, trunnion rings, support system and Installation of secondary emission control system for three converters in SMS-II under AMR Schemes at BSP.
- Provision of alternate source of water to BSP from Bharda Konari Anicut on deposit basis through Water Resources Department, Government of Chhattisgarh.
- Installation of New CO Gas Holder at DSP.
- Installation of 1250 TPD Oxygen Plant on BOO Basis at DSP.
- Rebuilding of COB#4 at DSP.
- Extension of FG Bay and other Associated Facilities for enhancing of storage of Billets and Blooms and dispatch facilities at CCP at DSP.

- Construction of 30 MLD Sewage Treatment Plant at RSP Township.
- Installation of 1000 TPD Oxygen Plant on Construct, Operate and Maintain (COM) Basis at RSP.
- Installation of Power Infrastructure and other Associated Activities at Taldih Mines of Odisha Group of Mines, Rourkela Steel Plant.
- Reconstruction of unused Stove No. 4 in BF#2 at BSL.
- Revamping of Old sub systems of BF#3 at BSL.
- Rebuilding of COB-6 at BSL.
- Replacement of Central Compressor Plants (CCP-I and CCP-II) by installation of Compressed Air Station at BSL.
- Replacement of remaining 04 Sets of Battery Cyclones with 04 ESPs in Sinter Plant-1 at BSL.
- Engagement of MDO at Tasra OCP.
- Installation of 4<sup>th</sup> Stove in BF-5 at ISP.

### 5.3 Rashtriya Ispat Nigam Ltd. (RINL)

Rashtriya Ispat Nigam Limited (RINL), a Navratna PSE, is the corporate entity of Visakhapatnam Steel Plant – the country's first shore-based Integrated Steel Plant at Visakhapatnam, Andhra Pradesh, registered under the Companies Act, 1956 and has its registered office at Visakhapatnam, Andhra Pradesh.

RINL has an 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) and Garbham Mines (Manganese) in Andhra Pradesh and Madhram Mines (Dolomite) in Telangana State. RINL also has mines for quartzite and river sand at Kintadain, Andhra Pradesh.

RINL is marketing its products through a wide marketing network of 5 Regional offices, 20 Branch Sales Offices and 20 Stock yards which cater to the delivery requirements across the country.

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

#### 5.3.1 Capital Structure

RINL is a wholly owned CPSE under the administrative control of Ministry of Steel. The authorized share capital of the company is Rs.8,000 crore and issued/ subscribed/fully paid up shares is Rs.4,889.85 crore as on 31.03.2024.

### 5.3.2 Financial Performance

RINL registered a turnover of Rs.23,224 crore (prov.) and the company made a Net Loss of Rs.4,451 crore (prov.) during the financial year 2023-24.

### 5.3.3 Production Performance

(Unit: '000 t)

Production	2021-22	2022-23	2023-24
Hot Metal	5,774	4,407	4,701
Crude Steel	5,272	4,137	4,411
Saleable Steel	5,138	3,960	4,213

### 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 from NMDC and auctions/tenders. Coking Coal is sourced from global suppliers.

### 5.3.5 Manpower

The Manpower strength of RINL as on 31.03.2024 was 13,536 (Executives 4,930 and Non-Executives-9,146).

## 5.4 NMDC Ltd.

NMDC Limited is a "Navratna" CPSE under the Ministry of Steel, Government of India, primarily engaged in the business of exploring minerals and developing mines to produce raw materials for the industry. It is also expanding its activities towards steel making and other value-added products.

NMDC operates the large mechanized iron ore mines in the country at Bailadila (Chhattisgarh) and Donimalai (Karnataka). The Diamond Mine of NMDC is situated at Panna (Madhya Pradesh), Sponge Iron Unit of NMDC is situated at Paloncha, Telangana and 1.2 MT capacity Pellet Plant is in Karnataka.



*Aerial view of Kirandul*

### 5.4.1 Capital Structure

The Authorized share capital of the company is Rs.400 crore. The paid-up equity share capital is Rs.293.07 crore as on 31.03.2024, out of which 60.79% is held by the Government of India and the balance 39.21% by the financial institutions / banks / individuals / employees etc.

### 5.4.2 Financial Performance

The Company recorded turnover of Rs. 21,294 crore in the financial year 2023-24. The post-tax net profit for the year was Rs. 5,632 crore.

### 5.4.3 Production Performance

The details of the actual production are given below:

Items	2021-22	2022-23	2023-24
Iron Ore (in MT)	42.19	40.82	45.10

### 5.4.4 Manpower

The manpower strength of NMDC as on 31.03.2024 was 5630.

### 5.4.5 Major Expansions / Initiatives:

- 3.0 MTPA Integrated Steel Plant at Nagarnar, near Jagdalpur, Dist. Bastar, Chhattisgarh has been commissioned and dedicated to nation by the Hon'ble Prime Minister of India on 03.09.2023.
- NMDC has taken up construction of Slurry Pipeline project which consists of 2.0 MTPA Pellet Plant at Nagarnar, 2.0 MTPA Ore Processing Plant at Bacheli and 135 Km Slurry Pipeline from Bacheli to Nagarnar and its Auxiliary systems in the state of Chhattisgarh. All packages like Slurry pipeline laying package, Slurry Pump house package, Technological package of Pellet Plant at Nagarnar, Ore Processing Plant at Bacheli and Main Substation Packages are awarded and works are in progress at site. The overall progress of the project is 57% as on 31.03.2024.
- NMDC has taken up Installation of 12.0 MTPA Screening Plant -III at Kirandul Complex, Bailadila, Chhattisgarh. Major packages like Dry Circuit Package, Wet Circuit Package, RWLS Package, Substation Package, Building Packages are awarded and work is in progress at site. The overall progress of the project is 55% as on 31.03.2024.

Installation of Rapid Wagon Loading System (RWLS) is completed and No-Load trials for RWLS package is also completed and Load trials are under progress.



*Panorama view of Kirandul of NMDC*

- NMDC is also in the process of augmenting its production and evacuation capacity by installing the following additional facilities:
  - ❖ **Construction of 5<sup>th</sup> Screening line** in existing Screening Plant and Up-gradation of downhill conveyor system at deposit-5, Bachel Complex, Bailadila, Chhattisgarh is in progress at site. The overall progress of the project is 95.10% as on 31.03.2024. Commissioning of 5<sup>th</sup> Screening line has been completed and the same has been taken into production in the month of December 2023. Upgradation of downhill conveyor is in progress.



*Panorama view of Bachel of NMDC*

- ❖ **Installation of 7.0 MTPA Screening and Beneficiation Plant-II at Donimalai Complex, Karnataka:** NMDC has obtained all the necessary statutory clearances like Environment Clearance (EC), Forest Clearance (FC), Consent to Establish etc. for the project. Tender for the main technological is under finalization for award of work.
- ❖ **Construction of New Crushing Plant and Downhill Conveyor System for Dep-14 and 11C, Kirandul:** Environment Clearance is in progress. Tender for the project has been floated and is in evaluation stage.
- ❖ **Doubling of Kirandul:** Kottavalasa line from Kirandul to Jagdalpur (150 km approx.) is being executed by East Coast Railways on deposit basis funded by NMDC and overall progress for this work is 86.20%. Total 106 km doubling from Jagdalpur to Dantewada is commissioned and opened to traffic, Kamlur to Dantewada 12.36 km is likely to be completed in April 2024, Kirandul to Bacheli 9.5 km is likely to be completed by May, 2024. Balance 21.98 km doubling from Bacheli to Kamlur is planned to be completed by January, 2025. Out of sanctioned Rs. 1500 Crore fund (maximum), NMDC released Rs. 1400 Crore so far and balance Rs. 100 Crore shall be released in phases based on work progress.
- ❖ **Solar Projects of NMDC:** As a part of Government of India (Gol) initiatives, NMDC is planning to set up Solar Power Plant at SIU, Paloncha (80 MW) and at Panthal, Jammu (20 MW) to achieve the target of '**Net Zero**' by 2040. In this, regard, NMDC is in the process of preparing Pre-Feasibility Report (PFR).
- ❖ **Township Projects of NMDC:** NMDC is in the process of constructing a residential township of 365 units at Kirandul, Chhattisgarh. The overall progress of the project is 20% as on 31.03.2024.

## 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.

### 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 31.03.2024, out of which 60.79% is held by the Government of India and the balance 39.21% by the financial institutions/banks / individuals / employees etc.

### 5.5.2 Financial Performance

The Company recorded turnover of Rs.3,049 crore in the financial year 2023-24. The post-tax net profit(+)/Loss(-) for the year was (-Rs.1560.32) Crore.

### 5.5.3 Production Performance

The details of the actual production are given below:

(In tonnes)

Items	2021-22	2022-23	2023-24
Hot Rolled Coils	-	-	493503
Liquid Steel	-	-	517862
Hot Metal	-	-	966468
Pig Iron	-	-	308085
Gross Sinter	-	-	1509712
Gross Coke	-	194314	1063173

\*DCCO declared on 31.08.2023

#### 5.5.4 Capacity Expansion

- 3.0 MTPA Integrated Steel Plant at Nagarnar, near Jagdalpur, Dist. Bastar, Chhattisgarh was envisaged in 2001
- The project started in 2011 with zero date being 03.03.2011
- NSL was demerged from NMDC with effect from 13.10.2022
- Coke oven battery operation commenced on 28.10.2022
- 1<sup>st</sup> Hot metal tapped from Blast Furnace on 15.08.2023
- 1<sup>st</sup> 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.

#### Solar Projects of NSL

As a part of Government of India (GoI) initiatives, Floating Solar Power Plant and Rooftop solar plant installation has been envisaged at NSL, Nagarnar. The joint site visit has been completed with SECI and NSL is in the process of preparing Pre-Feasibility Report (PFR) to decide the capacity of the Solar Plant and other modalities.

#### 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.

#### 5.5.5 Manpower

The manpower strength of NMDC as on 31.03.2024 was 1607.

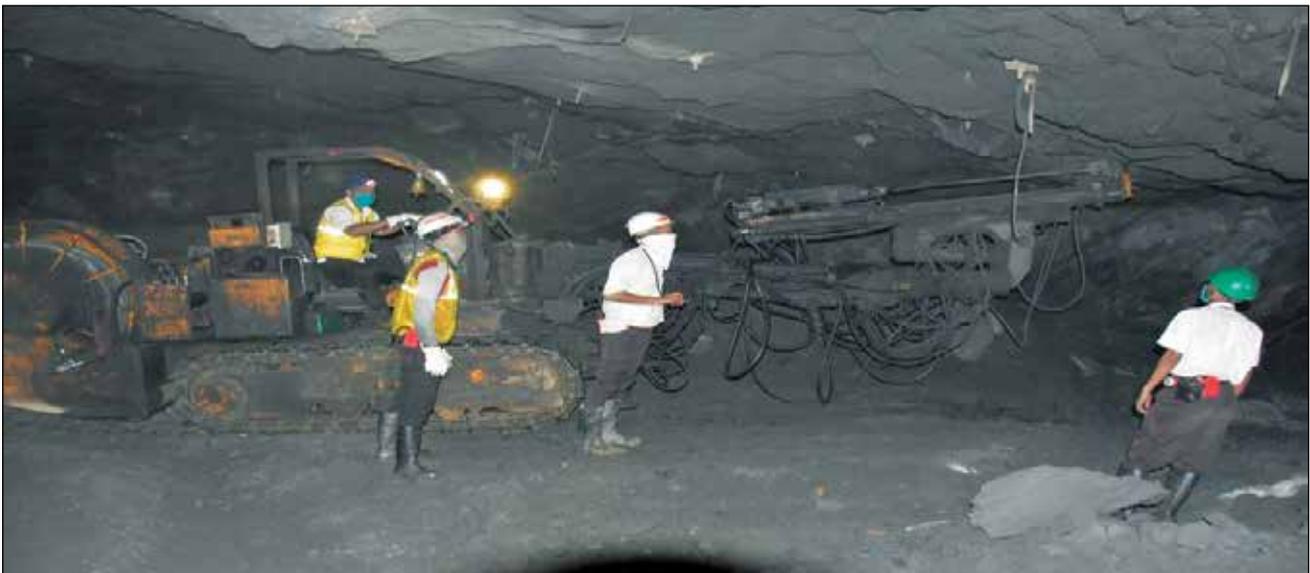
#### 5.6 MOIL Ltd.

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. Six mines are worked through underground method and rest four 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 1880.505 Ha. Leased area as on 31.03.2024 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.

MOIL has entered into a 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. Now, MOIL is in the process of signing Joint Venture (JV) agreement with GMDC in terms of MoU.



*Machineries working at MOIL's underground mines*

Similarly, MOIL has also signed MOU with Chattisgarh Mineral Development Corporation Limited to explore the possibilities of mining of manganese and associated minerals in the State of Chattisgarh. Government of Chattisgarh has reserved 218 sq.km. in Balrampur District for exploration. MOIL is going to start exploration shortly.

MOIL has also signed tripartite MOU with Government of Madhya Pradesh and Madhya Pradesh Mineral Development Corporation Limited (MPMDC) to explore the manganese-bearing areas in the state of Madhya Pradesh. Government of Madhya Pradesh has reserved 487 Km<sup>2</sup> and 850 Km<sup>2</sup> areas in Chhindwara and Balaghat districts respectively for exploration. MOIL has completed exploratory core drilling in Chhindwara area where manganese ore has been established in one area. Exploration in Balaghat District is under process.

### 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 31<sup>st</sup> March, 2024. MOIL got listed on 15<sup>th</sup> 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
Total Income	1515.57	1418.52	1542.96
Profit Before Tax	523.29	334.45	387.00
Profit After Tax	376.98	250.59	293.34

### 5.6.3 Production Performance

Parameter	2021-22	2022-23	2023-24
Manganese Ore (Lakh Metric Tonne)	12.31	13.02	17.56
E.M.D. (Metric Tonne)	1202	1100	1413
Ferro Manganese (Metric Tonne)	10245	8660	10163

### 5.6.4 Manpower

The manpower strength of MOIL as on 31.03.2024 was 5480.

## 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 and 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 and 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.

MECON is a wholly owned Government Company.

### 5.7.1 Financial Performance

(Rs. in crores)

Parameter	2021-22	2022-23	2023-24* (Prov.)
Turnover	586.67	854.97	926.76
Operating Profit	(-) 18.92	(-) 43.48	8.33
PBT	19.54	34.01	51.05
PAT	13.70	31.01	51.05

\*Provisional April'23 to March'24

### 5.7.2 Manpower

The manpower strength of MECON as on 31.12.2023 was 1029.

## 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 (SAIL). In the year 1982-83, the Corporation was converted into an independent PSU under administrative control of Ministry of Steel.

MSTC Limited was the canalizing agency for import of carbon steel melting scrap, sponge iron, hot briquetted iron and re-rollable scrap till February 1992. It was also the canalizing agency for import of old ships for breaking, Import of such items were de-canalised with effect from August 1991. Thereafter, MSTC was engaged in the selling agency business for sale of scrap materials through tenders and auctions.

**Recycling:** MMRPL, a 50:50 JV between MSTC, and M/s Mahindra Accelo (brand name CERO) is a pioneer in setting up authorised auto dismantling centres in India for scrapping of unfit

ELVs inscientific and environmentally sound manner. MMRPL has set-up seven Vehicle Scrapping Centres/Registered Vehicles Scrapping Facilities (RVSFs) in Greater Noida, Chennai, Indore, Ahmedabad, Hyderabad, Guwahati and Bengaluru.

### 5.8.1 Capital Structure

As on 31-03-2024, the authorized capital of the company is Rs.150.00 crore and paid-up capital is Rs.70.40 crore. Government of India holds 64.75% shareholding and the balance 35.25% shareholding is held by the public and others.

### 5.8.2 Physical Performance

(Rs. in crore)

Parameter	2021-22	2022-23	2023-24 (Prov.)
E-Commerce	136425.55	301361.05	141387.50
Trading	379.35	229.45	199.07
<b>Total Volume of Business</b>	<b>136804.90</b>	<b>301590.50</b>	<b>141586.57</b>

### 5.8.3 Financial Performance

(Rs. in crore)

Parameter	2021-22	2022-23	2023-24 (Prov.)
Turnover**	470.64	324.72	318.69
Operating Profit	224.76	319.98	279.52
Profit Before Tax (PBT)	220.08	313.48	272.67
Profit After Tax (PAT)	200.09	239.23	204.92

\*\*Turnover decreasing due to discontinuing of trading activity having risk.

### 5.8.4 Manpower

The manpower strength of MSTC as on 31.03.2024 was 290.

## 5.9 KIOCL Ltd.

KIOCL Limited is a Schedule-A, Mini Ratna Category-I CPSE under the Ministry of Steel was incorporated on 02.04.1976 with an objective to mine and 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 mini-Blast Furnace Unit at Mangaluru. The Company has its captive berth and ship loading facilities at Mangaluru. The manufacturing facilities are 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.

### **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 Rs.24.44 crores (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, Company has set up a 1.3 MWp capacity Solar power plant at the BFU 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.

### **Coke Oven Plant**

Ministry of Environment, Forest and Climate Change, Government of India vide letter dated 27.02.2020, had accorded Environmental Clearance for setting up of Non-Recovery Coke Oven Plant (0.18 MTPA) with Cogen Captive Power Plant (10 MW) and Ductile Iron Spun Pipe (DISP) (0.2 MTPA) within the existing premises of Blast Furnace Unit at Mangalore. KIOCL has floated Global Tenders and Domestic Tenders for the main packages. Coke Oven Plant is under construction and expected to start commissioning by 31.03.2025.

### **Installation of Vertical Pressure Filters**

KIOCL has commissioned 04 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.

### **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 Ltd, under the provisions of section 17A (2A) of MMDR Act, 1957. On 13.02.2017, DMG, Government of Karnataka sought for statutory clearance viz. Mining Plan, Environmental Clearance and Forest Clearance.

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 Rs.329.18 Crores 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.

Company is under process to get amendment to Environment Clearance conditions for transportation / despatch of ore through road till conveyor system is installed.

Government of Karnataka issued Government Order on 11.04.2023 for diversion of forest land for Devadari Iron Ore Mine. Further, O/o PCCF (FC) and Nodal Officer, Forest Department Bangalore issued instructions to DCF, Ballari on 02.12.2023 for executing Forest Lease Agreement for handing over of forest land to commence mining activities. Work is under process to get the approval of Competent Authority, to execute and register the Forest Lease Agreement.

M/s MECON Ltd., has prepared Techno-Economic Feasibility Report (TEFR) with estimated Project Cost of Rs.1783.89 Crores for Devadari Iron Ore Mine (DIOM) Project. M/s IFCI Ltd carried out financial due diligence of the TEFR. With due approval and recommendations of KIOCL Board, proposal seeking approval from PIB, Government of India for the DIOM Project is submitted through Ministry of Steel, Government of India.

Work is under process to get the approval of Competent Authority for Devadari Iron Ore Mine Project with estimated Project Cost of Rs. 1783.89 Crores.

Indian Council of Forestry Research and Education (ICFRE), MoEF&CC, Dehradun, prepared and 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 for approval. On approval of R&R Plan by CEC and approval of Project by Government of India, the same shall be implemented.

### 5.9.1 Physical Performance

(In Million Tonnes)

Parameter	2021-22	2022-23	2023-24
Production of Iron Ore Pellets	2.030	1.510	1.905
Sales of Iron Ore Pellets	2.072	1.460	1.790

### 5.9.2 Financial Performance

(Rs. in Crores)

Parameter	2021-22	2022-23	2023-24 (Provisional and Un-audited)
Revenue from Operations	3006.45	1543.42	1853.57
Profit Before Tax (PBT)	411.03	(-)122.76	(-)82.76
Profit After Tax (PAT)	313.41	(-)97.67	(-)82.76

### 5.9.3 Manpower

The manpower strength of KIOCL Limited as on 31.03.2024 was 603.

## 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 2023-24 (in MTPA)
1	JSW Steel Ltd.	28.08
2	Tata Steel Ltd	20.6
3	ArcelorMittal Nippon Steel (AM/NS) India	9.6
4	Jindal Steel and Power Ltd.	9.6
5	Jindal Stainless Ltd	1.88
6	Vedanta (ESL Steel Ltd.)	1.87

Source: JPC

### 6.3 JSW Steel Ltd.

JSW Steel is the flagship business of the diversified, US\$ 23 billion JSW Group. As one of India's leading business houses, JSW Group also has interests in energy, infrastructure, cement, paints, sports, and venture capital. Over the last three decades, JSW Steel has grown from a single manufacturing unit to become India's leading integrated steel company with a capacity of 29.7 MTPA in India and the USA. Its next phase of growth in India will take its total capacity to 43.5 MTPA by September 2027. The Company's manufacturing unit in Vijayanagar, Karnataka is the largest single location steel-producing facility in India.



*JSW Vijayanagar Plant*

JSW Steel has always been at the forefront of research and innovation. It has a strategic collaboration with global leader, JFE Steel of Japan, enabling JSW to access new and state-of-the-art technologies to produce and offer high-value special steel products to its customers. These products are extensively used across industries and applications including construction, infrastructure, automobile, electrical applications, and appliances.

JSW Steel is widely recognized for its excellence in business and sustainability practices. Some of these recognitions include World Steel Association's Steel Sustainability Champion (consecutively from 2019 to 2024), Leadership Rating in CDP climate change disclosure (A-) and in CDP Water Disclosure (A) for 2023, Deming Prize for TQM for its facilities at Vijayanagar (2018), and Salem (2019). It is now part of the World Dow Jones Sustainability Index (DJSI) and Emerging Markets during 2023, along with inclusion in the S&P Global's Sustainability Yearbook (consecutively from 2020 to 2023).

JSW Steel's SEED project has been awarded with Energy Transition Change makers at COP28. In December 2023, JSW Steel was ranked 8<sup>th</sup> among the top 35 world-class steelmakers, according to the 'World-Class Steelmaker Rankings' by World Steel Dynamics (WSD), based on a variety of factors. As a responsible corporate citizen, JSW Steel's CO<sub>2</sub> emission reduction goals are aligned with India's Climate Change commitments under the Paris Accord. JSW Steel aims to reduce its CO<sub>2</sub> emissions by 42% from its steel-making operations by 2030 and has committed to achieve net neutral in carbon emission for all operations under its direct control by 2050.

JSW Steel aims to lead the energy transition by powering steel-making operations entirely by renewable energy by 2030. Other sustainability targets include achieving no-net loss in biodiversity at the operating sites by 2030, substantially improving air quality and reducing water consumption in all operations and maintaining Zero Liquid Discharge. JSW Steel has emerged as an organization with a strong cultural foundation. It is certified by Great Places to Work (2021, 2022 and 2023) as well as ranked as one of the Best Employers among Nation Builders (2023) and one of India's Best Workplaces in Health and Wellness (2023).

## 6.4 TATA STEEL GROUP

Tata Steel group is among the top global steel companies with an annual crude steel capacity of 35 million tonnes per annum. It is 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 ~US\$30.3 billion in the financial year ending March 31, 2023. 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 77,000. Tata Steel has announced its major sustainability objectives including Net Zero Carbon by 2045. The Company has been on a multi-year digital-enabled business transformation journey intending to be the leader in 'Digital Steel making by 2025'. The Company has received the World Economic Forum's Global Lighthouse recognition for its Jamshedpur, Kalinganagar and Ijmuiden Plants.

Tata Steel aspires to have 25% diverse workforce by 2025. The Company has been recognised with the World Economic Forum's Global Diversity Equity and Inclusion Lighthouse 2023. The Company has been a part of the DJSI Emerging Markets Index since 2012 and has been consistently ranked amongst top 10 steel companies in the DJSI Corporate Sustainability Assessment since 2016.

Tata Steel's Jamshedpur Plant is India's first site to receive ResponsibleSteel™ Certification. Subsequently, its Kalinganagar and Meramandali plants have also received the certification. In India, Tata Steel now has more than 90% of its steel production from ResponsibleSteel™ certified sites.

It has received Prime Minister's Trophy for the best performing integrated steel plant for 2016-17, 2023 Steel Sustainability Champion recognition from worldsteel for six years in a row, 2022 'Supplier Engagement Leader' recognition by CDP, Top performer in Iron and Steel sector in Dun and Bradstreet's India's top 500 companies 2022, Ranked as the 2023 most valuable Mining and Metals brand in India by Brand Finance, 'Most Ethical Company' award 2021 from Ethisphere Institute, and 'Best Corporate for Promotion of Sports' recognition at the Sportstar Aces Awards 2024.

It has received 2023 ERM (Enterprise Risk Management) Award of Distinction at the RIMS ERM Conference 2023, 'Masters of Risk' – Metals and Mining Sector recognition at The India Risk Management Awards for the seventh consecutive year and Award for Excellence in Financial Reporting FY20 from ICAI, among several others.



*TATA BSL Plant Overview*

## 6.5 ArcelorMittal NIPPON Steel (AM/NS) India

ArcelorMittal Nippon Steel (AM/NS) India is a joint venture between ArcelorMittal and Nippon Steel, two of the world's leading steel manufacturing organisations. A leading integrated flat carbon steel producer with state-of-the-art downstream facilities in India, the company operates its flagship steel plant in Hazira, Gujarat, with a crude steel capacity of 9 Million Tonnes Per Annum (MTPA). It produces a fully diversified range of flat steel products, including value-added steel, and has a pellet capacity of 20 million one. The company's expansion efforts to increase the capacity of its flagship plant to 15 MTPA are progressing well. It aims to expand its overall capacity across the country to 40 MTPA by 2035.

The company's first Climate Action Report published in February has outlined immediate actions to accelerate and decarbonise India's development. AM/NS India targets a reduction in emissions intensity by 20% by 2030 with a roadmap of actions across the entire value chain of steel production that includes bolstering renewable energy to meet 100% of grid electricity needs, increasing the recycling of scrap steel over two fold through new and enhanced sourcing and processing facilities, driving operational efficiencies with new technology improvements.

With over 600 steel grades – many substituting imports, it serves an array of contemporary industries (agriculture, automotive, infrastructure, defence, energy, etc.) and contributes to the Aatmanirbhar Bharat initiative. Accredited by Indian and global industry bodies, its portfolio encapsulates hot rolled coils / sheets / plates, cold rolled coils / sheets, galvanized coils / sheets, pre-painted galvanized coils / sheets, pipelines, etc. The company is committed to advancing with a sustainability approach, aiming to create 'Smarter Steels, Brighter Futures'.

## 6.6 Jindal Steel and Power Limited

Jindal Steel and Power (JSP) Limited is one of India's leading business houses, with a significant presence in steel, mining, power and infrastructure. With business operations spanning across India, Africa, and Australia, JSP has firmly established itself as a global player in its chosen industries.

JSP has achieved remarkable growth in recent time. Currently, the company offers a product portfolio that caters to markets across the entire steel value chain and contributes to realising the vision of Make in India. The organisation's focus on innovation, enhancing capabilities and enriching lives continue to propel its growth and commitment towards building a self-reliant nation.

### India Operation

Chhattisgarh – Raigarh, Raipur and Punjipatra

Odisha – Angul, Barbil, Kaisa and Tensa

Jharkhand – Patratu

### Production Capacity

Steel Production Capacity – 9.6 MTPA

Pellet Production – 9 MTPA

Rebar Mill – 2.4 MTPA

Iron Ore Production from Indian Assets – 10.6 MTPA

Coal Production Capacity from Indian Assets – 15.4 MTPA

Coal Production Capacity from Global Assets – 7.4 MTPA



*JSPL'S Angul DRI Plant*

## 6.7 Vedanta (ESL STEEL LTD)

Located in Siyaljori village, Bokaro, Jharkhand, Vedanta ESL Steel Limited, a subsidiary of Vedanta Group, stands as a leading steel manufacturer with a 1.5 Million Tonnes Per Annum (MTPA) integrated steel plant. Specializing in pig iron, billets, TMT bars (branded as V-XEGA), wire rods (branded as V-WIRRO), and ductile iron pipes (branded as V-DUCPIPE), ESL Steel operates in harmony with environmental standards, integrating global expertise for top-tier products. Formerly known as Electrosteel Steels Limited, ESL Steel, under Vedanta's management since 2018, boasts a robust infrastructure comprising Blast Furnaces, Steel Melting Shop, Mills, Ductile Iron Pipe, and more, enabling the production of TMT Bar (0.7 MTPA), Wire Rod (0.5 MTPA), Ductile Iron Pipe (0.22 MTPA) and Pig Iron (0.3 MTPA) of impeccable quality and reliability. Vedanta ESL Steel Limited is embarking on ambitious brownfield expansion plans aimed at doubling its capacity from 1.5 MTPA to 3 MTPA. This enhancement plan reflects the company's commitment to growth and innovation in the steel industry.

## 6.8 Jindal Stainless Limited (JSL)

Jindal Stainless Limited is India's leading stainless steel manufacturer with an annual capacity of 3 million tonnes per annum. The company, with its flagship production units in Hisar, Haryana, and Jajpur, Odisha, was earlier split into two entities, Jindal Stainless and Jindal Stainless (Hisar). Both companies were merged into Jindal Stainless in March 9, 2023. The company has a total of 10 stainless steel manufacturing and processing facilities in India and abroad, including Spain and Indonesia, and a worldwide network in 15 countries.

Established in 1970, 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'

Hisar facility is the world's largest producer of stainless steel strips for razor blades and India's largest producer of coin blanks, serving the needs of Indian and international mints. A rail-linked Inland Container Depot (ICD) is also operational at its Jaipur facility. The company operates a fleet of 40 rakes and 150 road trailers, with regular train services from the Vizag Port.



*Aerial View of Jindal Stainless (Jaipur) Limited*

In line with the vision of the Government of India for an Atmanirbhar Bharat, Jindal Stainless has supplied material for various national projects, including supplying high-strength alloy steel used in the motor casing of India's third lunar mission, the Chandrayaan-3; the Mumbai Metro project; the Regional Rapid Transit System (RRTS) project; and India's first underwater metro line in Kolkata; among various other significant projects that aid in the cause of nation-building.

With sustainability and environmental consciousness becoming an important pillar of manufacturing practices, Jindal Stainless is committed to achieving Net Zero by 2050. Creating a sustainability roadmap to become greener and more sustainable, the company has earmarked INR 700 crore for various sustainability initiatives.

In March 2024, Jindal Stainless became the first stainless steel manufacturer to install a Green Hydrogen Plant at their Hisar facility to tackle CO2 emissions. The plant was inaugurated by the Hon'ble Union Minister of Steel and Civil Aviation, Shri Jyotiraditya Scindia. The company is set to generate over 1.9 billion units of clean electricity per annum through its wind-solar hybrid, floating and roof-top solar plants. Jindal Stainless has partnered with ReNew Power to deliver 100 megawatt (MW) round-the-clock (RTC) renewable energy. It is also in discussions to establish separate 100 MW RTC renewable energy projects at both its manufacturing units, in Jaipur and Hisar.

As a socially responsible company aiding in the government's Skill India campaign, Jindal Stainless also conducts fabricator training programmes where local fabricators are given guidance on stainless steel fabrication to enhance their skill set and expand employment opportunities. Through the Jindal Stainless Foundation, the company works towards uplifting rural communities around their plant locations in Hisar, Jaipur, and Delhi NCR, supporting them in the areas of rural development, environmental sustainability, women empowerment, skill development, preventive healthcare, and disaster risk reduction and response.

## CAPACITY BUILDING

**7.1** The Ministry has finalized a realistic Annual Capacity Building Plan for the year 2024 as a guided path in preparing its employees to possess certain demonstrable characteristics and efficiencies aligned with professional aspirations. This Plan is currently under implementation.

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, subjects like **AI/ML, MS Excel advanced, social media usage** have been included under functional competency area.

During the year 2023, the Ministry identified 3 areas for large scale intervention where it started to intervene even before the finalization of the Plan:

- i. Field visit
- ii. Behavioural and functional online courses available through iGoT Karmayogi
- iii. Introduction to Emerging Technologies (Data Analysis, AI, ML, Blockchain)

### Ministry's achievement in Capacity Building: FY 24

Sl. No.	Programme / Event organised	Month / Year	No. of participants
1	One programme was organized with the help of the faculty from SAIL MTI as a prelude to the Vigilance Awareness Week, 2023 on relevant topics e.g. Ethics and Governance, Cyber Security etc.	September, 2023	65
2	A team of officers visited to the Bokaro Steel Plant for being acquainted with the activities going on there	November, 2023	8

Sl. No.	Programme / Event organised	Month / Year	No. of participants
3	A team of officers visited to the Bhilai Steel Plant where officers from NITI Aayog and MoEFCC also participated.	December, 2023	13
4	One motivational programme 'Self-Transformation for Achieving Results (STAR)' for the Bisra Stone Lime Corporation* workers in collaboration with the Management Training Institute, SAIL	January 23, 2024 at the Rourkela Steel Plant	28

During the year 2023, the Ministry was engaged in sensitizing its employees in the area of emerging technologies through non-training interventions like organizing Chintan Shivirs, in-house discussion etc.

**The statistics of attending online courses through iGoT Karmayogi Platform: FY 24**

Sl. No.	Date/Month	No. of officers attended at least one iGoT course	List of courses attended
1.	May 26, 2023	20	Yoga Break at Workplace, Stress Management, Leave Rules, Prevention of Sexual Harassment of Women at Workplace, Office Procedure, Cyber Security and Strategy, RTI, Leave Rules, Time Management, Microsoft Word Beginners, Office Procedures, AI Using Google Bard and ChatGPT for Beginners
2.	June 29, 2023	25	
3.	July 17, 2023	35	
4.	September 6, 2023	33	
5.	January 15, 2024	95	
6.	February 20, 2024	145	
7.	March 31, 2024	151	

Apart from the intervention at the individual level, non-training intervention at the organizational level will also be envisaged by the Ministry at the next phase which would involve course development (especially for domain specific courses) with multiple stakeholders, training impact assessment (through workplace counseling, psychometric assessment etc.).

# 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 was set up as a registered society on August 18, 1987 to provide trained technical manpower, industrial services, testing facilities, consultancy services for energy efficiency and reducing pollution levels, a platform for interaction between industry and educational/research institutions and other services to the secondary steel sector. The Institute is managed by a Board of Governors which has representations from Industrial Associations, Prominent educational institutions apart from the Ministry of Steel.

#### Key activities of NISST include:

- Industrial Consultancy, Training and Skill Development.
- Energy Audits (Accreditation from Bureau of Energy Efficiency, Ministry of Power, GOI).
- Safety Inspection (Competent persons for safety inspection from Government of Punjab and UT of Daman and Diu and Dadra Nagar Haveli for safety Inspections).
- Testing Laboratories (NABL Accredited and BIS recognised Mechanical and Chemical Labs).
- Third Party Transparency Audit of proactive disclosure package under Right to Information Act 2005

NISST is working jointly with Secondary Steel Sector for undertaking cluster development programme in Iron and Steel Sector. NISST focuses its activities and efforts keeping in view the National Steel Policy. Hon'ble Secretary, Ministry of Steel, Shri Nagendra Nath Sinha visited NISST campus at Mandi Gobindgarh, Punjab on December 11, 2023. As per his directions NISST team visited 3 clusters namely Raipur, Bihar-Jharkhand and Durgapur. A meeting with Industry was also organised in Patna on March 3, 2024 to discuss the issues faced by the Secondary Steel sector in Bihar area.

NISST is working with various industry associations to widen its outreach. NISST organized 6 webinars in association with GIZ for dissemination of knowledge about Energy Efficiency in Secondary Steel Sector comprising of EAF, EIF and Rolling Mills during the period January to June 2023.

A part of UNDP project "Support to collectively respond to the climate emergency and establish resilient development pathways for sustaining Human Security and Green Transformation (JSB 2022)" was awarded to NISST. A consultative workshop on "Technologies and Financial Strategies for Secondary Steel /DRI Sector" was held at Raipur on 12<sup>th</sup> January, 2024. The workshop was

attended by more than 85 participants. The participants were explained about the project and upcoming energy efficient / low GHG emission technologies for DRI sector. Ten DRI units were selected for conducting energy audits under this project. Draft frame work for giving financial incentive has been formulated and send to UNDP for their approval.

### 8.1.2 Biju Patnaik National Steel Institute (BPNSI)

BPNSI was registered under the Societies Registration Act, 1860 and started functioning from January 1, 2002, thereafter being approved as a full-fledged Institute on February 20, 2004 by the Cabinet Committee on Economic Affairs (CCEA). The Institute was set up primarily to cater to the skilling needs of the Secondary Steel Sector, as also engage in assisting Research and Development of the sector and Technology knowledge transfer in the steel sector along the value chain. The establishment of main campus of BPNSI at Kalinga Nagar, Jajpur is under progress.

#### Highlights of the activities in 2023-24

- Board of Directors and Academic Council were reconstituted.
- A total of 15 programmes have been completed during July, 2023 and March, 2024, involving 1015 participants. The programs are structured around five focus areas that were identified by the Academic Council, viz. Iron and Steel Making including emerging technologies like AI, ML, IoT, Sustainability. Energy and Environment, Advanced Maintenance Management, Soft Skills, BIS and HS codes.
- A National Conference on Decarbonisation and Green Metals was held in collaboration with State Pollution Control Board (SPCB), Odisha on 6<sup>th</sup> and 7<sup>th</sup> February, 24, which was attended by 110 industries from Metal Sector, and was well received and helped enhancing the image of BPNSI.

## 8.2 Skill Development

With a rapid sensitivity to quality assurance and environmental sustainability, the Indian iron and steel industry aspires to unfold various technologies demanding a seamless transition of its workforce (~ 2.8 million). On this transformative path, the Ministry constituted a Task Force on Skill Development for decarbonisation of the steel sector. As per the recommendation of this Task Force, planning of a survey to identify skill gap in the secondary steel sector has been initiated by the Ministry.

To support Ministry of Skill Development and Entrepreneur (MSDE)'s flagship scheme, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), the steel CPSEs and IISSSC are playing major role to achieve targets of skilling manpower in steel sector. The training / orientation is being imparted through Short-Term Training (STT) and Recognition of Prior Learning (RPL). During the Financial Year 2023-24, 3450 employees were re-skilled and assessed by IISSSC out of which 3399 were from SAIL and 51 were from Rashtriya Ispat Nigam Ltd. NMDC has signed MoU with National Skill Development Corporation (NSDC) for Skill Development Programme and RPL certification for 1600 employees. RINL is providing Skill Development Training Program in CAD/CAM courses (6 months duration) to 15 unemployed youth.

The Biju Patnaik National Steel Institute under the administrative control of the Ministry conducted 15 Skilling Programme since July, 2023 to March, 2024 covering potential workforces and working professionals from Industries.

# 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 an 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.

### 9.2.1 R&D thrust areas

The thrust areas include:-

- Development of innovative/ path breaking technologies for utilization of iron ore fines and non-coking coal
- Beneficiation of raw materials like iron ore, coal etc. and agglomeration
- Improvement in quality of steel produced through the various routes of steel making including the Induction Furnace route
- Development of commercially viable technology for utilization of steel plant and mine wastes including LD/EAF/IF Slag
- R&D for achieving global benchmarks in Productivity, Quality, Raw material consumption, Energy consumption, Water consumption, Refractory consumption etc.
- Development of Low carbon technologies for reduction in GHG emission
- Development of innovative technology for effective recovery of waste heat in different iron and steel making processes including downstream processes

- To pursue R&D for increasing the consumption of steel
- Development of innovative solutions for addressing the challenges faced by the iron and steel industry
- To pursue R&D on any other subject of national importance concerning the Iron and Steel sector.

### 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 five years is given below:

Sl. No.	Year	Government Funding (in Rs Crore)
1	2019-20	15.000
2	2020-21	0.540
3	2021-22	4.810
4	2022-23	4.490
5	2023-24	2.943
	<b>Total</b>	<b>27.783</b>

The details of funds released during 2023-24 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 2023-24 is Rs. 5 crore and for the FY 2024-25 is Rs 7 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 2<sup>nd</sup> 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.

### 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 and is India's premier research organization in the field of ferrous metallurgy. 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 research projects encompassing the entire spectrum of iron and steel starting from raw materials to finished products, pertaining to 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 and 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.

- ❖ RDCIS has taken new initiatives towards sustainable steel making, which include experimental studies on use of biochar in coke and sinter making and carbon capture and utilization from flue gases; gainful utilization of various steel plant wastes like slag, sludge, return sinter, etc. RDCIS also focuses on higher usage of indigenous and soft coals, mineral beneficiation and pelletisation, reduction in fuel rate in blast furnace, decreasing ferro-alloy and total metallic inputs in steel making, TMCP of high strength steels and application of ML/AI models for process intensification (optimization) in entire chain of steel making. Beside these process innovations, product innovation for developing advanced steels is always the priority area of RDCIS. The Centre is also contributing significantly in various committees of Ministry of Steel, Government of India, which are 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.
- ❖ RDCIS is equipped with 6 pilot plants and good numbers of laboratories for product and process innovations.
- ❖ RDCIS, through continuous technological inputs and cutting edge R&D work, has been assisting the SAIL Plants in producing value added steel products at a competitive price. Several new products, particularly special steels, having superior product quality attributes have been developed and commercialized through concerted efforts of RDCIS, Central Marketing Organisation and SAIL Plants for meeting stringent requirement of various market segments. Principle of cost effective alloy design and optimization of process parameters were the prime considerations for development of the new market oriented products.
- ❖ SAIL as an industry partner is participating in the Ministry of Steel sponsored R&D project “Development of steel slag based cost effective eco-friendly fertilizers for sustainable agriculture and inclusive growth” undertaken through ICAR-IARI. About 32% of arable land in India is acidic. BOF slag which is rich in lime content along with micronutrient like potassium, silicon and phosphorous, can be gainfully utilised as soil fertilizer. The study is in progress at eight IARI centres across India. The R&D project will open up a promising avenue for gainful utilisation of BOF slag as a soil ameliorating agent for vast stretches of the arable acidic soil of India.
- ❖ With an aim to derive maximum benefit from the concept of “Waste to Wealth”, various R&D based studies are being taken up through in-house research, in association with other eminent research centres/academies of national repute to explore potential avenues for enhancing BOF slag utilization.
- ❖ Hydrogen has been found to be one of the potential alternatives to fossil fuel, as a reducing agent and energy provider in the iron making process, which results in no CO<sub>2</sub> emission, but has yet to find its commercial applications. Hence, SAIL is planning to undertake research in this direction by establishing a 20 TPD national pilot / demonstration project to produce DRI using 100 % hydrogen, in consortium mode, under National Green Hydrogen Mission.
- ❖ SAIL is also exploring the feasibility for production of value added products through research in Carbon Capture and Utilisation (CCU) to take care of residual emissions. Initial tests and pilot scale projects are being firmed up.

- ❖ RDCIS is working on design of suitable burners for gradual increase in use of cleaner fuel as well as for use of hydrogen as a fuel.

#### **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.
- R&D activities are divided into following core areas of the plant which are Coke making, Iron making, Steel making, Rolling and Product Development.
- Pilot oven testing was done to enable utilization of MCC, PCI coal (non coking grade of coals) for coke making and the same was used industrially in Coke Oven. A trial was carried out in R&D pilot coke oven using plastic wastes for coke making.
- RINL has registered in MANTHAN platform launched by Ministry of Steel, Government of India for which R&D department is the nodal agency. A problem statement titled "EOI for installing a set up for separation of CO<sub>2</sub> from BF gas to enrich the calorific value and a method for reusing the captured CO<sub>2</sub>" was submitted.
- A project was taken up jointly by the working group consisting members from R&D, ES&F and QATD and SMS-2 for production of Medium Carbon Ferro-Manganese using Electric Arc Furnace (EAF) of ES&F (Engineering Shops and Foundry) department. Two heats of total 5.1 tons Ferro-alloy i.e., Medium Carbon Ferro Manganese (MCFeMn) is produced successfully and used in production of EN8D grade.
- A Study on the optimization of ferro alloys addition to get the desired properties of rebars in WRM-1 is being carried out. Four (04) trial heats were made by using "Ti" as a micro alloying element for optimization of ferro-alloys addition at SMS-1 to get the desired properties of Fe550D in WRM-1 (12mm rebar). Results are encouraging.
- A study for Ferro-alloy recovery improvement project in SMS-1 is being carried out. Using aluminium lumps during tapping is suggested which helped in neutralizing the slag and decreased the oxide content within it. This improved recovery of Mn from the slag to steel.
- Feasibility study on "Utilization of ladle slag as a flux in EAF at ES&F" is being carried out. This will help in replacing lime stone and dolomite partially with co product ladle slag, helps in forming foamy slag and reduces production cost.
- A committee has been formulated to make an action plan for implementation of the CRR (Central Road Research Institute) and CGCRI (Central Glass and Ceramic Research Institute) recommendations for enhancement of LD slag utilization in VSP. Action plan for possible implementation has been formulated.
- Studies are being carried out to bring back the vacuum levels of Sinter machine 1 and 2 to optimum levels. The vacuum levels at various points of sinter machine in fan inlet, GCP inlet and outlet and other parts of the suction track will be monitored. The leakages in gas path will be identified and suitable measures will be taken to improve vacuum levels. Advantage of usage of magnetised water in granulation in sinter plant is studied.

- The department is presently functioning with a total strength of 15 including thirteen engineers.

### **NMDC Ltd.:**

The R&D center at NMDC has state-of-the-art characterization facilities including automated mineral analyser (AMA), focusing on research projects in Mineral Beneficiation, Agglomeration, and the properties of Bulk Solid Flow. A new facility has been introduced to develop technologies for the effective use of mine waste. This centre plays a crucial role in supporting both existing and future NMDC projects. Recently, it has successfully completed comprehensive studies aimed at increasing the capacity of operational projects in the Bailadila region. Moreover, the R&D center offers its specialized knowledge to SAIL for its expansion project in the Gua Mines, Jharkhand and supports private sector companies with their research requirements. The center is actively engaged in developing dry beneficiation technologies to enhance the quality of lean or low-grade iron ore and conducting research on the use of non-coking coal in iron making.

### **MOIL Ltd.:**

- ❖ MOIL has established Geographic Information System (GIS) and Remote Sensing laboratory with ERDAS, ARC GIS and Surpac software along with petrological microscope for capacity building of R&D works and for study of all operating and future mine leases for mine planning and design.
- ❖ Mine planning department has also established a Rock Mechanics lab at head office to conduct Geo technical studies of various lithology available at all Mines of MOIL.
- ❖ This will help to know various parameters of rocks which will be useful in preparation of mining plans and method of working for better safety and higher productivity. It helps to generate technical reports for onward submission to regulating authorities like DGMS, IBM, DGM etc. for safer mining operations with higher productivity.
- ❖ Mine planning department of the Company has established a Remote Sensing and Petrological Laboratory to study petrological and mineralogical characteristics of samples collected in field from different areas. This would help knowing the genesis of ore and to make use in geological reports for onward submission to various statutory authorities in DGMS, IBM, DGM, etc. The planning department is also procuring hand held XRF, XRD and DGPS instruments for analysis of field samples and also to do DGPS survey in new areas
- ❖ In accordance with proposal of the Strategic Management Group to have a trial stopping method of sub level stoping to Increase the rate of production and safety standards, CSIR-Central Institute of Mining and Fuel Research (CIMFR) has been engaged for "Evaluation of Stopping parameters, stope design, and implementation of planned sublevel stoping at Chikla-B section of Chikla Mine" This trial stoping method, if successful and economic, may open new possibilities for MOIL to modify recent stoping methods for better productivity and safety.
- ❖ Modification, Mechanization and evaluation of Modified Stopping parameters of Cut and Fill Stopping at Ukwa Mine is being carried out by Indian Institute of Technology, Banaras Hindu University (IIT-BHU) bring about positive changes and transform the age-old system of stoping at MOIL Mines.

- ❖ Studies for evaluation of support requirement in stope and stability assessment of drivages at Beldongri Mine are being carried out by CSIR- Central Institute of Mining and Fuel Research (CIMFR).

#### **MECON Ltd.:**

- ❖ **Core Areas of Research**

- Thermograph,
- Environments,
- Friction Stir Welding (FSW) materials to be used in super thermal power plant

- ❖ **Specific R&D undertaken for process and Product Development**

- Infrared Camera based Ladle Condition Monitoring system.
- Friction Stir Welding (FSW) materials to be used in super thermal power plant.

- ❖ **Present Focus areas of R&D**

- Indigenisation- Stamp Charged Coke Oven Battery,
- Coke Oven Gas Exhauster
- High Capacity CDCP and Parallel Flow Regenerative Type Lime Kiln

#### **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 (TSL):**

- ❖ **Product Research Highlights (FY 23-24):** The brief details of a few key projects ongoing in FY 24 are provided below:
  - Sensorization of Tundish for Real-Time Temperature Monitoring for Improving Productivity and Safe Operation.
  - Online Sinter Size Analysis Technique for Blast furnace.

- Real Time Rebar Counting System.
- Design and development of API X-65 Sour grade.
- 3D Printing Wire Feedstock for Additive Construction.
- High Strength Welding Consumables for Advanced High Strength Steels.
- Coiling feasibility model for down coiler in Hot Strip Mill.
- Polymer coated CRCA for Ready-to-paint application.
- Nano Hydroxyapatite (HA) for Dental Application.
- Development of hot rolled JSH590BN grade with more than 100%-hole expansion ratio.

❖ **Process Research Highlights (FY 23-24):** The brief details of a few key projects initiated in FY 24 are provided below:

- Increasing the Ball Mill throughput at Pellet Plant by deploying Surface Modifiers.
- Improvement in heat transfer coefficient in sintering.
- Pyrometallurgical processing of Low-Grade chromite overburden to extract Nickel and metal values.
- Development of value-added products from Low Grade Manganese Ores.
- SMART Solution Package For energy efficient performance Of Cooling Tower.
- Reduction in carbonization time in non-recovery coke making through use of novel catalyst.
- Selective flotation of iron ore.
- Oily bubble flotation to improve fine clean yield at coal washery.
- **Thermal Hawk:** A One Stop Solution for Real-Time Visualization inside the Blast Furnace.
- Implementation of expert system for automatic re-gradation of without order (WOO) slabs.

### JSW Steel Ltd:

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.

#### ❖ **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 treating 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.

#### ❖ **R&D Infrastructure and facilities added during FY 2023-24**

- Universal Hardness Tester
- Blaine measurement apparatus
- Cyclic corrosion test apparatus
- Rolling Contact Fatigue testing machine
- Rotating Bending Fatigue testing machine
- SEM EDS upgradation for Automatic Inclusion analysis and EBSD software upgradation.
- A total of 55 numbers of R&D projects for process improvements, energy optimization, product development and customization, and technology development have been planned in 2023-24.
- A total of 51 projects (projects relating to process, energy and product optimization) have been completed till March, 2024

#### **ArcelorMittal Nippon Steel (AM/NS) India:**

##### ❖ **Core areas of research, Present Focus areas of R&D**

- New and innovative steel product development
- Valorisation of By-products of steel plant
- Process improvements
- Research on new and local raw materials

##### ❖ **R&D Infrastructure and facilities**

- **General Purpose R&D equipment:** Optical microscopes, Scanning Electron Microscopes with EDS and EBSD, X-Ray Diffractometer, Fluorescence Infra-Red Spectroscopy (FTIR), Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES)
- **New steel grade testing:** Hysteresis loop tracer, Heat treatment furnaces, Cyclic Corrosion tester, Jmat-Pro software
- **Raw materials R&D:** Ball mill, Drum and disc pelletizers, screw classifiers, High intensity magnetic separators, Hydro-cyclones, Flotation cells, Laser particle size analysers
- **Process and By-Products R&D:** Thermocalc software, Matlab software, RDI and RI furnaces, Intensive mixers

- ❖ **Manpower** : Current Strength 20 (PhD : 3 Nos, M. Tech: 16, B.Tech: 1)
- ❖ **Specific R&D undertaken for Process**
  - Studies on minimization of ultrafine generation at Dabuna Beneficiation plant
  - Magnetic Separation Studies for Reduction of Tailing Grade Below 45% Fe at AM/NS Dabuna.
  - Improvement of Pellet Quality and its Performance at Hazira.
- ❖ **Specific R&D undertaken for Products**
  - Special steel high carbon low alloyed steel 51CrV4- for Clutch Diaphragm for automobiles
  - Automotive steel SAE1536- for two wheeler front fork
  - API quality steel X-70 with HTP concept for HSAW pipes
  - YS 380 Mpa –Steel for Axles Cover
  - YS> 500 Mpa steel for wheel rim / dscaplication in thk<2.60mm
  - Customised HSLA340+V for Two wheeler
  - Interstitial free high strength steel for automobile application (TS:>400 Mpa)
  - SGC 440 (M) grade for solar application
  - S550GD GI for solar application
  - Plates A 537 CL 2 with restricted CE 0.43 max for excellent weldability
  - Plates S960 QL for high strength structures / modular bridges
  - Abrasion resistant steel Rockstar 400 with impact toughness at -20 deg C
  - API quality steel X-70 with DWTT @ -25 deg C for line pipes
  - Structural steel S460N in heavy thickness upto 85mm.
  - Normalised rolled plates E450 for structural applications.
- ❖ **R&D for import substitution and export promotion: Following import substitute grades were commercially developed**
  - **High strength plates S960 QL for high strength structures / modular bridges:** The quenched and tempered steel is used for construction of modular bridges for Indian army.
  - **API quality steel X-70 with DWTT @ -25 deg C for line pipes:** Though API X-70 is a well established steel grade, the demand to make it tougher is increasing every year. This means producing steel with toughness at sub-zero temperature which AMNSI has successfully developed commercially.
  - High strength boiler quality plates (A 537 CL 2) with excellent weldability.
- ❖ **R&D for waste utilization**
  - **Waste utilization:** Development of Ladle Furnace Slag treatment process for recovering valuable products.

# 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.

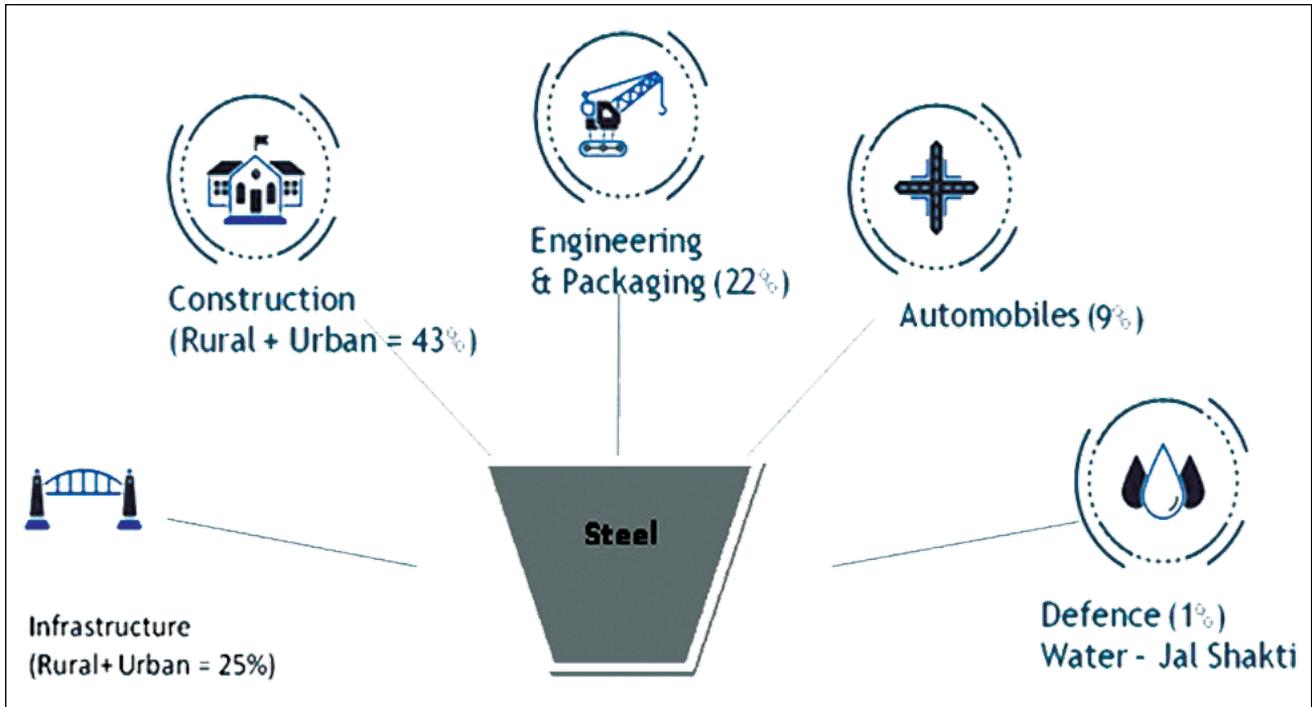
## 10.2 Steel Usage scenario in India

**10.2.1 During the last 05 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
2019-20	100.17	1.5
2020-21	94.89	-5.3
2021-22	106	11.7
2022-23	120	13.2
2023-24*	136	13.5

Source: JPC (\*provisional)

**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 FY24, the total steel consumption in the country was 136 Million Tones. 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 has planned around Rs 103 lakh crore investments 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 will help boost the infrastructure in the country and will also 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 has also launched a 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) in May, 2023. The same has been forwarded to MoRTH for their adoption in November, 2023.

**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, Pradhan Mantri Krishi Sinchayee Yojana (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)

#### Development of new products and Customer outreach

Continuous efforts are made to develop new products required by its customers. These includes:-

- New products have been developed for various applications like new grades of Hot Rolled Coil for applications in Automotive components, High strength steel for LPG cylinders etc. API grade Hot Rolled Coil for application in Oil and Gas pipeline was also developed and stabilized.
- Further, SAIL has enhanced its efforts towards increasing sales of special quality steel to consumers from the Wire Rod Mill of IISCO Steel Plant. Electrode Grades, High Tensile Grades, Cable Armour Quality have been developed and commercialized. Vacuum degassed Cold heading Quality wire rods have been developed for catering to the fastener industry.
- Bokaro and Rourkela steel plants have obtained IRS/ABS certifications for providing steel to shipyards.
- In FY 23-24, steel customer meets were organized at several locations . An Investor conclave was also organized at Lucknow during FY'23-24 with focus on Defence Corridor.

#### Efforts to enhance Availability and Reach:

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:

- In order to promote steel intensive construction, SAIL had launched its parallel flange beams under Brand name "SAIL NEX". These sections are expected to help in design flexibility and optimize costing. SAIL structural are being promoted on Tekla (BIM software) now.
- In order to enhance retail presence, especially in rural areas, SAIL supplies its reinforcement bar branded as "SAIL-SeQR" with the tagline ("Ab Nischint Ho Jaayen") and is promoted as better quality steel for safer homes. Effort is being made to promote the Brand in local vernacular too.
- For construction grade reinforcement bars (TMT), as on 1<sup>st</sup> April' 24, Retail Network under Tier-2 Distributorship scheme (for TMT) has been strengthened with 50 Distributors and 5121 Dealers. Tier-2 Retail channel contributed sales of about 1.03 Million Tonne of steel in 2023-24.

- SAIL has an E-portal ([www.sailsuraksha.com](http://www.sailsuraksha.com)) where customers can book TMT orders online and get the materials door-delivered.
- During the financial year 2023-24, about 400 Rural Workshops (named as “SAIL Gaon Ki Ore”) were held for propagation of steel usage in rural areas.
- To increase the outreach, SAIL participated in Krishi Darshan Expo at Hissar during Feb’24, conducted a Post office campaign in Kerala for Brand promotion and promotion through branding of Heritage Toy train at Darjeeling.
- In order to cater to the requirement of MSMEs and small businesses, SAIL has strengthened Tier-1 Distributorship scheme (Other specified products). There are 58 distributors in place for catering to the demand of B2B segment. Tier-1 scheme has contributed sales of 1.3 Million Tonnes in 2023-24, a growth of 190% over CPLY.
- During FY 2023-24, SAIL has supplied steel to a number of Iconic Projects of National importance, viz Kalapakkam Nuclear Project in Southern Region; Mumbai Trans Harbour Link Project, Versova Baroda Sea Link Project, Mumbai Delhi expressway (Surat- Dahod Package), Rawatbhata Nuclear Plant, Rajasthan in Western Region; Zozilla Tunnel in Sonmarg, Ganga Expressway (Meerut to Prayagraj), Delhi Amritsar Katra Highway in Northern Region; AIIMS at Deoghar, 111 Km long Broad Gauge Extension project connecting Jiribam-Tupul-Imphal through 52 tunnels and 149 bridges, Mokama Railway Bridge in Patna, Jagannath Pilgrimage Centre at Puri, in Eastern Region.
- As an initiative for showcasing steel usage, Stainless steel with customized finish suitable for Vande Bharat coaches, has been developed and supplied.

### 10.6.2 Rashtriya Ispat Nigam (RINL)

- As a part of the initiative for increasing steel consumption, bringing in the awareness of utilization of steel products and building its brand image, RINL conducts meetings at various levels at regular intervals. For promotion of steel usage in semi-urban and rural areas, promotion campaigns are being carried out in a structured manner by chalking out a calendar covering Meet of Architects, Builders and Construction Engineers (ABC Meets), Workshops on Good Construction Practices (Mason Meet), Special Steel Customers Meet and Meeting of Original Equipment manufacturers (OEMs).
- Conducting dealers meet along with RDS/Tier-II distributors to improve the brand/product awareness.
- Conducting regular customer meets chaired by Regional/HQ level wherein range of products is displayed to enhance the awareness amongst the customers.
- RINL organizes partners meet once in a year wherein all the major customers will be invited to attend and they will be taken on half a day plant visit which enhances the bonding of the customers to the RINL brands.

- v. RINL has co-sponsored steel seminars and also 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.
- vi. RINL has become a full-time member of CIDC (Construction Industry Development Council), a body set up with support of Government of India, to promote usage of Steel in Construction.
- vii. 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 the other producers for products like TMT and structural.
- viii. RINL is catering to the remote areas of the country through its on-line portal E-Suvidha. Through this portal, RINL is able to service the requirements of every corner of India through on-line digital enquiry and providing services to the doorsteps of the customers.
- ix. As part of Sales Promotion, RINL is providing free of cost Display Board, MRRP Display Board, Dealership Certificate and Product literature to the Rural Dealers.
- x. RINL is also giving a separate Promotional Incentive where the Rural Dealers take up promotional steps like Hoardings, Wall paintings, Newspaper/Cable TV Advertisement, etc.

# ENERGY, ENVIRONMENT MANAGEMENT AND CLIMATE CHANGE

## 11.1 Introduction

Environment management and energy efficiency constitute an important benchmark for evaluation of Iron and Steel Industry. The Ministry of Steel, through various schemes and regulations, is facilitating reduction in energy consumption and emission of carbon-dioxide as well as environment pollution in steel plants. In view of India's commitment made under Paris agreement to address climate change, Ministry of steel is working to decarbonizes steel industry through various green initiatives.

Some of the steps/ initiatives being taken by the Ministry of Steel through various forums and mechanisms are as under:

## 11.2 Green Steel

As a part of Glasgow commitments, India plans to achieve net zero emissions by 2070. Ministry of Steel is taking all the possible efforts for decarbonization of steel sector through policy interventions and enabling ecosystem. It is currently devising strategy, roadmap and action plan for decarbonization of steel sector and is working on solutions ranging from carbon minimization to carbon avoidance to carbon utilization. The green pathways to steel production have been categorized into 5 pillars of – energy efficiency, use of renewable efficiency, material efficiency through pellets and scrap, green hydrogen and CCUS (Carbon Capture, Utilization and Storage). It is envisaging setting up of short, medium and long-term decarbonization targets for the steel industry aiming at incremental reduction in emission intensity of steel industry. Ministry of Steel is working on the key enablers for this transition includes policy framework, regulatory mechanism, technological innovations, R&D, global collaborations as well as financial mechanisms.

For the purpose, Ministry of Steel is also continuously engaging with the stakeholders from the steel industry and the concerned stakeholder Ministries/ Departments such as Ministry of Environment, Forest and Climate Change (MoEFCC), Ministry of Power, Bureau of Energy Efficiency (BEE), Ministry of New & Renewable Energy(MNRE), Ministry of Road Transport and Highways (MoRTH), NITI Aayog etc. Detailed discussions on decarbonization and improvement of resource efficiency in Steel Sector were also held in meetings of Consultative Committees of Parliament on "Transition towards Low Carbon Steel-Green Steel on 6<sup>th</sup> May, 2022" and "Roadmap for Circular Economy in Steel Sector on 1<sup>st</sup> July, 2022.

### 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 scheme (PAT) 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.

Perform Achieve and Trade (PAT) is one of the initiatives taken by the Ministry of Power (MoP) and Bureau of Energy Efficiency (BEE) under NMEEE to enhance energy efficiency. It is a market-based mechanism to enhance cost effectiveness of improvements in energy efficiency in energy-intensive large industries and facilities, through certification of energy savings that could be traded. The genesis of the PAT mechanism flows out of the provision of the Energy Conservation Act, 2001. Under PAT Scheme, MoP is notifying several industrial units in the steel sector to reduce its Specific Energy Consumption (SEC) every 3 years. Presently, PAT cycle-VIII is under progress. Till now 270 number of designated consumers in Iron and Steel sector have been covered under PAT scheme.

#### Iron and Steel Sector

Iron and Steel Plant coverage in PAT Iron and Steel Sector							
Sl. No.	PAT Cycles	Year of Implementation	Total number of units covered under PAT (Cumulative)	Total Production (MT) of Units (Cumulative)	Total Energy Consumption (millionToe) of units (Cumulative)	Energy saving target (Million Toe)	Savings (million-Toe)
1	PAT Cycle-1	2012-13 to 2014-15	67	42.55	25.32	1.486	2.10 (Achieved)
2	PAT Cycle-2	2016-17 to 2018-19	71	64.49	40.44	2.37	2.913 (Achieved)
3	PAT Cycle-3	2017-18 to 2019-20	29	10.67	7.64	0.456	0.57 (Achieved)
4	PAT Cycle-4	2018-19 to 2020-21	35	4.86	3.22	0.192	

Iron and Steel Plant coverage in PAT Iron and Steel Sector							
Sl. No.	PAT Cycles	Year of Implementation	Total number of units covered under PAT (Cumulative)	Total Production (MT) of Units (Cumulative)	Total Energy Consumption (million Toe) of units (Cumulative)	Energy saving target (Million Toe)	Savings (million-Toe)
5	PAT Cycle-5	2019-2020 to 2021-22	23	4.7	2.82	0.168	
6	PAT Cycle-6	2020-21 to 2022-23	5	1.64	0.515	0.030	
7	PAT Cycle – 7	2022-23 to 2024-25	69	83.07	48.36	2.094	
8	PAT Cycle – 8	2022-23 to 2024-25	65	18.97	11.70	0.821	
9	PAT Cycle – 9	2023-24 to 2025-26	66	6.51	3.71	0.260	

Note– PAT cycle is notified for three years. PAT-III, PAT-IV, PAT-V and PAT-VI cycle are notified by BEE in 2017, 2018, 2019 and 2020 respectively with 29 new DCs in PAT cycle III, 35 new DCs in PAT Cycle IV, 23 new DCs in PAT cycle V and 5 new DCs PAT cycle VI. 2 DCs found closed down in PAT VII and 36 new DCs added in PAT VII A.

#### 11.4 NEDO Model Projects for Energy Efficiency Improvement

Government of Japan through Ministry of Economy Trade and Industry provides funds i.e. as Overseas Development Aid (ODA) under its Green Aid Plan (GAP) through Department of Economic Affairs in Government of India for setting up of energy-efficient, environment-friendly projects known as Model Projects in various sectors including steel. These projects are routed through and managed by NEDO (New Energy and industrial technology Development Organization), Japan. Ministry of Steel is coordinating the projects undertaken in the iron and steel sector. So far, the projects commissioned and in progress are as follows:

- BF Stove Waste Heat Recovery: Completed at Tata Steel.
- Coke Dry Quenching: Completed at Tata Steel.
- Sinter Cooler Waste Heat Recovery: Completed at RINL.
- Energy monitoring and management system at ISP Burnpur, SAIL is in progress.

#### 11.5 Use of Green Hydrogen in Steelmaking

In National Green Hydrogen Mission, as drafted by Ministry of New and Renewable Energy, Iron and Steel sector has been made a stakeholder in it. Green hydrogen can play a very crucial role

in decarbonization of Indian Steel Industry as it can act as an alternative reductant in steelmaking process. Coal reduces iron ore producing carbon dioxide while hydrogen reduces iron ore producing water.

- **BF Route**

In India, 68% steel is made through Blast Furnace (BF) route in which Coking Coal is the primary reductant while Pulverised Coal Injection (PCI) or Natural Gas can be used as auxiliary reductant. Green Hydrogen to replace PCI in BF-BOF route is under development.

- **DRI Route**

In iron-making through gas-based DRI route, green hydrogen can potentially reduce use of fossil fuels leading to reduction in carbon emissions. To start with, Green Hydrogen can be blended with Natural Gas in vertical shaft.

## 11.6 Organization of Side-Event at COP-28

Indian Steel industry hosted a session of COP-28 event in Dubai, UAE on 05<sup>th</sup> December, 2023. The event showcased India's commitment to sustainable growth in line with its National Steel Policy 2017, targeting a production increase to 300 MT by 2030, while aligning with the 2070 net-zero goal. Strategies include adopting clean energy, improving energy efficiency, using low-carbon feed stocks, event highlighted India's efforts in reducing carbon intensity across collaboration in technology diffusion, finance, and R&D to expedite international experts and showcased decarbonization initiatives by Indian steel producers, fostering dialogue on international cooperation and innovation in the sector.

Eminent panelists from World Steel Association, UNIDO, International Energy Agency, KfW Development Bank, Asian Development Bank, Steel Authority of India Ltd., Arcelor Mittal group, TATA Steel, JSW, JSPL, JSL and Kalyani Steels discussed the relevant issues related to Technology Choices, Collaboration and Financing thereof for steel decarbonization.

# 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 NE. It has a Branch Sales Office at Guwahati which looks after marketing of Steel products in whole of NE. Apart from Branch Sales Office, there is a Consignment Handling Agency (CHA) at Guwahati and one Consignment Agency (CA) Warehouse located at Silchar. During the FY 23-24, SAIL has sold more than 2.45 lakh tonnes in NE Region, a growth of 17% CPLY.

In NE Region, SAIL has been catering to various infrastructure projects of national importance like Subansiri Lower Hydro Electric Project in Assam, India's proposed longest river road bridge of 19 km from Dhubri to Foolbari over river Brahmaputra connecting Assam to Meghalaya, 111 km long BG Extension project connecting Jiribam –Tupul – Imphal involving 52 tunnels and 149 bridges, Dental College at Dibrugarh in Assam, Expansion Project of Numaligarh Refinery Ltd., New Guwahati International Airport, New Medical Hospital at Bongaigaon in Assam, Jorhat Stadium in Jorhat Assam.

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 Single Tier Distributor located at Guwahati. Further, for retail requirements, SAIL has established a Two-Tier 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 is being catered to by 3 Tier-2 Distributors and 230 number of dealers in the NE.

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 two-tier distributorships 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, Bus Branding through Assam State Transport Corporation (ASTC) and participation in cultural events like BIHU Festival in Guwahati and Bamboo Festival in Jorhat have been undertaken by Distributors.

### 12.2.2 Rashtriya Ispat Nigam Ltd. (RINL)

The demand for steel in Northeast 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.

- Achieved improved sales volume in the North East region, achieving approximately a 100% increase in FY23-24 compared to the preceding FY22-23. The sales volume for FY23-24 reached approximately 18,000 metric tons, marking a 100 % increase from previous year. Since June 2021, total sales of RINL in the North- Eastern region have amounted to approximately 39,000 metric tons.
- RINL has supplied materials to various significant national projects, including Dhubri-Phulbari Bridge, Numaligarh Refinery, NHIDCL, NHAI, Smart City project, and PGCIL, among others.
- RINL has also initiated a C&F contract to cater to the requirements of the customers in North-Eastern Region.
- RINL is also planning to bolster its retailer base in the North Eastern Region by expanding its rural dealership network across the region and appointing two-tier distributor/retailers.

### 12.2.3 MSTC Ltd.

MSTC has a Branch Office at Guwahati for serving customers of the North Eastern Region. Many activities for implementing e-Commerce in Agriculture and Horticulture sectors were being undertaken to help improve the livelihood of the farmers in the region. MSTC has also developed portal for sale of coal from Meghalaya in line with the decision of the Hon'ble Supreme Court.

### 12.2.4 MECON Ltd.

A network of natural gas pipeline is being laid under the Hydro-carbon vision 2030 of Ministry of Petroleum and 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 and 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 and 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 for 2 additional crude oil storage tank inclusive of ancillary services at Madhuban, Duliajan, Assam.

MECON is also providing Consultancy and 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 93<sup>rd</sup> session of the Steel Committee was held on 13-14 March 2023 in Paris, France. The Steel Committee’s 94<sup>th</sup> session was held on 25-26 September 2023 in Paris, France.

## 13.2 Official bilateral/ multilateral Engagements

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

- A meeting was held between Hon’ble Steel Minister and Mr Nishimura Yasutoshi, Minister, METI, Government of Japan in July 2023 to discuss the cooperation between India and Japan in steel sector wherein both sides decided to hold discussions through Steel Dialogue and other Cooperation programs in November 2023 with due focus on training programs, adoption of innovative technologies for increasing energy efficiency, decarbonization and resource efficiency of steel production, with the participation of both public and private sector.



*Hon'ble Steel Minister with Foreign Delegation*



*Hon'ble Steel Minister with Foreign Delegation*

- A delegation led by Hon'ble Minister of State for Steel and Rural Development, along with officials of Ministry, officials of CPSEs and private sector steel companies visited St Petersburg, and Moscow, Russia during 14th-16 th June 2023 to participate in plenary session of St Peterburg International Economic Forum (SPIEF) and address a panel discussion. On the sidelines of the event, the delegation had a bilateral meeting with Minister of Energy of

Russian Federation and Governor of Kemerovo. The delegation had also interactions with Russian steel and coal companies to deepen cooperation in coking coal.

- A German delegation led by Mr Stefan Wenzel, Parliamentary State Secretary at the Federal Ministry for Economic Affairs and Climate Action (BMWK), met Secretary, Ministry of Steel on 24.07.2023 to discuss collaboration in Green Steel and other bilateral issues.
- A Cuban delegation led by Mr. Idalberto Perez Cabrera, Director General of Industrial Management, Ministry of Industry of the Republic of Cuba (MINDUS) met Secretary, Ministry of Steel on 8.8.2023 to discuss on critical minerals and investments.
- Indian delegation participated in the 93<sup>rd</sup> Steel Committee meeting of the OECD held on 13-14 March, 2023 in Paris, France and 94<sup>th</sup> Steel Committee Meeting of OECD held on 25-26 September, 2023 in Paris, France.
- A Belgium delegation led by Mr Francois Michel, CEO, John Cockerill Group met Secretary, Ministry of Steel on 11.10.2023 and 02.02.2024 to discuss and present on decarbonization technologies adopted in Belgium.
- A Gabon delegation led by Mr. Marcellin Simba Ngabi, Director General Admin of Gabon Oil met with Joint Secretary, Ministry of Steel, CMD and representatives of MOIL Ltd and Ministry of External Affairs on 24.11.2023 to explore the possibility of collaboration in mineral exploration and mining sector.
- The Second India-Japan Steel Dialogue under Memorandum of Cooperation between Ministry of Steel, Government of India and Ministry of Economy, Trade and Industry (METI), Government of Japan was held in Tokyo, Japan on 28<sup>th</sup> November, 2023. The Indian delegation was led by Additional Secretary, Ministry of Steel and was attended by officials from Ministry of Steel, and representatives from Indian Steel Industry including private and public sector.



*Second India-Japan Steel Dialogue*

- The India-Japan Public and Private Collaborative Meeting on Iron and Steel Industry was held on 29<sup>th</sup> November, 2023 in Tokyo, Japan. The meeting was attended by Government officials and representatives of public and private sector steel industries of both countries. The theme of the meeting was initiatives towards carbon neutrality in Steel Industry in India and Japan.



*India-Japan Public and Private Collaborative Meeting*

- An Australian Delegation comprising of Commonwealth Scientific and Industrial Research Organisation (CSIRO) officials met Additional Secretary, Ministry of Steel on 7.12.2023 to discuss on collaboration in critical minerals and Green Steel technologies.
- Mr. Brian Henesey, Chairman, Institute of Scrap Recycling Industries (ISRI), USA and his team met Secretary, Steel on 19.01.2024 to discuss steel scrap related issues.
- An Indian delegation participated in the **Training Programme on the Steel Usage in Construction**, under the aegis of Memorandum of Cooperation between Ministry of Steel, Government of India and Ministry of Economy, Trade and Industry (METI), Government of Japan. The training programme was organized by Association for Overseas Technical Scholarships and Sustainable Partnerships (AOTS) and Japanese Society for Steel Construction (JSSC) and METI. The Indian delegation consisted of officials from Ministry of Steel, Bureau of Indian Standards, Ministry of Road Transport and Highways, Central Public Works Department (CPWD), participants from public and private steel sector companies, CPSE under MoHUA (NBCC(India) Ltd), experts (architect, structural engineers, academicians etc).

# DEVELOPMENT OF INFORMATION TECHNOLOGY

## 14.1 Introduction

The Ministry of Steel and its PSUs 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 280 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 (eAPAR) have been implemented to achieve less-paper office initiative in the Ministry.
- A Ministry-wide Intranet portal is also operational in the Ministry.
- eRequisition, Stock and Inventory Management System is operational and accessible through Ministry’s Intranet Portal.
- LAN in the Ministry is extensively used for email, file sharing, printing on network printers, internet, Video Conferencing, eOffice File Management, Tracking of Receipts, Files, 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 Parars and Parliament Assurances etc.) from Divisions.
- Biometric Attendance System (BAS) is implemented.
- High-Definition VC setups are operational in the chambers of Hon’ble Steel Minister, Hon’ble Minister of State, Secretary (Steel) and Steel Conference Room. Around 1200 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 and Monitoring System (CPGRAMS) for facilitating Public and Pensioners Grievances in the Ministry and its PSUs.
- 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 PSUs.
- 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 and Briefing System (LIMBS).
- Anubhav - A platform for Retirees to share experience of working with the Government.
- Recruitment Rules Formulation, Amendment and Monitoring System(RRFAMS).
- CACMS, Representation of Reserved Categories in Posts and Services in Gol (RRCPS) Monitoring System.
- ACC Vacancy Monitoring System(AVMS).
- eVisitor Monitoring System(eVMS).
- eSamiksha 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>), developed on content Management Framework (CMF) platform, providing the comprehensive details and functioning of Ministry of Steel and its other offices/PSUs 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. **More than 65000 clarifications have been issued till date using the Portal. Approximately 2500 clarifications are issued in a month on fortnightly basis.**

### Awards Portal of the Ministry

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.

### 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 and 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 and Development in Iron and 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 M/o Steel and a Dy. CISO from NIC to support CISO has also been appointed.
- CPSE under M/o Steel have been directed to appoint their CISOs.
- Officers / Officials of M/o 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 Governmentn 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 have been deployed on all the nodes of Ministry of Steel.
  - ❖ Installation of Unified Endpoint Management Tool (UEM) on all the nodes of Ministry of Steel is in progress.
  - ❖ 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 M/o 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 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.
  - ❖ Alerts / messages are being sent to intended recipients through auto emailing services.
- **Following are the key initiatives which have been planned for the year 2024:-**
  - ❖ Network and End point audit of all the nodes of Ministry of Steel.
  - ❖ Further segmentation of Ministry of Steel 's VLAN into smaller subnets is in progress to restrict the spread of malwares.

- ❖ Appointment of CISO in all the organization under Ministry of Steel.
- ❖ Deployment of Unified Endpoint Management (UEM) tools on all the nodes of Ministry of Steel.
- ❖ Submission of Cyber Crisis Management Plan (CCMP) to CERT-In for dealing with cyber-related incidents.
- ❖ Implementation of Cyber Security postures in all the organization under Ministry of Steel.
- ❖ Digital Asset Inventory Management.
- ❖ Maintain a list of authorized applications to be installed on the systems.
- ❖ Separate administrative access and user access on all the systems to minimize the risk of unauthorized actions.
- ❖ Granting internet access to limited users as determined by the CISO.
- ❖ Restricting the use of external devices within the Ministry of Steel's network unless properly authorized and scanned for malwares.
- ❖ Banning the connection of mobile hotspots and other public networks to ensure secure network connections.
- ❖ Secure Disposal of IT Assets.
- ❖ Periodic security audit of websites, portals, mobile apps and applications.

## 14.2 Computerization of Accounts:

**Compilation and Computerization of Accounts:** Monthly account is compiled by PAO for the transaction carried out during the month by the PAO after incorporating the list of payment and 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 C.G.A.'s office online on e-Lekha (<http://164.100.12.160/Elekha/elekhaHome.asp>).

**e-LEKHA:** The daily accounts abstract, online submission of e-DDG, Appropriation Accounts (Stage-I and 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 and 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 is 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 under Plan scheme 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.

**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, SBI ePay 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 Government of India Departments/ Ministries 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 2022-23 Rs.1731.28 crore non-tax revenue was collected through NTRP transaction. In FY 2023-24 Rs.2052.30 crore 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 is continuing the journey of transformation of business processes through digital initiatives by embracing Cloud computing, Artificial intelligence for automation of processes, Real-time monitoring systems powered by Internet of Things (IoT). Some of the initiatives accomplished during the year 2023-24 are:

- Command Centre Dashboard for top management to monitor the production data of SAIL Plants.
- In-house web-based system for Compliance of Regulation-3 of SEBI for sharing of confidential information by Directors has been implemented.
- 'SAIL SHABASH' recognition scheme was launched to boost the morale of employees and by acknowledging outstanding performance publicly through an online system.

- A women exclusive portal 'SAKHI' was launched for Motivating and empowering women of SAIL by creating a supportive environment.
- e-Suraksha module along with a mobile app made for recording BI-SEE round observations and uploading photographs on-the-spot. This has features of all major verticals – BI-SEE (BEHAVIOURAL INTERVENTION- e Safety Encouragement and Engagement), I2(Incident Investigation), Audit, Standards, HHP(High Hazard Processes). Near Miss on common Road, Rail/Road incidents, Consequence Management, Safety Training calendar, ZTR (Zero tolerance records) creation from High speed camera logs. Dashboard, KPI and Analytical reports provided for faster mitigation of Incident Investigation.
- An initiative to promote 'MADE IN INDIA BRANDING OF STEEL PRODUCTS' by Government of India through implementation of QR Code Label Printing for HR coils in HSM2, WRM, BRM, MM, SMS as per National Institute of Design (NID), GOI guidelines and integration of the same with Quality Council of India (QCI) portal.
- Digital Project Monitoring System for SAIL as well as an Electronic Drawing and Document Management system (EDDMS) has been implemented.
- e-Route card for paperless working and faster documentation of Road despatches has been started with all major activities starting from tare-weight of vehicles, loading at the shops, and gross weight, bill creation and timely event based SMS alerts.
- Implementation of payment gateway for accepting remittances from multiple sources like vendors and customers of Marketing, Township, hospital, personal, Material Management as well as from employees.
- Implementation of Digital Signatures in Invoices, Test Certificates and Services PRs using HSM Module (Hardware Security Module).
- Reduction in paper usage by implementing online systems for application, selection and finalization of Vocational Training, Schedules of House rent and Electricity have been made online.
- In-house Application for on-line monitoring of Wagon Tippler#4, 5 and 6, and Conveyor Belt Status of Track Hoppers#1, 2 and 3.
- System for Test Request Memo generation, Test result recording and display of results as per NABL standard of CCP products.
- The Customer Contact Mobile App for sales and marketing executives captures the 360 view of the customer for better customer engagement.
- Self-service weigh bridges with 24X7 availability are implemented at the warehouses.
- Automated Vehicle Entry has been introduced, which allows only authorized vehicles into the warehouse through the boom barrier by reading the number plate, thus avoiding manual checking by the security staff.
- Near-Miss Management system was deployed for reporting of safety related near miss incidents.

- Smart Sensors and IOT: Smart sensors have been installed throughout the production process to monitor and optimize energy consumption, temperature, and other crucial parameters.
- ASN (Advance Shipping Notification) system developed for Generation of Advance shipping notification by vendor on SRM portal and transfer of data along with attachments to ECC-SAP. This facilitates the scheduling of supply of materials as per actual needs instead of maintaining actual inventory.
- Digital twins is being introduced in SAIL plants by creating digital replicas of physical assets to simulate and optimize processes, reducing the need for physical trials and minimizing material waste. SAIL has created digital twin of Blast furnace, which allows virtually monitoring the Blast Furnace.

#### 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 2023-24 are given below:

- **Improvements in Steel Melt Shop:**
  - Implemented application for SMS Lab Automation for
    - Automatic Provisional Grade Declaration for SMS-2
    - Integration of X-ray Fluorescence Spectrometer (XRF) for Slag Data Auto Transfer
    - New Optical Emission Spectroscope (OES) in the new steel lab for Bath and Hot Metal Data auto transfer to Business and Process systems.
  - Implemented Batch management for Ferro Alloy materials to facilitate receiving, stocking, issuing and consuming at SMS-1 or SMS-2 which helps to monitor Ferro alloys consumption.
- **Improvements in Rolling Mills:**
  - Automatic Post Goods Issue module implemented in SAP-PP for Rolling mills to facilitate dispatch
  - Improvements in Central Dispatch Yard (CDY) and Branch Stock Yards :
    - Yard Management System (YMS) in CDY commissioned for material handling and tracking through scanning by using Hand Held Terminals (HHT), helps in tracking inventory of material in CDY and reduction of Rake Retention Time (RRT).
    - Scanning App for HHT used in Branch Stock Yards across the marketing network implemented to post product dispatch data to ERP.
    - Made in India tags (3" x 4") implemented for all finished products of RINL; QR Code in tag provides relevant product information from the Centralized Quality Council of India (QCI) server.

- **Improvements in Financial functions:**

- Automation of customer advance money receipt, bulk posting of invoices for service entry sheets and automatic clearing of NMDC invoices implemented in SAP-FICO module.
- Online Security Deposit (SD) receipts module through e-Suvidha implemented.
- Extraction of wage details, calculation of EPS-95 amounts with interest and displaying the details in Employee Pay Self Service (EPSS) and Retired employee's implemented in SAP, EPSS and Retired Employees Portals.
- Material Gate Pass system to validate, approve and record the movement of materials from the plant premises.
- Quarter Allotment Module for receiving consent options and allotment of quarters to employees.
- Safety belt monitoring system to capture belt details and to ensure belt selection at the time of workers' nomination to height- safety training.

- **New applications developed and implemented:**

RINL SAATHI Mobile app, Shift change management system, Safety Information Management System, HR dashboard, POSH portal, Production dashboard, Plant Maintenance (SAP-EAM), CISF fire extinguishers and hydrants Systems, IT Assets management system, online trouble shooting guide for WRM, Energy Consumption Module for EMD.

## 14.5 NMDC Ltd.

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

- **Automated Capture of Production Data from Belt Scale of OCSL Plant**
- **Customer Portal** – Provides access to customer to view the details of their payment, invoices status and lodge their grievances with reference to quality and quantity.
- **Vigilance Portal** – Vigilance Portal Phase-1 activities has been completed with feature for recording and processing complaints received and for preventive vigilance like inspections carried out, file studies conducted etc.
- **Ex-Employee Portal** – Retired employees can submit all their claims through this portal and can view the payment status.
- **E-Measurement Book** – It is a platform, where vendor can record and submit the measurements, invoices, User Department can verify and approve the measurements for payment. The vendor can view the status of the contract along with approved measurements and payment status.
- **E-Hindrance Register** – It is a platform, where the vendor as well as NMDC can record the details of hindrances as and when happened during contract period. There from reasons for delay can be determined to take further decision on closure of the contract.

- **Vendor Invoice Management and Vendor Self Service Portal**– It provides feature for uploading of Invoices, Automation of payment process and bill tracking.
- **Digital Signature** – Enables user to issue invoice/Cr Note / Dr Note with digital signature.
- **Implementation of Supply Relationship Management** – SRM (LTE and STE) – Digital procurement platform for ordering and procurement of goods with integration with ERP.
- **Document Management System**- It is used for storage of documents in ERP and same will be used in PR, PO and FLM etc.
- **File Lifecycle Management (for procurement activities)** – It is a digital platform where the files are processed without physical movement of file.
- **Integration of Facial Recognition System (FRS) with ERP**– Attendance data in ERP is fetching through FRS recorded data.

#### 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:

- **Automated Capture of weighment data from dispatch weigh bridges to ERP.**
- **Gate pass system:** The system keeps track of all the gate passes issued to contract labour and employees of different contractors. Alert is generated before expiry of the gate pass issued.
- **Asset Management System:**The systems keeps track of the entire life cycle of any asset and its maintenance record.
- **CCTV surveillance system:** The CCTV surveillance system has been installed in different parts of the plant including the product loading area. Railway wagon surveillance and weigh bridge surveillance is also being performed to ensure safety and security inside the plant.
- **Facial Recognition system:** The Facial Recognition system has been implemented for the NSL & MECON employees which enables automated recording of the employee attendance.
- **Helpdesk Management System:** This system accepts service requests from users pertaining to various assets and effectively manages the service complaints while keeping the maintenance record of these assets.

#### 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.
- MOIL has taken following projects as Digitization Initiative:
  - ❖ Miners Tracking, Voice and Data Communication System for Underground Mines.
  - ❖ Fuel Dispensing and Consumption Monitoring System for various Mines.
  - ❖ Heavy Earth Moving Machines (HEMMs) Tracking and Health Monitoring System for Dongri Buzurg Mine.
  - ❖ Intrusion capture through CCTV Surveillance System for various mines.

## 14.8 MECON Ltd.

IT Department has worked rigorously over last One Year towards Digitization, Automation and Computerization of MECON. ERP and DMS System was successfully implemented in MECON across 3 business Offices and 20+ site Offices. A team consisting of Experts from various streams

was constituted to implement ERP in MECON in a fast-track manner over a period of 6 months. IT Department successfully migrated the processes of MECON from Legacy System to SAP Enterprise Resource Planning System and DMS System. DMS system has been implemented to shift the workings towards a Paperless Office.

Campus wide High-Speed WI-Fi System was implemented in Ranchi Office. Biometric System with Face and Finger-print Recognition features was implemented in last year. A high-End Firewall system was implemented in MECON to protect the devices from unauthorized access and attacks. IT Section worked tirelessly to successfully coordinate and implement the above projects in a Time Bound manner.

### 14.9 MSTC Ltd.

Following digital initiatives have been undertaken:-

- ISO 27001:2013 certification is in place and is under upgradation to newer version ISO 27001:2022 and the same is under yearly surveillance/re-certification audit by STQC, Kolkata.
- MSTC has developed in-house and implemented many customised projects like MP Sand portal, Portal for Sand Block in e-Tender followed by lottery in Chhattisgarh, Improvements for ELV portal with single MAC login, nCode multi-browser PKI implementation, OTP verification in buyer login across portals etc.
- MSTC has also developed and customised in-house application of Narakash 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.
- MSTC has implemented SIEM and SOAR solutions in its Data Center 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.

- **ERP implementation:** SAP S/4 Hana ERP on Cloud platform has gone live on 1st April 2023 with core modules like PM, PP, QM, PS, HCM, MM, SRM, FICO, EHS and FLM and DMS forming an integral part of the implementation. The project is named as 'Ashwa Megha". This implementation 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.
- **FLM:** The office Automation is extensively used with the use of File Life Cycle Management module, thus reducing the use of papers. It has inbuilt features like auto workflow, tracking of the files etc.

- **ICT – Infrastructure:** The ICT infrastructure are periodically upgraded with latest versions and maintained viz. few Desktops of low configuration have been replaced by latest configuration with i7 processor with Windows 11 professional and latest MS Office software. Applications like Arc GIS, Auto CAD 2019, SURPAC, Draft Sight software are being used by the user departments. For internet, Virtual Meeting, VPN connectivity as well as for Video conference to Mangaluru, Internet leased Line of 100 Mbps speed with Managed Services with primary and secondary lines are live and being used by the users. 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 hosting the data related to the company. The company website is integrated to the SAP system for retired employees medical, PF related activities and for E-recruitment.
- **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 Infrastructure to conduct Virtual Meeting:** IT Infrastructure like High-Speed ACT Internet, Webcam, Headphone were used to conduct hassle free Virtual Meetings through application like Webex, Microsoft Teams and Vidyio, etc.,
- Initiated the process of implementing Industry 4.0 in the Organization starting with preparation of Blue print of Industry 4.0 Implementation in Iron Ore Mining and Pellet manufacturing along with the action plan for implementing the same.

# 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 PSUs.
- 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.

### 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 functions.

#### 15.3.1 Management Commitment

SAIL has a comprehensive Safety Policy, which underlines the commitment of Top Management towards this vital issue concerning SAIL's most valuable resources i.e. Human Resource and 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 and Environment (BSC on HSE) to review and monitor the compliances, performance, issue guidelines and apprise the board.
- ❖ **Corporate level:** SAIL Safety Organisation (SSO) under Director (Technical, Projects and Raw Materials), SAIL to coordinate, monitor and facilitate the safety related activities of Plants/ Units and frame guidelines.
- ❖ **Plant Level:** Under Director In-charges/ Head of Units to make strategies/ facilitate implementation of safety measures, statutory requirements through Safety and Departmental Heads.

#### 15.3.2 Safety measures and New Initiatives

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

**New Initiatives:** Some of the new safety initiatives include engagement of reputed Safety Management Consultants at Bhilai, Durgapur, Bokaro, Rourkela, IISCO Steel Plant and Alloy Steels Plant to improve the safety culture; Introduction of 'SurakshaManthan' for discussing issues of concern with Plants and Units; Introduction of interaction module 'Sampark' for HODs and Front Line Executives; Release of 'Samiksha' – an e book comprising of Learning from the Past incidents department / area wise; Release of 'Sukriti' - an e-Book covering Good Safety Systems and Practices of Steel Industry; Introduction of 'NayiSoch' - preparation of customised animations for enhancing learning and risk perception of the associated risks; Introduction of 'SurakshaSamvad' in which major incident and major near miss cases of fatality potential are

discussed with domain experts through virtual mode to enhance technical knowhow; Safety Capsule 'Sparsh' in the beginning of every training programme at MTI; For the first time, Safety Audit and Training of other steel producer namely NMDC Steel Limited (NSL); 1st 'Safety Operating Committee' meeting on the theme 'Safety during Steel Making' participated by SAIL and private steel producers; Member of three member committee constituted by Ministry of Labour and Employment (MOLE), GoI for studying organizational setup of DGFASLI (Directorate General, Factory Advice Service and Labour Institutes) and suggesting measures for revamping/strengthening; Release of Handbook on 'Liquid metal spillage in SMS' considering all possible reasons for liquid metal spillage in SMS with existing and additional measures after visiting SMS of Plants and interacting with the domain experts including the practices of other steel plants; Formation of whatsapp group of Safety and DSOs for sharing near miss incidents immediately; Formation of 'Cross Functional Team (CFT)' for framing product-wise Standard Procedure for loading and unloading of finished product; Suggested for use of non-contact portable voltage detector; Preparation of Process Based Safety Guidelines by MoS; Dissemination of Safety Alert Messages (SAMs) and Good Safety Practices (G-SaPs), Organizing LEO (Learning from Each Other) workshops (4 nos.) on areas of safety concern with participation of SAIL plants and country's reputed steel producers.

## 15.4 Rashtriya Ispat Nigam Ltd. (RINL)

### Management Commitment

RINL has adopted an integrated policy that includes the Safety and Health Policy in line with National Safety Policy. Top Management of RINL strives to create an environment that encourages employee participation towards safety and wellbeing of employees and workers. Several measures are being taken up to achieve zero accident and to improve Safety Culture in the company. CMD along with other Directors conducts monthly meeting for reviewing the Safety Performance. Continuous efforts on the implementation of safety standards, monitoring of risk control measures and other proactive measures have resulted in reduction of potential risks.

### Safety set up in RINL

The ISO45001:2018 system in RINL ensures Preventive 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. Safety information system is in place for RINL, through which employees can report unsafe acts/conditions and near misses online.

### Special safety initiatives that were taken up during the year 2023-24

- Mutual Aid Agreement signed between M/s RINL, M/s NTPC, M/s HNPCL in the presence of Jt. Chief Inspector of Factories, Government of AP to extend mutual support in case of emergency situations. This agreement will be effective from 01.08.2023 and valid for 3 Years.
- A Special Training Drive on "Safety in Welding and Gas Cutting" conducted in all the departments in 2023-24 to create more awareness among the contract workmen regarding

the safety measures to be taken during welding and gas cutting.

- Organized PPE Exhibitions in collaboration with M/s Udyogi Safety Products Private limited and other suppliers in the plant to promote awareness on various PPEs being used.
- A Comprehensive Safety Management Software named “SIMS (Safety Information Management System)” developed to keep track of the safety points raised by various safety forums in RINL viz:
  - i. OHSMS Safety inspections- Shop-floor and equipment
  - ii. Departmental and Central Safety Committee Meetings
  - iii. Special Inspections and audits
  - iv. Incident Investigations etc.

This software facilitates to track the inspection points digitally and also helps in improving the compliance of the observations raised during inspections.

- Conducted Plant Level Mock Drill in the presence of Factories Department Officials, Government of Andhra Pradesh. Onsite Emergency Mock Drills conducted to ascertain the preparedness during emergencies in Coke Oven and Coal Chemical Plant Department and Energy Management Department. A Mock-drill was conducted during the night time in ASU-5 of Utilities Department to check the emergency preparedness during night. Joint Chief Inspector of Factories, Visakhapatnam, Government of Andhra Pradesh, witnessed the Mock Drills and applauded the efforts of VSP. All Emergency services like Gas Safety, CISF (Fire), Medical, Safety, Environment Management Department, CISF (Security), HR department and Mutual Aid Partners have participated in these drills.
- National Safety Day and 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 performed involving the local public.

## 15.5 NMDC Ltd.

NMDC has its training centers in all its projects. They are equipped with infrastructure as required under Mines Vocational Training Rules. These centers cater to the needs of basic training, refresher training and training for skilled workers and also for those injured on duty.

In each mining project of NMDC, sufficient number of workmen inspectors are nominated / appointed for mining operations, mechanical and electrical installations as per statutory requirements.

Safety Committees have been constituted in every operating mine and safety meetings are held every month for discussing the safety matters and corrective actions related to work atmosphere.

Mine Level Tripartite Safety Committee Meetings are being conducted at all Projects. These meetings are conducted once in a year at project level with senior officials, Union Representatives and DGMS Officials in which Safety Performance and its appraisal are made and the

recommendations are implemented. Corporate Level Tripartite Safety Committee Meetings are being held regularly once in a year at Head Office. Man-days lost per 1 lakh man days worked for the financial year 2023-24 is 15.15

**Safety Management System:** Safety Management system has been implemented in all mines and Risk Assessment Studies are being conducted regularly at all mines. Internal Safety Audits of Projects are being conducted by Internal Audit team of Projects and the observations are submitted to the Projects for compliance and is being monitored by Internal Safety Organization.

**Integrated Management System Certification (IMS):** All the Projects of NMDC i.e., BIOM, Kirandul Complex; BIOM, Bachel Complex; Donimalai Iron Ore Mine and Kumaraswamy Iron Ore Mine; are accredited with Integrated Management System Certification comprising of (QMS) ISO 9001:2015; (EMS) ISO 14001:2015; (OHSMS) ISO 45001:2018 and SA 8000:2014 Standards.

## 15.6 NMDC Steel Ltd.(NSL)

NMDC Steel Limited has an exclusive safety induction training center that is well-equipped with the necessary requirements for effective functioning. This center caters to the needs of basic safety training as well as workplace safety. For refresher trainings, 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.

### Safety Committees:

Safety Committees have been established as required under section 73 –I of CG 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 tier two safety review system on a monthly basis is established at NSL, involving senior officials from both NSL and MECON O&M. 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.

Internal safety audits of Operation and Maintenance 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. Recently, National Safety Council and SAIL Safety Organisations have carried out external safety audits at NSL.

### **Integrated Management System Certification (IMS):**

The implementation of the Integrated Management System is in progress and includes certifications for Quality Management System (QMS) ISO 9001:2015, Environmental Management System (EMS) ISO 14001:2015, Occupational Health and Safety Management System (OHSMS) ISO 45001:2018, Energy Management System ISO 50001:2018 and SA 8000:2014 Standards.

### **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 inter-action 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.
- 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, etc., are taken in all MSTC offices including attendance of a doctor during office hours at Head Office.

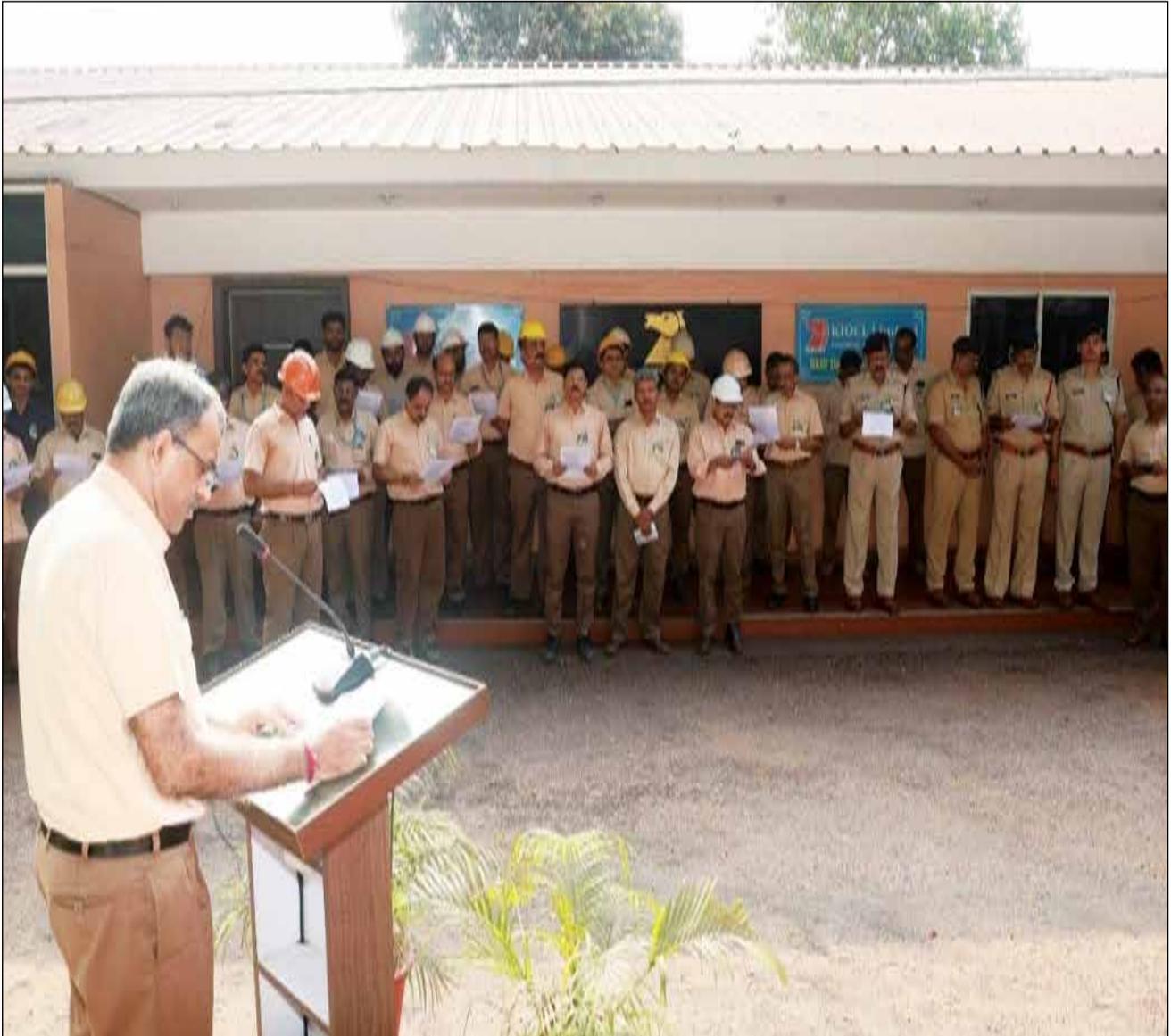
### 15.10 KIOCL Ltd.

- The onsite emergency plan, approved by the Director of Factories, is operational for both the Pellet Plant and Blast Furnace Unit.
- The engagement of workers in Safety Management systems is a pivotal aspect in compliance with the Factories Act. Area-specific safety committees have been established by the Company to uphold worker involvement in safety matters within the PPU and BFU units of KIOCL.
- A safety audit was conducted in May 2022 by Governmental organization M/s National Safety Council, Mumbai, to adhere to statutory obligations and uphold the safe operational status of the plant premises.
- An impactful administrative strategy employed for enhancing safety awareness among employees is the routine implementation of toolbox talks on a daily basis, aimed at educating/refreshing all workers, including contract workers.
- Routine safety inspections are methodically undertaken on a weekly and bimonthly basis by the Safety officer/staff in conjunction with pertinent departmental engineers and Safety committee members. The outcomes of these inspections are diligently recorded and relayed to the respective department heads for requisite measures.
- A range of standard Personal Protective Equipment (PPE) items such as Safety helmets, Shoes, Respirators, Raincoats, Gloves, Safety Goggles, Face shields, Aprons and Ear plugs/muffs are procured and distributed to all employees to safeguard them from workplace hazards.
- Diverse training initiatives are being implemented to instill a culture of Safety awareness and enhance human resources. Training programs encompass Refresher Training on Standard Operating Procedures (SOPs) and Maintenance activities, first aid, Firefighting techniques, Awareness sessions on Environment, Occupational Health, Safety, Vigilance, Sustainable development, and Productivity.
- National Safety Week is celebrated every year to inculcate safety among the workmen. The previous National Safety Week celebration was conducted from 4th March 2024 to 10th March 2024, as a part of it, Competitions such as safety slogans in Kannada/English/Hindi, safety quiz, and Safety poster painting were conducted. Safety-related training classes were conducted by five guest lectures.
- The Onsite Emergency Mock drills are regularly carried out at the Pellet Plant and Blast Furnace Unit to assess the readiness for potential major incidents. The forthcoming mock drill at PPU is scheduled for September 2024 in accordance with the established timetable

- In the fiscal year 2023-24, work orders totaling Rs.3.5 Lakhs were spent for the maintenance and enhancement of safety boards at KIOCL PPU and BFU sites, aimed at fostering a culture of heightened safety awareness among the workforce. Furthermore, two staff members of KIOCL have been assigned to participate in district-level quiz contests organized by the Department of Factories, Mangalore division, in conjunction with the National Safety Week celebrations.

**Safety code for Iron and Steel Sector:**

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. The Steel Safety code is studied and adopted in the company, a regular training is provided for all employees in faced manner.



*53<sup>rd</sup> National Safety Week Celebration by KIOCL Limited*

# 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 197 employees against sanctioned strength of 245 in the Ministry, as on March 31st, 2024, 43 belong to SC (21.82%), 12 belong to ST (6.09%), 48 belong to OBC (24.36%) and 1 belong to EWS (0.50%). 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 (DoPT) 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 31.03.2024, out of total manpower of 55989, 9477 belong to SCs (16.92%), 8949 belong to STs (15.98%) and 9431 belong to OBCs(16.84%). As on 31.03.2024, a total of 116 employees out of 55989 belong to EWS category i.e. around 0.2%. 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 Suvan 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/Agarbatil/ 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 31.03.2024, the total manpower of RINL is 13,536 comprising of 2,088 SCs (15.43%), 1,061 STs (7.84%) and 2,916 OBCs (21.54%).

"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. 1,500/- 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 in NMDC as on 31.03.2024 was 5630 out of which 814 belong to Scheduled Castes (14.46%), 1469 to Scheduled Tribes (26.09%) and 1186 to OBCs (21.07%). As a policy, efforts are made to fill any shortfall in the next year on a continuous basis and the Company has been able to fill the reserved vacancies so far. Liaison Officers have been appointed as per the Presidential Directives at Corporate Office and all the Projects. A member belonging to SC/ST is associated in all selection interviews/DPCs. Regular workshops are being held for Liaison Officers of SC/ST and OBC dealing officers working in various projects, SC/ST Welfare Association representatives to keep them updated on the reservation policy for SC/ST and OBC and other related matters. Regular meetings are held with the SC/ST Welfare Associations of the units and their Apex body at corporate level.

### 16.5 NMDC Steel Limited (NSL)

Under the provisions of Ideal CG Rehabilitation and Resettlement Policies 2007 the total number of workmen in NMDC Steel Limited as on 31.03.2024 was 794. Out of which 11 belongs to SC i.e.1.38%, 408 belongs to ST i.e.51.38%, and 117 belongs to OBC i.e.22.29%. Further, there are total 10 PwBDs workmen also working.

Further, there are total 1607 employees as on 31.3.2024 out of which 85 belongs to SC (5.28%), 429 belongs to ST (26.69%) and 388 belongs to OBCs(24.14%). In addition, there are total 7000 local persons working in Skilled, Semi-skill, Un-skill category who belong to Chhattisgarh state. Out of which about 5100 belong to Bastar district.

Primary health services are being provided to cater weaker sections of the Society adjacent to NMDC Steel limited. Mobile medical unit equipped with basic test machines and its equipment along with Doctor, pharmacist, Lab technician, staff nurse. Medicines also provided free of cost.

A full-fledged residential School i.e. up to 10 + 2 class being run by DAV with financial support of NMDC Steel Limited for weaker section of the society with free of cost in the said school there are 424 students are studying. In addition, an ITI is also being run by NMDC Steel Limited.

For weaker section of the society, 20 bedded pediatric ward has been constructed at Ramakrishan Mission campus, Narayanpur, Chhattisgarh.

In order to liaison with SC/ST Employees welfare Association, a Liaison Officers has been appointed as per the Presidential Directives. A member belonging to SC/ST is associated in all selection interviews/DPCs. Regular workshop are being held for Liaison Officers of SC/ST and OBC. SC/ST Welfare Association representatives to keep them update on the reservation policy for SC/ST and OBC and other related matters. Regular meetings are held with the SC/ST Welfare and their Apex body at Corporate level.

## 16.6 MOIL Ltd.

The total manpower as on 31.03.2024 is 5480 (male 4657, female 823) out of which 1054 belong to Scheduled Castes (19.23%), 1409 to Scheduled Tribes (25.71%), 2038 to OBCs (37.19%) and 274 to EWS (5%).

### 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. Salient features of such schemes 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, AIDS awareness programmes, propagating such other programmes by display of posters, notices and banners, leprosy awareness programmes, etc.

## 16.7 MECON Ltd.

As on 31.03.2024, out of 1012 employees on the strength of the Company, 223 employees belong to SC (22%), 99 belong to ST (9.8%), 137 belong to OBC (13.5%) and 2 belong to

EWS (0.2%). 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 31.03.2024 is 290 out of which 46 belong to Scheduled Castes (15.86%), 15 to Scheduled Tribes (5.17%) and 83 to OBCs (28.62%) and 09 belong to Person with Disability (PwD) (3.10%).
- 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. All Departmental Promotion Committees and Selection Committees (in case of recruitment) constituted during the year have representatives of SC/ST community.
- During the year up to 31.03.2024, 43 SC and all ST, OBC and 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.

**WELFARE OF WEAKER SECTIONS:** The Presidential Directives issued from time to time for reservation, relaxation, concession, etc. for the SC/ST/OBC/PwD candidates pertaining to the policies and procedures of the Government were duly observed. The directives in matters concerning recruitment and promotion regarding the weaker sections have been duly complied with. All Departmental Promotion Committees and Selection Committees (in case of recruitment) constituted during the year had representatives of SC/ST community.

### 16.9 KIOCL Ltd.

The total number of employees in KIOCL as on 31.03.2024 is 603, out of which 97 persons belong to Scheduled Caste (16.09%), 43 persons belong to Scheduled Tribe (7.13%), 94 persons belong to Other Backward Classes (15.59%) and 3 persons belongs to EWS (0.50%). Besides, there are 22 Women (3.65%) and 11 Divyang Persons (1.82%).

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" and "D" type quarters are reserved for SC/ST employees.

During the Financial Year 2023-24 as on 31.03.2024, 7 Graduate Engineering (Trainee) and 6 Lateral Entry were recruited in the Groups 'A'. However, there is no recruitment in any of the groups 'B', 'C', 'D' and D(S) (Supervisors and Non-Executives).

During the Financial Year 2023-2024 (As on 31<sup>st</sup> March, 2024), 173 employees put together in all Groups 'A', 'B', 'C', 'D' and D(S) were promoted, out of which 25 employees belong to SC category and 12 employees belong to ST category.

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 and weaker section of the society especially people living in the vicinity of its projects.

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

## 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 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. Three new CVOs in KIOCL, SAIL and MECON were appointed during the year 2023.

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 01.01.2023 to 31.03.2024, the Vigilance Division received 66 complaints from various sources. Out of the 66 complaints received, 52 complaints have been suitably disposed off and appropriate actions in respect of remaining 14 complaints/ references have been initiated. Besides, factual reports / comments in 05 cases were furnished to the CVC and

advise from Commission suitably implemented. Vigilance Clearance proposals in respect of 41 Board Level officers were sent to the CVC during the period from 01.01.2023 to 31.03.2024.

During the period, a two days Vigilance Conclave was organized by Ministry of Steel at Bengaluru on 22-23 June, 2023 as an exercise of the Preventive Vigilance initiative. The purpose of this vigilance conclave was to sensitize officers of Steel CPSE on the basic principles and procedures to be followed while taking important administrative / procurement and commercial decisions and to make them effective and outcome oriented.

This Ministry also observed Vigilance Awareness Week from 30.10.2023 to 05.11.2023. 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 "Role of Citizen in promoting vigilance and combating corruption" 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 enhancing standardization and transparency in the organization. Following activities were undertaken by SAIL Vigilance during the period January' 2023 to March' 2024.

**Training Programmes organized by SAIL Vigilance:** In the period January to March 2023, a total of 33 training/awareness programmes/workshops involving 648 participants were organized at various plants and units of SAIL, for enhancing awareness on System and Procedures followed in SAIL. These trainings include ten dedicated two days Preventive Vigilance programs wherein a total of 198 executives have been covered.

In the FY 23-24, a total of 190 training/awareness programmes/workshops involving 4092 participants were organized at various plants and units of SAIL, for enhancing awareness on System and Procedures followed in SAIL. These trainings include eighteen dedicated two days Preventive Vigilance programs wherein a total of 327 executives have been covered.

**Vigilance Awareness Week 2023:** Vigilance Awareness Week was observed in SAIL during 30th October to 5th November 2023. The week started with administering the Integrity pledge and reading out of messages of dignitaries on 30th October at SAIL Corporate Office and all other Plants/Units of SAIL. During the week, workshops/sensitization programmes, customers meet, events like quiz, essay, slogan and drawing/poster, debate competition etc. were organized for SAIL employees in different SAIL Plants/Units. As outreach measures, various events like Speech/Oratory competition, Essay/Slogan competition, drawing/poster competition etc were organized for School / College students in SAIL townships. The activities conducted during the week were posted on social media like Twitter handle and Facebook account of SAIL for wider publicity. 'Inspiration-Prerna', an in-house publication of SAIL Vigilance was published during the week. The above publication contains case studies and informative articles to enhance awareness of the readers.

**Thrust Areas of SAIL Vigilance:**

The Thrust Areas of SAIL Vigilance for the calendar year 2023 were:

- Scrutiny of Stock verification system at WH/Stores/other service units associated.
- Scrutiny of cases, where the items like spares, consumables, etc. have been procured and are lying in inventory for more than 3 years after receipt of the items.
- Scrutiny of cases where single techno-commercial eligible offer has been received against OTE cases.
- Scrutiny of procurement cases through GeM portal.

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

- 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:** In the period January to March 2023, a total of 552 Preventive Checks including File Scrutiny and Joint Checks were conducted at different Plants / Units of SAIL, out of which 17 checks were taken up for detailed investigation while preventive / system improvement recommendations were made in 130 cases. In the FY 23-24, a total of 2214 Preventive Checks including File Scrutiny and Joint Checks were conducted at different Plants / Units of SAIL, out of which 29 checks were taken up for detailed investigation while preventive / system improvement recommendations were made in 518 cases.

**System Improvement Projects:** During the calendar year 2023, a total of 11 System Improvements Projects (SIPs) were taken up at different Plants/units of SAIL after identifying concerned areas. For the calendar year 2024, a total of 12 System Improvements Projects (SIPs) have been taken up at different Plants/units of SAIL after identifying concerned areas.

**Intensive Examinations:** During the calendar year 2023, a total of 13 cases were taken up for Intensive Examination at different plants / units. For the calendar year 2024 also, a total of 13 cases have been taken up for Intensive Examination at different plants / units. During Intensive Examination, high value procurement / contracts are scrutinized comprehensively and necessary recommendations are 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.

**Implementation of ABMS:** In January 2024, 94 additional sites of SAIL including Bhilai Steel Plant, Durgapur Steel Plant, Rourkela Steel Plant, IISCO Steel Plant, Alloy Steels Plant, Salem Steel Plant, Central Marketing Organization, Chandrapur Ferro Alloys Plant, SAIL Refractory Unit, Ranchi based units and Environment Management Division have been included by BIS under SAIL ABMS (as per ISO 37001:2016) License No. CRO/AB/L-8000027 dated 02.11.2022. Thus, Steel Authority of India Limited has achieved the distinction of becoming the first Maharatna Public Sector Unit to have implemented the Anti-Bribery Management System (ABMS) across all its Plants/Units. This certification is a testimony to the commitment of SAIL in promoting transparency and boosting the confidence of all the stakeholders in dealing with SAIL.

- Re-Certification (Initial Certification date: 17.02.2006) of QMS as per ISO 9001:2015 for SAIL Vigilance has been done with validity from 16.02.2024 to 15.02.2027.
- In a Participative Vigilance initiative taken up by Vigilance, Ethics Club and Ethics Circle activities were undertaken in different Plants / units of SAIL during the FY 2023-24. In order to propagate ethical behavior in the society at large, Ethics Clubs have been formed in the schools of SAIL Townships at various Plants / Units with the belief that it is essential to create a strong ethical and moral foundation for children to facilitate formation of an ethically sustainable society.
- The concept of Learn from Each Other (LEO) Workshops has been started in SAIL Vigilance with the aim of arriving at result oriented solutions in common areas where complaints are being received in various Plants / Units and also to standardize the functioning of Vigilance. The LEO workshops provide a platform for Vigilance executives from SAIL Plants/units as well as other PSUs to collaborate with each other on carving out new paths to take on the challenges of various important topics pertinent to Vigilance. The main takeaways from these workshops are also submitted to Higher Management for further necessary actions. 1<sup>st</sup> LEO Workshop was organized by Bhilai Steel Plant Vigilance during 15-16<sup>th</sup> March, 2023 on how to deal with 'Contract Labour Payment related issues and Challenges'. 2<sup>nd</sup> LEO Workshop was organized by Bokaro Steel Plant Vigilance during 6-7<sup>th</sup> July, 2023 on 'Identification of Vigilance Angle and How to obtain response from concerned officials'. Participants included Vigilance Officers from various Units of SAIL Vigilance and Officers from other Organizations.

### 17.3 Rashtriya Ispat Nigam Ltd. (RINL)

Vigilance Department conducted studies on the procedures and systems, being followed in procurements, sale of goods and 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. Special Vigilance Awareness drives were undertaken 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, online quarter allotment, online data exchange between Vigilance and other departments were undertaken during the year, 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:

- 184 system surveillance checks were conducted which included 20 quality checks, 13 check on Contract provisions, 5 Inspection at HQ/Out station Marketing Offices and 5 periodic surprise checks on medical services.
- Organized sensitization sessions on preventive vigilance covering 662 employees.
- Scrutinized 42 files which includes System studies, single tender/nomination cases, emergency procurements and high value contracts for improving procedures, rules, policies, guidelines etc. were taken up and Vigilance observations/ recommendations were communicated to the concerned Departments.
- Vigilance Department 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) 2023, a three-month campaign was undertaken by conducting 76 sessions on Public Interest Disclosure and Protection of Informer (PIDPI) complaints, sensitizing 1556 employees. 10 sessions were conducted on Capacity Building programme sensitizing 494 employees. 04 long pending systemic improvements as suggested by vigilance were followed up and implemented during this period. As part of leveraging IT, in Online complaint handling system, complaint tracking mechanism was developed and implemented to enhance transparency.
- Observance of Vigilance Awareness Week – 2023 was done vigorously with the theme "Say No to Corruption; Commit to the Nation". Several programmes 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.

#### 17.4 NMDC Ltd.

NMDC vigilance department has undertaken several initiatives during the fiscal year 2023-24, with a particular focus on enhancing "Preventive Vigilance." This emphasis included conducting Preventive Checks in key areas, addressing complaints with appropriate corrective measures, and implementing system improvements. Additionally, regular training sessions on vigilance matters were organized for employees by the Vigilance functionaries at both the Corporate Office and various projects.

**Inspections and Checks:** Throughout the fiscal year 2023-24, the vigilance department conducted a total of 326 Preventive Checks, comprising 101 surprise checks, 94 regular inspections, 109 file studies, 14 audit para inspections, and 8 CTE type inspections across all projects and the Head Office.

**Structured Meetings:** Quarterly Structured Meetings of the vigilance department, chaired by the CMD, NMDC, were held to discuss vigilance activities and address pending issues for compliance.

**Complaint Handling:** A total of 160 complaints were received during the period and handled according to CVC guidelines. The Complaint Handling Policy of NMDC, effective from January 1, 2022, was made available on the company's website for wider dissemination.

**ISO Certification for Vigilance Department:** NMDC vigilance department obtained ISO 9001:2015 certification for its Quality Management System (QMS), ensuring routine surveillance audits and quality certification until June 30, 2025. Improvements were made based on suggestions from quality audits.

**Training Programs:** Various training sessions were organized to raise awareness among employees on topics such as procurement, ethics, personal finance management, cyber security, and dispute resolution. Eminent speakers delivered sessions on relevant subjects.



*Training programme of NMDC Ltd.*

**Online Vigilance Portal:** An Online Vigilance Portal was developed and launched, enhancing transparency, accountability, and data integrity in vigilance-related activities. A similar portal for Vigilance Clearance of employees was inaugurated, contributing to digitalization efforts.

**In-house Bulletin:** The release of in-house bulletins included Vigilance-related articles, CVC circulars, and guidelines for procurement awareness.

**System Improvements:** Seventy-one system improvement suggestions were proposed during the fiscal year, with several already implemented and the rest in progress.

**Integrity Pact Implementation:** Integrity Pact implementation was upheld, with the threshold value decreasing and adherence to contract signing requirements. The majority of contract values were covered under the Integrity Pact.

**Quarterly Review Meetings:** Regular quarterly review meetings were conducted to assess vigilance activities, discuss pending issues, and share knowledge among Vigilance officers.

**E-Platform:** Efforts were made to ensure transparency in transactions through the company's website, including details of contracts and bill payments. Vigilance also promoted E-Procurement platforms for tendering processes.

**Vigilance Awareness Week:** The Vigilance Awareness Week-2023 was observed with enthusiasm, involving employees in various activities and competitions themed around anti-corruption initiatives. Integrity pledges were administered, and winners were recognized during the concluding event.



*Vigilance Awareness Week in NMDC*

## 17.5 NMDC Steel Ltd.(NSL)

The vigilance department at NSL during the fiscal year has taken initiatives for the improvement of areas required for smooth functioning of the steel plant and aiming towards Preventive Vigilance. This was done by means of Conducting preventive checks in Key areas, studying the existing procedures and practices after the commercial operation of the plant, and suggesting system improvements including the training required.

**Inspections and Checks:** Throughout the fiscal year 2023-24, the vigilance department at NMDC Steel Limited has conducted a total of 77 Preventive Checks, comprising of 22 surprise checks, 22 regular inspections, 21 file studies, 9 audit para inspections, and 3 CTE type inspections across NSL, Nagarnar.

**Complaint Handling:** NSL has received 20 complaints which were handled as per CVC guidelines.

**Training Programs:** The vigilance department has suggested training which are conducted by the Human Resource Department on Core Issues in Arbitration and Contracts.

**Online Vigilance Portal:** NSL (Resulting Company) has been working in the online vigilance portal of NSL (Demerged Company).

**System Improvements:** System improvements have been suggested during the financial year, several of which are attended.

**Integrity Pact Implementation:** Integrity Pact implementation was upheld, with the threshold value decreasing and adherence to contract signing requirements.

**Quarterly Review Meetings:** Regular quarterly review meetings were conducted to assess vigilance activities, discuss pending issues, and share knowledge among Vigilance officers.

**E-Platform:** Vigilance has promoted use of E-Procurement platforms for tendering processes. Efforts were also made increasing procurement for goods and services through GeM.

**Vigilance Awareness Week:** The Vigilance Awareness Week-2023 was observed with enthusiasm, involving employees in various activities and competitions themed around anti-corruption initiatives. Integrity pledges were administered, and winners were recognized during the concluding event.

## 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:** 46 periodic, 33 surprise and 6 CTE type inspections have been carried out. Based on the inspections advisories have been issued to management.

**Complaint handling:** Vigilance Department has processed total 52 complaints including 01 complaint referred by Ministry up to 31.12.2023 (during calendar year 2023).

**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, 4 structured meetings of vigilance department with MOIL Management in presence of CMD MOIL have been done during the year 2023 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 2nd February 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, Work and Contract Manual, Purchase Manual, Account Manual are updated and available on MOIL website/intranet.

**Training Programs:** Vigilance Department conducted 15 training programs during the year on procurement process, conduct rules, Cyber Security and PIDPI resolution at the HO and Mines. covering total 436 employees.

**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 45 advisories and suggestions were given to the management for system improvement in different areas of working.

**Vigilance Awareness Week:** Vigilance Awareness Week was observed from 30th October to 5th November, 2023 at all Mines/Offices of MOIL Limited in which following activities were done in accordance with CVC guidelines with the theme **“Say no to corruption; commit to the Nation”**.

- Vimochan of Compendium of CVC circulars and annual magazine Shuchita during inaugural function of Vigilance awareness week.
- Walkathon for vigilance awareness amongst general public.
- Capacity building programme by organising training programme on preventive vigilance, complaint handling/investigation and drafting of charge sheet and Ethics and Governance.
- Essay/Slogan/quiz competition organised for employees, their wards, student schools and colleges for spreading vigilance awareness.
- Organising vendor meets and gram sabhas for vigilance awareness.

As per CVC guidelines Preventive Vigilance measures cum housekeeping activities were taken as precursor to VAW 2023 and a three-month campaign (from 16<sup>th</sup> Aug'23 to 15<sup>th</sup> Nov.'23) was organised in which action regarding following items were taken.

**A. Various activities have been undertaken for creating PIDPI awareness in MOIL.**

- Display of PIDPI posters in English, Hindi and Marathi at all conspicuous locations in mines and HO as well as on homepage of MOIL website.
- Interactions with over 250 employees, about 400 students of schools and colleges and 58 vendors.
- Publishing special newsletter on PIDPI.

- Display of PIDPI videos and jingle in MOIL Head Office office and website.
  - PIDPI gallery created at Head Office and entrance of auditorium.
- B.** Training to 10 trainers was given at specialized institutions as per the nomination received from CVC. These trainers have imparted training to about 250 employees during campaign period on different topics like PIDPI awareness, public procurement, cyber hygiene, systems and procedure, ethics and governance etc.
- C.** 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.
- D. Leveraging technology to dispose complaints:**
- There are 2 different modes of lodging and tracking of complaints in online mode.
    - a) Using “Lodge a Complaint” link available on MOIL Website.
    - b) MOIL Vigilance App.
  - Provision is being made in MOIL vigilance app to record signed (postal) complaints received in offline mode on the lines of CVC complaint management portal.

## 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-2023 was observed in all the offices of MECON from 30<sup>th</sup> October to 5<sup>th</sup> November 2023 in accordance with CVC’s communication Circular No. 06/08/23 dated 02.08.2023 with the theme “**अष्टाचार का विरोध करें; राष्ट्र के प्रति समर्पित रहें**” “**Say no to corruption; Commit to the Nation**”. The Vigilance Awareness Week–2023 was commenced with Pledge Ceremony on 30<sup>th</sup> October 2023 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 and as a part of outreach activities Vigilance awareness Week-2023, various programmes were organized by different offices of MECON viz, Ranchi, Delhi, Bangalore, Kolkata, 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 31<sup>st</sup> October 2023.
- Various preventive Vigilance awareness programs were conducted by Vigilance department at various offices. External experts of various domains were called to impart their knowledge

on various areas such as “Ethics and Governance; Vigilance Aspects; Customized Bids and Services; Recent Trends in Public Procurement; Cyber Hygiene and Security”; Disciplinary Proceedings etc. were conducted at MECON Ranchi.

- 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 and Manuals, SOPs of various activities, departmental proceedings, prosecution sanction, rotational transfer, systemic improvements etc. were discussed for implementation.
- MECON has signed Integrity Pact (IP) with 387 suppliers/ contractors.

### 17.8 MSTC Ltd.

The vigilance set up of MSTC is headed by Chief Vigilance Officer (CVO). The Vigilance Department is fulfilling vital functions for preventing corruption and unethical behavior within the organization and ensures transparency, accountability, adherence to ethical standards and fostering a culture of integrity. It is also promoting efficient operations by use of technology and compliance of guidelines to mitigate associated risks of misconduct. The Vigilance Department examined contract/purchase orders, scrutinized audit paras, signed agreed list with CBI and list of Officers of Doubtful Integrity was also prepared. Also identified Sensitive Posts and followed up their timely rotation transfer, conducted surprise checks and random scrutiny of bills as well as scrutiny of property returns. Some of the key activities undertaken by Vigilance Department during FY 2023-24 are as follows:

- 49 complaints received and 41 complaints disposed of, including 02 complaints referred by the Commission.
- 15 contracts/audit reports scrutinized.
- 10 Surprise Checks and 08 Regular Inspections were conducted.
- 01 CTE Type Inspection/Systems Study was conducted.
- Based on vigilance activities, 08 Systemic Improvements were recommended to the management.
- Scrutiny of 86 Property returns was undertaken which constitute more than 29.86% of total employees.
- **Training Programmes:** One Vendor Meet was organized by Vigilance Department during Vigilance Awareness Week-23. 13 Preventive Vigilance Training Sessions were organized through physical/online mode, which were attended by 120 employees. 06 Sensitization Programs were conducted at various MSTC offices located at Mumbai, Hyderabad, Kolkata (HO), Ranchi, Chennai, etc.
- In accordance with the CVC instructions, as a prelude to VAW-2023, a three-months campaign was undertaken successfully from 16th Aug. to 15th Nov. 2023 focusing on 06 preventive vigilance areas.

**VIGILANCE AWARENESS WEEK-2023:** Vigilance Awareness Week - 2023 was observed with the theme **“Say no to Corruption; Commit to the Nation”** in all offices of MSTC. Organization website 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.

### 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 Jan'2023 to Mar'2024, 5 structured meetings have been held with Management and all senior officials of the Company.

The Vigilance Department is certified for compliance to ISO certification 9001-2015 standards to ensure continuous improvement in Quality Management System. Certificate is renewed and is valid till 29.01.2025.

e-Procurement is in vogue and the threshold value for this is fixed at Rs.2 Lakhs and above. During the year, 95.32% of contracts by value are covered under this. All payments are being made through electronic mode.

During the year, 213 work/purchase/sale orders have been issued incorporating Integrity Pact Clause, covering 98.54% of contracts by value.

61 Scrutiny/examinations, 33 General inspections, 16 Surprise checks and 12 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-2023 was observed from 30th October to 5th November, 2023 at all the locations/offices of KIOCL Limited. The theme of this year's Vigilance Awareness week was **“Say No to Corruption; commit to the Nation”** **“अष्टाचार का विरोध करें; राष्ट्र के प्रति समर्पित रहें”**. Booklet on PIDPI awareness was published. On this occasion, the importance of observing the Vigilance Awareness Week and steps taken to strengthen vigilance activities were highlighted.

- During the year, 20 trainings/workshops/sensitization programs related to Vigilance were attended by officers including Vigilance Officers totaling 1339-man hours.
- As part of preventive vigilance and capacity building, Vigilance dept. has taken a proactive role and is organizing training sessions to cater to need of other depts. of KIOCL. In Jan'2024, a full day training session on “DPC” was conducted to all HR functionaries. Another session on good practices in procurement is also scheduled in May 2024.

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

### 18.1 Centralised 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.

CPGRAMS portal specific to Ministry of Steel was revamped and aligned with the CPGRAMS 7.0 launched by Department of Administrative Reforms and Public Grievances (DARPG). The upgraded CPGRAMS Version 7.1 enables a guided registration process for the citizens through drop-down menu / questionnaire and also provides for transition of grievance to the concerned grievance redressal officer directly by skipping intermediate levels and thus reducing redressal time of a grievance.

The details of grievances dealt with in the CPGRAMS for the period from 01.01.2023 to 31.03.2024 is as under:

Ministry/CPSE	Outstanding as on 01.01.2023	Received during 01.04.2023 to 31.03.2024	Disposed off during 01.01.2023 to 31.03.2024	Pending on 31.03.2024
Ministry of Steel	65	1564	1548	81
SAIL	18	673	655	36
RINL	5	55	55	5
NMDC Ltd.	7	292	297	2
NMDC Steel Ltd.	0	22	22	0
MECON Ltd.	5	30	34	1
MOIL Ltd.	0	17	17	0
KIOCL Ltd.	0	10	10	0
MSTC Ltd.	0	41	41	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)

In RINL, structured Grievance Handling System is in place 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. & NMDC Steel Ltd. (NSL)

The grievance redressal machinery in NMDC & NSL 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.

## 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 on the website.

In MECON, there is a three-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](http://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 redressed. 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 Bangalore to all the production units, project offices and liaison offices. Vendors and 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 procedure evolved under the code of discipline in March, 1977 which covers all the employees, both Executives and Non-Executives. Ever since the introduction, the scheme has been working satisfactorily. In view of the limited number of employees in the organization, the Grievances are easily identified and redressed at the root level itself.

Any vendors/stakeholders who seek to convey her/his grievances to the Company can contact the Directors of Grievances personally, through landline or through post. Two Directors and one

Chief General Manager are designated as Directors of Grievances for redressal of the Public/Staff Grievances.

The development of Sevottam Compliant Citizen's Charter has been put in place in our corporate website: [www.klocltd.in](http://www.klocltd.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 and 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, KIOCL and MSTC under the Ministry actively participated in the 'Special Campaign for Disposal of Pending matters' (SCDPM 2.0), held from 2<sup>nd</sup> October, 2023 to 31<sup>st</sup> October, 2023. During the campaign, 234915 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.; 19432 physical files have been weeded out and 12207 e-file have been closed during campaign period. In addition, several pending PG appeals/ PG grievances, MPs references etc were settled. 261 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 March 31st, 2024, six persons [two hearing handicapped (HH), one visually handicapped (VH), two orthopedically handicapped (OH), one locomotor disability] 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.
- 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 is governed by the provisions of the Mines Act and Rules and Regulations thereof and considering the safety factor it is not possible to employ PwBDs in jobs involving working in the mines/plant. However efforts are being made to induct PwBDs in posts where field work is not involved and at present NMDC has 108 employees with disabilities in various posts.

NMDC has taken several steps for convenience of differently enabled persons visiting the Offices of the Company like providing ramp way, auditory signal in the lifts etc. Employees in the Projects who become disabled while in service are redeployed in identified posts.

#### **19.5 NMDC Steel Ltd.(NSL)**

NSL being a steel Industry is governed by the provisions of the Factory Act 1948 and Rules and Regulations thereof and considering the safety factor, where ever possible the employment of PwBDs candidates employed. At present NMDC STEEL LIMITED has 13 employees (including 3 Executives) with PwBDs category in various posts.

NSL has taken several steps for the convenience of differently enabled persons visiting the Offices of the Company like providing ramp way, auditory signal in the lifts etc. Employees who become disabled while in service are redeployed in identified posts.

#### **19.6 MOIL Ltd.**

Facilities in line with 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 March 2024, MOIL has 20 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, are followed. 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 31.03.2024 is 1012, out of which persons belonging to disabled / physically handicapped category in various posts is 12.

### **19.8 MSTC Ltd.**

As on 31st March 2024, MSTC has 09 employees belonging to PwD category.

### **19.9 KIOCL Ltd.**

As on 31st March 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 2023-24 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 Deputy Director (Official Language) looks after the work pertaining to implementation of Official Language Policy and Hindi Translation work. At present it consists of one Deputy Director, one Assistant Director, two Senior Translation Officers, two Junior Translation Officers, two Stenographers 'D' and one 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. Four 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. During the period under review, one meeting of Hindi Salahakar Samiti has been organized on 25.04.2023.



*Meeting of Hindi Salahakar Samiti at Srinagar*

### **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 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/employees 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 14<sup>th</sup> September, 2023 on the occasion of the Hindi Diwas. Hindi Fortnight was organized in the Ministry from 14<sup>th</sup> September to 29<sup>th</sup> September, 2023. 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 officials/officers 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 PSUs**

A new initiative in the form of a Monitoring Committee for Official Language Implementation in PSUs is constituted in the Ministry under the Chairmanship of Sh. Sanjay Roy, Joint Secretary. During 2023-24, three meetings were held on 24.08.2023, 09.11.2023 and 07.03.2024. This monitoring committee keeps a close watch on the targets regarding implementation of official language in PSUs 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. 19 such inspections have been carried out during the period under review. Apart from this, Parliamentary Committee on Official Language inspected different offices of PSUs under the administrative control of Ministry of Steel and Ministry had its representation in these meetings.

### 20.1.7 Hindi Workshops

Hindi Workshops are being organized in the Ministry at regular intervals. On 26-07-2023, a hindi workshop was organized on 'Noting and Drafting in Hindi' and on 21.03.2024, a workshop was organized with an aim to motivate and enthuse officials to work in Rajbhasha. 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 1<sup>st</sup>, three 2<sup>nd</sup> and five 3<sup>rd</sup> cash prizes of Rs.5000/-, Rs.3000/- and Rs.2000/- respectively. In the financial 2023-24, five employees participated and two were awarded. This scheme is aimed at encouraging the employees to do their original official work in Hindi.

In FY 2023-24, few officers of this Ministry were nominated in practice based 'Parangat' course conducted by Central Hindi Training Institute, Department of Official Language. In this course, two employees were awarded the cash prize of Rs.10,000/- each on obtaining more than 70% marks.

## 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.
- Rajbhasha Fortnight was organized by SAIL Corporate Office, New Delhi and various Hindi Competitions like Pictorial Expression, Antakshari, Memoir Writing, Poetry Recitation, Quiz competition, Dictation etc were held.
- A Hindi seminar 'विश्व पटल पर हिन्दी' was organized on the occasion of Vishwa Hindi Diwas on 10 January, 2024.
- International Mother tongue day was observed on 21 February, 2024 by organizing a regional language activity among the Corporate office employees.

- SAIL in house Hindi magazine 'Ispat Bhasha Bharti' was awarded Rajbhasha Samman-2023 by Vishwa Hindi Parishad in International Hindi Sammelan held at Vigyan Bhawan, Delhi on 20 September, 2023.

### 20.3 Rashtriya Ispat Nigam Ltd. (RINL)

Initiatives taken towards progressive use of Hindi are as follows:

**Training and Workshops:** 134 employees were trained under Hindi Prabodh/Praveen/Pragya courses conducted by Hindi Teaching Scheme, Department of Official Language, Ministry of Home Affairs, Government of India. 192 employees were trained to work on computers in Hindi through Unicode. 391 Employees were trained in Practice based Hindi Workshop. 190 employees were trained on Presentation regarding Official Language Policy.

**Inspections:** 59 Departments at Head Quarters and ROs, BSOs, Liaison Offices were inspected through offline / Online mode. 2 Offices were inspected by Ministry of Steel; 1 Office was inspected by 3rd Sub-committee of Parliament Committee on Official Language.

### 20.4 NMDC Ltd.

NMDC effectively continued the implementation of Official Language Policy of Government of India 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.
- Ministry of Official Language Implementation Committee were also held every quarter.
- All India Seminar of Official Language Officers was organized under the aegis of the Ministry of Steel at Head Office on 19 March 2024, in which the officials of the Ministry of Steel, the Official Language Officers of TOLIC (Undertakings), Hyderabad-Secunderabad, Rajbhasha Officers of all the Production Projects and the personnel associated with Rajbhasha in Regional Offices of NMDC participated.
- Rajbhasha Technical Seminars were organized at Bailadila Iron Ore Mines, Kirandul Complex and Bailadila Iron Ore Mines, Bachel Complex.
- National Hindi Kavi Sammelan was Organised in which poets of repute recited poems. The event was attended by officials of Ministry of Steel and members of NMDC family.
- Head Office organized an Inter-PSU Hindi speech competition on August 4, 2023 for the personnel of all CPSUs located in Hyderabad.
- A Hindi workshop for all CPSUs was organized on January 23, 2024 under the aegis of TOLIC (Undertaking), Hyderabad-Secunderabad.
- Hindi fortnight was organized in all projects and units along with Head office.
- Rajbhasha Officers of NMDC headquarters and all the projects attended Hindi Day and Third All India Rajbhasha Conference organized by the Department of Official Language,

Ministry of Home Affairs in Pune on 14 and 15 September, 2023. On this occasion, the Deputy General Manager (Official Language) of the Corporation was awarded the first prize in the Vetter category as well as in the Translator category (PSUs) in the All India Kanthasth 2.0 Competition.

- Half yearly Hindi magazine “KhanijBharati” was published from the Head Office. In addition, projects also published Hindi/bilingual/trilingual magazines such as BailaSamachar, BacheliSamachar, DoniSamachar, HeeraSamachar etc. Apart from this, magazines like ‘Technical Kshitij’ and ‘Sarjana’ were published in Hindi from Kirandul.
- Diamond Mining Project, Panna also held the responsibility of Convenor of Town Official Language Implementation Committee, Panna.
- NMDC received the “IspatRajbhashaSammaan (Second)” among steel PSUs at the meeting of the Hindi Advisory Committee held by the Ministry of Steel on April 25, 2023 at Srinagar.
- NMDC Limited, Head Office received the Rajbhasha Shield-First Award in the category of Mid-Sized PSUs in Hyderabad from Town Official Language Implementation Committee (Undertakings), Hyderabad-Secunderabad.
- Official Language House Magazine “KhanijBharati” of Head Office also won first prize in the e-magazine category of Town Official Language Implementation Committee (Undertakings), Hyderabad-Secunderabad.
- NMDC was awarded the Rajbhasha Award for best implementation in the field of Official Language Hindi at the International Hindi Conference organized by the Vishwa Hindi Parishad, New Delhi on September 20-21, 2023 at Vigyan Bhawan.

## 20.5 NMDC Steel Ltd. (NSL)

- Official Language Fortnight was organized from 14 September to 28 September 2023, 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 in Hindi Language (Writing and Typing) to be provided.
  - vi) Hindi font to be made available in Departmental I.T. infrastructure.
  - vii) Encouraging employees to do their work in Hindi.
- A monthly Hindi usage incentives scheme was implemented and an 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 “KhanijBharti” magazine.
- Provided a multilingual facility (Unicode) installed in the computers of the project and to provide Hindi font 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 would 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 the City Official Language Implementation Committee, Jagdalpur.

## 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 rganized regularly for the employees. MECON is an important member of Town Official Language Implementation Committee (PSU), Ranchi and actively participates in all the programmes.

- During the financial year 2023-24 Rajbhasha Vibhag inspected Hindi implementation work in 11 departments of Head Office, Ranchi.
- During the financial year 2023-24 Rajbhasha Vibhag of Head Office, Ranchi inspected Hindi implementation work of its subordinate Offices Bhilai, Bokaro, Delhi and Rourkela.
- **“Hindi Pakhwara”** was observed in MECON at Head Office as well as in all the site offices of the company from 14.09.2023 to 29.09.2023. 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-2023" were held.

## 20.9 KIOCL Ltd.

Year 2023-24 was full of activities and achievements in terms of progressive use of the official language. KIOCL Limited received the second prize during the Hindi Advisory Committee meeting held in Srinagar on 25<sup>th</sup> April 2023 under the Chairmanship of Hon'ble Union Minister of State for Steel. KIOCL was awarded the first prize in the category of small offices in the first half-yearly meeting held on 16<sup>th</sup> August, 2023 by the Town Official Language Implementation Committee (Undertaking), Bengaluru. In another achievement, Pellet Plant Unit of KIOCL Limited received the 2<sup>nd</sup> Award for Official Language Excellence from TOLIC, Mangaluru.

As another noteworthy activity, as per the objectives of the annual program based on the inspiration and encouragement of the Official Language Policy of the Government of India, the Corporate Office of KIOCL Limited organized Hindi Yakshagan Sandhya on 30.12.2023.

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 2023-24 of the Department of Official Language (Ministry of Home Affairs).

The Corporate Official Language Department of KIOCL participated in the 3<sup>rd</sup> All India Official Language Conference organized in Pune on 14-15 September, 2023. The Department of Official Language organized innovative Hindi competitions during Hindi Pakhwada, 2023, in which all groups of employees participated. The winners of various competitions held during Hindi Pakhwada were ceremoniously given awards in gracious presence of eminent litterateur. The undertaking has implemented an incentive scheme for original work in Hindi and this year also all the eligible employees were awarded cash prizes.

KIOCL Limited's e-magazine 'Srigandha' was published every quarter during 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.

Subsequently, adopting the basic mantra of inspiration and encouragement, KIOCL published advertorials and good thoughts related to Hindi in newspapers on World Hindi Day on January 10, 2024. With active participation in the Regional Official Language Conference of South and South Western Regions on 19 January, 2024, an exhibition of displays showing progressive progress was organized.

## EMPOWERMENT OF WOMEN

### 21.1 Ministry of Steel

As on March 31<sup>st</sup>, 2024, 35 women are employed in the Ministry of Steel which constitutes 17.76% of the total manpower of 197. 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. The committee did not receive any complaint during the period April 1, 2023 to March 31<sup>st</sup>, 2024.

### 21.2 Steel Authority of India Ltd. (SAIL)

- As on 31.03.2024, SAIL has 3523 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, women employees constitute 3.47% of its total manpower. About 6.65% of the executives and 1.95% of the 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 Counseling Skills, social skills including Gender Sensitivity for sensitizing its employees on issues relating to employment of women. Three exclusive workshops on POSH were conducted for its employees.

#### **21.4 NMDC Ltd.**

NMDC Limited employs 369 women employees which constitute about 6.6% of its total manpower. The company provides equal opportunities for the sexes at all levels, be it selection, recruitment, placement or promotion. The number of women in senior positions is growing.

Facilities like separate wash rooms, rest rooms etc. have been provided in the Head Office and Projects. NMDC has also been sponsoring women employees for training on awareness in healthcare, family planning etc. All statutory obligations of the Company are reflected in its policies for women employees. WIPS cells have been constituted in all the Projects.

#### **21.5 NMDC Steel Ltd.(NSL)**

NMDC Steel Limited as an employer is committed toward the empowerment of women by providing equal rights and opportunity at all levels, in terms of remuneration, promotion.

Every year the strength of women employees is rising, on 31.03.2024, NSL employs 179 women employees which constitute about 10% of its total manpower.

NSL takes the initiative for the development of women in the areas of healthcare, education, and skill development who are living in nearby villages.

All statutory obligations of the Company are reflected in its policies for women employees which is equal to men employees. WIPS cell and Internal Complaints committee under Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 have been constituted.

Every year, on the occasion of Women's Day, the contribution of women in various fields is recognized by felicitating remarkable women of various sectors viz entrepreneurship, housekeeping, panchayat, police department etc.

Under Sexual Harassment Workplace Prevention Week, Awareness and Sensitization Programme on Sexual Harassment at Workplace for Women Employees is conducted with the help of Visual Aid along with illustrations, FAQs, and case studies in order to make it more engaging.

#### **21.6 MOIL Ltd.**

MOIL has 823 women employees which constitute 15.02% 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](http://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.



*Women Empowerment Training in MOIL*

### **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 HR Department from time to time. The number of women employees in various posts is 93.

### **21.8 MSTC Ltd.**

MSTC Limited employs 47 women employees which constitute about 16.20% 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 as per the provisions of The Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013. Internal Complaints Committee (ICC) has been set up to redress complaints received

regarding sexual harassment. All employees (permanent, contractual, temporary, trainees) are covered under this policy.

### **21.9 KIOCL Ltd.**

As on 31.03.2024, total number of women employees is 22 which are 3.65% 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.

Under CSR, main thrust is given for promotion of education of poor children, supply nutritional food to improve nutritional outcomes for children etc. KIOCL has not engaged any child labour in its premises as per the provisions under relevant act.

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 and 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.

# 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 2023-24, 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 1,00,000 villagers at their doorsteps in the peripheral areas. SAIL, in association with Akshaya 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 6650 BPL category students with free facilities, viz. education, midday meals, uniform, shoes, text books, etc. Over 440 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. Over 1000 school students are awarded annual scholarships.



*Distribution of Schooling aids under CSR in SAIL*

**Women Empowerment and Sustainable Income Generation:** Vocational and skill development trainings targeted towards sustainable income generation are being imparted to 1155 youths and 1331 women in various skills.



*Training programme of Women*

**Skill Development:** About 462 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 'Durgpaur Handicapped Happy Home' Durgapur, and 'Cheshire Home' Burnpur. Old age homes are being supported at different Plant townships like 'Siyansadan' 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, 2023. Approx. 2,000 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 Mamit in Mizoram.

**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)

The focus for CSR generally includes the areas mentioned in Schedule VII of the Companies Act 2013 viz. Health Care, Nutrition, Education, Skill Development, Senior Citizen Care, Rural Development, Sanitation and Swachh Bharath activities etc. Some of the major CSR initiatives of RINL during 2022-23 are as follows:

#### Major CSR initiatives undertaken:

##### Health and Nutrition:

**Nutritional Support to combat classroom hunger:** RINL is providing Mid-day meals to around 1200 school-going children belonging to BPL families. The project aims at preventing classroom hunger, malnutrition and the children to have improved health and concentration on studies.

##### Education:

- **Arunodaya Special School:** Established in the year 1995 caters to the children with intellectual disabilities such as learning impairment, mental retardation, cerebral palsy, autism, hearing loss, Down syndrome, etc. With a view to promote special education, RINL

has been extending financial support to meet the deficit expenditure of the school since beginning, under CSR. Nearly 115 students from surrounding villages of the Plant are being benefitted.

- **Pathasala Ki Abharanam:** Augmenting educational facilities by providing 200 Dual desk benches to Schools of Ukkunagaram to ensure quality education.

**Skill development:** RINL is providing Skill Development Training Program in CAD/CAM courses (6 months duration) to 15 unemployed youth through MSME Technology center, Visakhapatnam. The trainees / beneficiaries have been trained on various design softwares like CATIA, ANSYS and SOLID WORKS SOFTWARE etc.



*Skill Development Training to Tribal women on making Phenyl as part of CER initiative in RINL*

**Senior citizen care:**

- **Elderly Support:** Support for adoption of 100 abandoned and destitute elderly residents for one year at the Old Age Home situated in Digha, Patna (Bihar) is done, aiming for improving condition of elderly people.

**Peripheral / rural development:**

- **Sanitation and Public Health:** Community and peripheral development facilities at Singareni Village near Madharam Mines through provision of Toilet blocks Construction.

**Swachh Bharath and Sanitation:**

- **Swachh Bharat:** In addition to Safai Pakhwada activities, 111 Shram Daan activities involving 1065 employees, were organized. Further, in line with the directions of Government of India, Safai Pakhwada, year long cleanliness drives as per department wise calendar were observed by various departments.

**22.4 NMDC Ltd.**

Information regarding CSR activities taken up from 1<sup>st</sup> January, 2023 to 31<sup>st</sup> March, 2024:

**Major CSR initiatives undertaken:****Education:**

- **Science Education Centre-** NMDC has taken up an initiative as co-contributor to setting up of a Science Education Centre at PARAM, in the outskirts of Bengaluru by contributing to a portion of the work related to construction of second floor of the aforesaid Science Education Centre.
- **Saksham 100% disabled friendly School** - A residential school with a capacity of 200 students (100 boys and 100 girls) established for children with special needs. The idea is to educate and facilitate their schooling with appropriate aids and materials. NMDC has partnered with State Authorities of Chhattisgarh for creation of a campus for visually impaired, hearing impaired, physically handicapped and mentally retarded students.
- **Educational Equipments and Allied Services to Schools-** Extended financial assistance to Ramakrishna Mission Ashram, Gwalior for procurement of 37 educational equipment and allied services for their CBSE and MPBSE Schools at Gwalior for providing quality education to students.



*Providing quality education at MPBSE Schools in Gwalior by NMDC*

**Protection of Environment and promotion of Environmental Sustainability:**

- **Bio Methanon Plant at NIT-** NMDC has entered into an agreement with NIT Rourkela for contributing to the setting of one ton per day Bio methanon Plant at their campus. This game changing initiative is expected to promote the cause of sustainability and create wealth from kitchen waste, in line with Gobardhan Scheme of Government of India.

**Rural Development:**

- NMDC has signed an agreement with Zilla Parishad, Parbhani, Maharashtra for construction of 4 nos. CC Roads in Jamb Village/Tai for providing better transportation facilities to the villagers.
- As part of CSR commitment to villages surrounding mining projects NMDC, has taken up various developmental initiatives for providing infrastructural facilities like construction of Community Centers for rural community to socialize, construction of Anganwadi Centres and construction of Boundary walls in Anganwadis to provide proper psychological, physical and social development of children below the age of six years and construction of Shops etc. for income generation.



*Health Camp organized by NMDC Limited*

**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.

Company is carrying out CSR activities as per the recommendations of the Board Level CSR Committee and with the approval of the Board. The CSR activities/projects are implemented by MOIL using internal resources of the company itself or through an identified suitable agency or through District Administration or through providing financial assistance to NGOs/ specialized agencies/trusts/institutions/foundations / societies/bodies / etc. in accordance with the provisions of Companies Act, 2013 and Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021, as amended from time to time.

- Towards empowerment of Divyang Persons, MOIL has signed an MOU with Artificial Limb Manufacturing Company (ALIMCO) which is a Central Public Sector Enterprises, with an objective of benefiting the persons with disability. MOIL in collaboration with ALMICO is supposed to provide and distribute Artificial Limbs and other Rehabilitation Aids to the disabled persons in Balaghat, Bhandara, Nagpur Districts, Gadchiroli (Aspirational District) in Maharashtra and aspirational district of U.P. state, i.e., Chitrakoot. This year, the scheme has been implemented in Chitrakoot which has benefitted 138 Beneficiaries.



*Tricycle distribution under CSR*

- Towards health and empowerment of women and children, company is providing Ante-Natal Healthcare Services in Aspirational District Nandurbar by reaching out to pregnant women with interventions that may be vital to their health and wellbeing and that of their infants.
- Towards health and wellbeing of community, company has provided financial aid to R K HIV AIDS RESEARCH and CARE CENTRE for stamping out of TB, Lung Disease, Sickle Cell anemia, Maternal Child Health Care in Mandla(MP). Company has provided ambulance to Public Health Centre, Paraswada(MP), Support to Sanjeevan Home for Aged, Amgaon (Deoli) and 'OFROT Foundation' by providing Ambulance.



Health Camp organized by MOIL Limited

- Towards empowerment of women, MOIL sponsors 15 Girls (from economically weaker section) under Saksham Balika Yojna every year since 2019 for perusing Bachelor's Degree Course in Nursing and General Nursing and Mid-course in association with Apollo College of Nursing Hyderabad. This year also 15 Girls have been sponsored under the program.
- Towards imparting quality education in rural areas, MOIL has taken up many works which includes a) Construction of MOIL DAV Public School at Munsar Mine b) Construction of Additional Floor at Saraswati Mandir, an educational institute for Deaf and Mute Children at Nagpur. Maharashtra c) Development of Play Ground in Central School, Balaghat d) Construction of Boundary Wall Government Women's Polytechnic, Balaghat etc.
- MOIL runs a CBSE registered school at Sitasongi in Bhandara District in association with DAV Group of Schools. The school has modern educational facilities with 35 class rooms, scientific laboratories, library, etc. MOIL is also supporting four schools (two each in Bhandara district of Maharashtra and Balaghat district of Madhya Pradesh) under its education and skill development initiative.
- For community development, company has engaged professional agency named BAIF Institute for Sustainability and Livelihood Development, (BISLD) in identified 22 villages including 11 villages Balaghat District (M.P), 3 Villages of Bhandara District Maharashtra and 8 Villages in Nagpur District of Maharashtra). Major thrust areas of developmental activities being in Livelihood, Education, Women empowerment, Anganwadi based intervention, Water resources management, Community resources development, Agricultural training, Infrastructure development, Livestock development training, Health, cleanliness and sanitation etc.

### 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:

- During 32<sup>nd</sup> Mines Environment and Mineral Conservation (MEMC) week, organized by Indian Bureau of Mines (IBM), nine mines of MOIL bagged awards in different categories.

- MOIL's AVIGHNA QC, Balaghat mine and PARAKH QC, Tirodi mine won Super gold awards in case study presentations and multiple accolades in the 34<sup>th</sup> Chapter Level Convention CCQC -2023 at Nagpur.
- MOIL bags runner up trophy at the 52<sup>nd</sup> All India Mines Rescue Competition 2023, Telangana.
- SKOCH Award in the Gold Category for its Community Development Program Project under CSR.
- Best in Diversity and Inclusion management award from Top Rankers Management at New Delhi.
- Best Strategic Central PSE Award -Manganese Ore Mining Award at the 6<sup>th</sup> IPSE Awards 2024, New Delhi.
- MOIL has conferred with two awards for MOIL Bharti magazine and Best implementation of Hindi official language from Vishwa Hindi Parishad, New Delhi.
- PRCI Awards 2023 in 4 different categories like CSR Campaign, Best Corporate Event, Vision Leadership of the year and Best use of social media at the 17<sup>th</sup> Global Communication Conclave, PRCI Awards 2023.
- PRSI Awards 2023 for PR and Branding and Hindi Newsletter at the International PR Festival, 2023 New Delhi.
- Exploration and Extraction Innovation, HR Excellence, CMD Leadership, HR and CSR Leadership award conferred by Governance Now at 10<sup>th</sup> PSU Awards.
- MOIL was conferred CSR Commitment Award amongst mini-ratna Category-I CPSEs by Governance Now on 16<sup>th</sup> Feb 2023 at New Delhi.
- Ms. Usha Singh, Director (HR), MOIL has been honored with CSR Leadership Award at the 10<sup>th</sup> PSU Awards on 22<sup>nd</sup> March 2024, New Delhi.

## 22.6 MECON Ltd.

The major developmental activities carried out by MECON during period 1<sup>st</sup> April, 2023 to 31<sup>st</sup> March, 2024 are as follows:

- Providing Nutritional Supplements ( Moong Dal, Masoor Dal, Aarahar Dal, Gota Moong, Rajma, Soyabean, Satu, Gur, Dalia, Bengal Gram, Moongfali) and medicinal supplements (Vit. A, Vit. D, Deworming, Calcium and Iron) for the Children of Adopted Villages – Pancha, Rupru, Pandutoli and Outreach Children of Township School of Ranchi District and Adopted Villages – Rai and Sungi of Khunti District of Jharkhand.
- Providing Digital Ante Natal Kits (DANK) consisting of " Digital Haemoglobinometer, Digital BP Monitor, Digital Weighing Machine for Infant, Digital Weighing Machine for Adult and Fetal Doppler." to 131 health sub centres of Ranchi. (Priority Project of Ranchi District Administration)

- Providing Multi purpose Vehicle to Old Age Home, Vill.-Kulgu Kalendey, Block-Nagri, Dist.-Ranchi being run by M/s Vihar Samaj Kalyan Sansthan, Hawaii Nagar for their day-to-day work, emergency and healthcare service of inmates
- Running of 5 Community Education Centres for the under-privileged Children in Ranchi District.
- Providing Public Address System, Steel Book Shelf and Games items to Shree Doranda Balika Uchch Vidyalaya, Doranda, Ranchi and Smart TV, Water Filter and Exercise Cycle to KOSHISH, a special school cum vocational training centre for Divyang Children at Argora, Ranchi.
- 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. The number of students being trained in these centres is around 60.
- MECON contributed an amount of Rs. 79.68 Lakhs (Rs.Seventy Nine Lakhs Sixty Eight Thousand only) to “PM CARES Fund” in Sept’2023.

## 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.

### Major CSR initiatives undertaken:

- Medical equipment for Charitable Dispensary at Belur Math, West Bengal
- Advanced Life Support Vehicle for Idukki, Kerala
- Ambulance for District Hospital at Mandla, Madhya Pradesh
- Ambulance and Medical Equipment for Health Care Center at Gyalshing, Sikkim
- Medical Equipments at Neo Natal Unit, OPD Complex and Blood Storage Room for Primary health Care Center at Kalahandi, Odisha
- Sanitary Pad Vending Machines and Incinerators for girls at 30 Government schools and colleges at Hojai, Assam
- Phacoemulsification Equipment for Kalyanam Karoti, Mathura, Uttar Pradesh
- Medical Equipment for Eye Center at Sircilla, Telangana and Raygada, Odisha.
- High Frequency Fixed RAD System (Digital X-Ray) for Medical Center at Idukki, Kerala

- Refrigerated Centrifuge and Blood Collection Monitors for Blood Bank Center at Hemophilia/Thalassemia Patients at Davangere, Karnataka.
- Sanitary Pad Vending Machines and Incinerators at Ambedkar Nagar, Uttar Pradesh
- Medical Equipment for Eye Care Center at Chennai, Tamil Nadu
- Ambulance for backward communities and farmers of Nadia, West Bengal
- Ambulance for East Midnapore, West Bengal
- Contribution to PMCARES Fund.

## 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 projects are benefitted directly and indirectly through the various development projects. For the year 2023-24. CSR budget was Rs.465.67 lakhs out of which Board has approved CSR plan of Rs.87.50 lakhs. During the Financial Year Company has spent Rs.47.50 lakhs.

Some of the major CSR activities undertaken by KIOCL during the year 2023-24 are given below;

### (i) Health Care:

- Financial assistance for provision of Jetting Machines to around 55 Government High schools across Yadgir District which is an Aspirational District in Karnataka.
- 20 No's Tricycles for differently abled persons in Sandur Taluk, Bellary District, Karnataka

### (ii) Animal Welfare:

- Financial assistance for Renovation of Leopard Enclosure at Pilikula Biological Par, Mangaluru, Karnataka.

### (iii) Promotion of Sports:

- Financial assistance for conducting National Level Chess Tournament at Mangaluru, Karnataka.

### (iv) Art and Culture:

- Financial Assistance for Organizing Tribal Festival in Ram Nagar, Mandla District, Madhya Pradesh

### (v) Promotion of Education:

- 20 Computers to Government First Grade College for Digital Library in Sandur Taluk, Ballary District.
- Provision of Generator Set to Auditorium of Government PU College In Sandur Taluk, Ballary District.

## 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 Officer. 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/Assistant Public Information Officers and Appellate Authorities. 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 2023-24 (from 1<sup>st</sup> April 2023 to 31<sup>st</sup> March 2024), Ministry of Steel has received 267 RTI Applications, which were duly disposed off within the stipulated time. 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 01.04.2023 to 31.03.2024 is as under:

Public Authority	Application Received during 01.04.2023 to 31.03.2024	Application Disposed of during 01.04.2023 to 31.03.2024	Application Pending on 31.03.2024
Ministry of Steel	267	252	15
SAIL	2246	1882	364
RINL	451	440	11
NMDC Ltd.	337	321	16
NMDC Steel Ltd.	52	44	08
MOIL Ltd.*	225	202	23
MECON Ltd.	81	73	08
KIOCL Ltd.	48	44	04
MSTC Ltd.	152	140	12

\*This includes application pending as on 01.04.2023.

### 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](http://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.

### 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](http://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](http://www.meconlimited.co.in) w.e.f. 19<sup>th</sup> September, 2005. A Central Public Information Officer (PIO) and the 1<sup>st</sup> 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 is 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 on-line and have been uploaded on CIC site.

### 23.9 KIOCL Ltd.

RTI Act, 2005 which was enacted by Government of India with an objective to promote openness, transparency and accountability in the administration and to provide good governance in the country. It also gives the opportunity to every citizen to secure access to information from public authorities. KIOCL being a CPSE falls within the ambit of aforesaid regulation, had operationalized the same from the date it came into effect.

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](http://www.kioclltd.in). The obligation of the preparation of the manual prescribed in clause (b) subsection (1) Section (4) has been complied with 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. Further, as per the Ministry of Steel directives the system of submission of quarterly return to the CIC has been introduced.

**ANNEXURE - I**

**MINISTRY OF STEEL  
(ISPAT MANTRALAYA)<sup>1</sup>**

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 processing.<sup>2</sup>
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, namely<sup>3</sup>
  - 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.<sup>4</sup>
  - ix. Bharat Refractories Limited (BRL);
  - x. Metal Scrap Trade Corporation (MSTC);
  - xi. Ferro Scrap Nigam Limited; and
  - xii. Bird Group of Companies.

<sup>1</sup>Modified vide Amendment series no. 238 dated 23.05.1998 and 243 dated 15.10.1999.

<sup>2</sup>Modified vide Amendment series no. 306 dated 31.07.2014 (earlier modified vide Amendment series no. 281 dated 01.09.2005).

<sup>3</sup>Modified vide Amendment series no. 286 dated 01.06.2006.

<sup>4</sup>Omitted vide Amendment series no. 337 dated 06.12.2017.

(Refer Chapter-II, Para 2.1)

## ANNEXURE - II

**MINISTER IN CHARGE AND OFFICERS  
IN THE MINISTRY OF STEEL****(Down to Deputy Secretary level)**(As on 31<sup>st</sup> March, 2024)

Minister of Steel	Shri Jyotiraditya M Scindia
Minister of State for Steel	Shri Faggan Singh Kulaste
Secretary	Shri Nagendra Nath Sinha
Additional Secretary and Financial Adviser	Smt. Sukriti Likhi
Joint Secretaries	Shri Abhijit Narendra Shri Sanjay Roy
Deputy Director General	Smt. Swapna Bhattacharya
Economic Adviser	Shri Ashwini Kumar
Chief Controller of Accounts	Shri Arvind Kumar
Directors	Smt. Sudershan Mendiratta Shri Neeraj Agrawal Smt. Neha Verma Shri Devidatta Satapathy
Additional Industrial Adviser	Shri Paramjeet Singh
Deputy Secretary	Shri Gopalakrishnan Ganesan Shri Amit Pankaj Shri Subhash Kumar Shri Ajit Kumar Sah Smt. Gurpreet Gadhok Shri Nitin Jain Shri G. Sarathy Raja (Lateral Entry)

(Refer Chapter-III, Para 3.4)

## ANNEXURE - III

## PRODUCTION OF IRON &amp; STEEL

('000 tonne)

Sl.No.	ITEM / PRODUCER	2019-20	2020-21	2021-22	2022-23	2023-24
<b>PRODUCTION</b>						
<b>I.</b>	<b>CRUDE STEEL :</b>					
	<b>SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL</b>					
	Oxygen Route	46,735	43,299	52,515	56,665	58,881
	E.A.F.Units	21,647	21,754	22,359	23,389	26,490
	Other Producers					
	Oxygen Route	1,838	1,786	2,070	2,127	2,726
	E.A.F.Units	6,719	7,653	8,138	4,815	5,121
	Induction Furnaces	32,198	29,052	35,211	40,201	51,081
	<b>TOTAL (Crude Steel)</b>	<b>1,09,137</b>	<b>1,03,545</b>	<b>1,20,293</b>	<b>1,27,197</b>	<b>1,44,299</b>
	% share of Other Producers	37.3%	37.2%	37.8%	37.1%	40.8%
<b>II.</b>	<b>PIG IRON :</b>					
	<b>SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL</b>	1,193	1,413	1,462	1,184	1,909
	Other Producers	4,227	3,464	4,801	4,677	5,455
	<b>TOTAL (Pig Iron)</b>	<b>5,421</b>	<b>4,877</b>	<b>6,262</b>	<b>5,861</b>	<b>7,364</b>
	% share of Other Producers	78.0%	71.0%	76.7%	79.8%	74.1%
<b>III.</b>	<b>SPONGE IRON :</b>					
	Gas Based	6,564	6,175	8,866	8,007	9,785
	Coal Based	30,539	28,201	30,334	35,614	41,776
	<b>TOTAL (Sponge Iron )</b>	<b>37,102</b>	<b>34,376</b>	<b>39,200</b>	<b>43,621</b>	<b>51,560</b>
	% share by Process (Coal Based)	82.3%	82.0%	77.4%	81.6%	81.0%
<b>IV.</b>	<b>FINISHED STEEL (Production) (Alloy/Non-Alloy) :</b>					
	<b>SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL</b>	61,286	55,339	65,055	72,265	77,698
	Other Producers	41,336	40,865	48,542	50,931	61,455
	<b>TOTAL (Finished steel)</b>	<b>1,02,621</b>	<b>96,204</b>	<b>1,13,597</b>	<b>1,23,196</b>	<b>1,39,153</b>
	% share of Other Producers	40.3%	42.5%	42.7%	41.3%	44.2%

Source: JPC

(Refer Chapter-III, Para 3.4)

**ANNEXURE - IV**  
**PRODUCTION OF CRUDE STEEL**

('000 Tonnes)

Sl. No.	Producer	2019-20			2020-21			2021-22			2022-23			2023-24		
		Working Capacity	Production	% Utilisation												
<b>A. Public Sector Unit</b>																
1	SAIL	19,632	16,156	82	19,632	15,213	77	20,632	17,363	84	20,632	18,292	89	20,632	19,241	93
2	RINL	6,300	4,749	75	6,300	4,302	68	6,300	5,272	84	7,300	4,137	57	7,300	4,411	60
3	NMDC Steel Ltd.	-	-	-	-	-	-	-	-	-	-	-	-	3,000	540	18
	<b>Total Public Sector</b>	<b>25,932</b>	<b>20,905</b>	<b>81</b>	<b>25,932</b>	<b>19,515</b>	<b>75</b>	<b>26,932</b>	<b>22,636</b>	<b>84</b>	<b>27,932</b>	<b>22,429</b>	<b>80</b>	<b>30,932</b>	<b>24,192</b>	<b>78</b>
<b>B. Pvt. Sector Unit</b>																
4	TSL Group	19,400	18,525	95	19,400	17,204	89	20,600	19,464	94	20,600	19,805	96	21,500	20,783	97
5	AMNS (Essar Steel Ltd.)	10,000	7,121	71	10,000	6,696	67	9,600	7,295	76	9,600	6,688	70	9,600	7,683	80
6	Jindal Steel and Power Ltd.	8,600	5,861	68	8,600	6,859	80	8,100	7,458	92	8,100	7,509	93	9,600	7,645	80
7	JSW Steel Ltd.	18,000	15,970	89	18,000	14,780	82	23,000	18,023	78	-	-	-	-	-	-
8	JSWL Group	-	-	-	-	-	-	-	-	-	25,750	23,623	92	28,080	25,608	91
9	OTHER BOF	4077	1,838	45	4,077	1,786	44	3,177	2,070	65	3,177	2,127	67	3,177	2,185	69
10	OTHER EAF	11,794	6,719	57	11,640	7,653	66	11,614	8,138	70	8,743	4,815	55	7,828	5,121	65
11	OTHER IF	44,496	32,198	72	46,266	29,052	63	51,040	35,211	69	57,397	40,201	70	68,797	51,081	74
	<b>Total Private Sector</b>	<b>1,16,367</b>	<b>88,232</b>	<b>76</b>	<b>1,17,982</b>	<b>84,030</b>	<b>71</b>	<b>1,27,130</b>	<b>97,658</b>	<b>77</b>	<b>1,33,367</b>	<b>1,04,768</b>	<b>79</b>	<b>1,48,583</b>	<b>1,20,107</b>	<b>81</b>
	<b>Total (Public Sector + Private Sector)</b>	<b>1,42,299</b>	<b>1,09,137</b>	<b>77</b>	<b>1,43,914</b>	<b>1,03,545</b>	<b>72</b>	<b>1,54,062</b>	<b>1,20,293</b>	<b>78</b>	<b>1,61,299</b>	<b>1,27,197</b>	<b>79</b>	<b>1,79,515</b>	<b>1,44,299</b>	<b>80</b>
	<b>Share of Public Sector (%)</b>	<b>18</b>	<b>19</b>		<b>18</b>	<b>19</b>		<b>17</b>	<b>19</b>		<b>17</b>	<b>18</b>		<b>17</b>	<b>17</b>	

Note: 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	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Oxygen Route</b>					
SAIL	15,946	15,054	17,153	18,055	18,980
RINL	4,749	4,302	5,272	4,137	4,411
TSL Group	16,399	15,163	17,215	17,514	18,335
JSW Steel Ltd.	9,641	8,780	10,380		
JSWL Group				14,236	14,530
Jindal Steel & Power Ltd.			2,495	2,723	2,625
Other Oxygen Route	1,838	1,786	2,070	2,127	2,726
<b>Total Oxygen Route :</b>	<b>48,573</b>	<b>45,085</b>	<b>54,585</b>	<b>58,792</b>	<b>61,607</b>
<b>Electric Route Electric Arc Furnace</b>					
SAIL	210	158	210	237	261
TSL Group	2,126	2,041	2,249	2,290	2,448
JSW Steel Ltd.	6,329	6,000	7,643		
JSWL Group				9,387	11,079
AM/NS (Essar Steel Ltd.)	7,121	6,696	7,295	6,688	7,683
Jindal Steel & Power Ltd.	5,861	6,859	4,963	4,786	5,020
Other Electric Arc Furnace	6,719	7,653	8,138	4,815	5,121
<b>Total Electric Arc Furnace :</b>	<b>28,367</b>	<b>29,407</b>	<b>30,498</b>	<b>28,204</b>	<b>31,611</b>
<b>Electric Induction Furnace</b>	<b>32,198</b>	<b>29,052</b>	<b>35,211</b>	<b>40,201</b>	<b>51,081</b>
<b>Total Electric Route :</b>	<b>60,564</b>	<b>58,460</b>	<b>65,708</b>	<b>68,405</b>	<b>82,692</b>
<b>Grand Total :</b>	<b>1,09,137</b>	<b>1,03,545</b>	<b>1,20,293</b>	<b>1,27,197</b>	<b>1,44,299</b>

Source: Joint Plant Committee (JPC)

(Refer Chapter-III, Para 3.4)

## ANNEXURE - VI

## Production of Hot Metal

('000 Tonnes)

PLANTS	2019-20	2020-21	2021-22	2022-23	2023-24
Steel Authority of India Ltd.	17,437	16,581	18,734	19,409	20,496
Rashtriya Ispat Nigam Ltd.	5,161	4,681	5,774	4,407	4,700
TSL Group	19,019	17,775	19,405	19,835	21,434
AM/NS (Essar Steel Ltd.)	3,632	3,331	3,335	3,375	3,573
JSW Steel Ltd.	15,220	14,389	16,794	-	-
JSWL Group	-	-	-	22,476	23,549
Jindal Steel and Power Ltd.	5,262	5,862	6,068	6,165	6,116
<b>(A) Sub Total</b>	<b>65,730</b>	<b>62,619</b>	<b>70,111</b>	<b>75,667</b>	<b>79,867</b>
<b>(B) Other Producers</b>	<b>7,281</b>	<b>6,647</b>	<b>8,112</b>	<b>5,496</b>	<b>7,177</b>
<b>Total (A+B)</b>	<b>73,011</b>	<b>69,266</b>	<b>78,223</b>	<b>81,162</b>	<b>87,045</b>
<b>% Share Of Other Producers</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>7%</b>	<b>8%</b>

Source: JPC

(Refer Chapter-III, Para 3.4)

## ANNEXURE - VII

## PRODUCTION OF PIG IRON

('000 tonnes)

Public Sector Unit	2019-20	2020-21	2021-22	2022-23	2023-24
Steel Authority of India Ltd.	566	631	554	361	418
Rashtriya Ispat Nigam Ltd.	48	38	80	40	0
NMDC Steel Ltd.	-	-	-	-	300
<b>Total Public Sector</b>	<b>615</b>	<b>669</b>	<b>634</b>	<b>401</b>	<b>718</b>
<b>Pvt. Sector Unit</b>					
TSL Group	184	179	98	108	576
Jindal Steel and Power Ltd.	133	284	496	534	281
JSW Steel Ltd.	262	281	234	-	-
JSWL Group	-	-	-	141	633
Other Pvt. Unit	4,227	3,464	4,801	4,677	5156
<b>Total Private Sector</b>	<b>4,806</b>	<b>4,208</b>	<b>5,628</b>	<b>5,460</b>	<b>6,646</b>
<b>Total production (A+B)</b>	<b>5,421</b>	<b>4,877</b>	<b>6,262</b>	<b>5,861</b>	<b>7,364</b>

Source: JPC

(Refer Chapter-III, Para 3.4)

## ANNEXURE - VIII

**PRODUCTION OF FINISHED STEEL  
(Non-Alloy & Alloy Steel)**

('000 tonnes)

PLANTS	2019-20	2020-21	2021-22	2022-23	2023-24
Steel Authority of India Ltd.	12,441	11,089	13,829	15,282	16,255
Rashtriya Ispat Nigam Ltd.	3,588	2,694	3,750	3,643	3,731
TSL Group	18,688	16,562	18,745	19,459	21,152
AM/NS (Essar Steel Ltd.)	7,015	6,608	7,217	6,677	7,549
JSW Steel Ltd.	15,076	14,050	16,367	-	-
JSWL Group	-	-	-	21,785	23,620
Jindal Steel and Power Ltd.	4,478	4,335	5,147	5,418	5,750
<b>Sub Total (A) :</b>	<b>61,286</b>	<b>55,339</b>	<b>65,055</b>	<b>72,265</b>	<b>77,698</b>
Other Producers (B)	41,336	40,865	48,542	50,931	61,455
<b>Total Production (A+B)</b>	<b>1,02,621</b>	<b>96,204</b>	<b>1,13,597</b>	<b>1,23,196</b>	<b>1,39,153</b>
<b>% Share Of Others</b>	<b>40.3</b>	<b>42.5</b>	<b>42.7</b>	<b>41.3</b>	<b>44.2</b>

Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - IX

CATEGORYWISE PRODUCTION OF FINISHED STEEL

(’000 Tonnes)

CATEGORY	2019-20	2020-21		2021-22		2022-23		2023-24							
	SAIL, RINL, TSL GROUP, AM/NS, JSWL, JSPL	OTH-ERS	TOTAL	SAIL, RINL, TSL GROUP, AM/NS, JSWL, JSPL	OTH-ERS	TOTAL	SAIL, RINL, TSL GROUP, AM/NS, JSWL, JSPL	OTH-ERS	TOTAL						
<b>FINISHED STEEL (NON-ALLOY)</b>															
BARS & RODS	13,998	26,329	40,327	11,687	25,484	37,171	15,320	31,878	47,198	16,298	35,380	51,679	17,502	41,422	58,924
STRUCTURALS	2,153	5,332	7,485	1,651	4,843	6,494	2,212	5,268	7,480	2,633	5,976	8,609	2,819	7,487	10,306
RLY. MATERIALS	1,780	34	1,813	1,470	23	1,493	1,331	14	1,346	1,478	15	1,493	1,524	20	1,544
TOTAL(NON-FLAT)	17,931	31,694	49,625	14,807	30,350	45,157	18,863	37,160	56,024	20,409	41,372	61,781	21,845	48,930	70,774
PM PLATES	4,493	188	4,681	4,165	81	4,246	5,236	119	5,355	5,238	100	5,338	5,634	116	5,751
HR COIL/STRIP	37,833	5,361	43,194	35,213	5,992	41,204	39,638	5,598	45,236	42,826	3,606	46,433	47,523	5,700	53,223
<b>TOTAL(FLAT)</b>	<b>42,326</b>	<b>5,549</b>	<b>47,876</b>	<b>39,378</b>	<b>6,073</b>	<b>45,451</b>	<b>44,874</b>	<b>5,717</b>	<b>50,591</b>	<b>48,064</b>	<b>3,706</b>	<b>51,770</b>	<b>53,157</b>	<b>5,817</b>	<b>58,974</b>
<b>TOTAL (NON-ALLOY)</b>	<b>60,257</b>	<b>37,244</b>	<b>97,500</b>	<b>54,185</b>	<b>36,422</b>	<b>90,608</b>	<b>63,738</b>	<b>42,877</b>	<b>1,06,615</b>	<b>68,474</b>	<b>45,078</b>	<b>1,13,551</b>	<b>75,001</b>	<b>54,746</b>	<b>1,29,748</b>
<b>FINISHED STEEL (ALLOY)</b>															
NON-FLAT	878	1,718	2,596	814	2,176	2,990	1,040	2,793	3,832	1,380	2,909	4,289	1,509	3,150	4,659
FLAT	48	196	245	167	169	336	85	253	337	2,343	240	2,583	1,054	305	1,359
<b>TOTAL (ALLOY)</b>	<b>926</b>	<b>1,914</b>	<b>2,841</b>	<b>981</b>	<b>2,345</b>	<b>3,326</b>	<b>1,124</b>	<b>3,046</b>	<b>4,170</b>	<b>3,723</b>	<b>3,148</b>	<b>6,872</b>	<b>2,563</b>	<b>3,455</b>	<b>6,019</b>
<b>FINISHED STEEL (STAINLESS)</b>															
NON-FLAT	0	526	526	0	577	577	0	733	733	0	846	846	0	1,027	1,027
FLAT	102	1,652	1,754	172	1,520	1,692	193	1,886	2,078	68	1,859	1,927	133	2,226	2,360
<b>TOTAL (STAINLESS)</b>	<b>102</b>	<b>2,177</b>	<b>2,280</b>	<b>172</b>	<b>2,097</b>	<b>2,270</b>	<b>193</b>	<b>2,619</b>	<b>2,811</b>	<b>68</b>	<b>2,705</b>	<b>2,773</b>	<b>133</b>	<b>3,253</b>	<b>3,387</b>
<b>FINISHED STEEL (NON-ALLOY + ALLOY + STAINLESS)</b>															
TOTAL(NON-FLAT)	18,809	33,938	52,747	15,622	33,103	48,725	19,903	40,686	60,589	21,790	45,126	66,915	23,354	53,107	76,460
<b>TOTAL (FLAT)</b>	<b>42,477</b>	<b>7,398</b>	<b>49,874</b>	<b>39,717</b>	<b>7,762</b>	<b>47,479</b>	<b>45,152</b>	<b>7,856</b>	<b>53,007</b>	<b>50,475</b>	<b>5,805</b>	<b>56,280</b>	<b>54,344</b>	<b>8,348</b>	<b>62,692</b>
<b>TOTAL FINISHED STEEL</b>	<b>61,286</b>	<b>41,336</b>	<b>1,02,621</b>	<b>55,339</b>	<b>40,865</b>	<b>96,204</b>	<b>65,055</b>	<b>48,542</b>	<b>1,13,597</b>	<b>72,265</b>		<b>1,23,196</b>	<b>77,698</b>	<b>61,455</b>	<b>1,39,153</b>

Source: JPC

(Refer Chapter-III, Para 3.4)

## ANNEXURE - X

## CATEGORY-WISE IMPORT OF IRON &amp; STEEL

('000 tonnes)

Sl.No.	CATEGORY	2019-20	2020-21	2021-22	2022-23	2023-24
<b>I</b>	<b>Semi-finished Steel(Non-Alloy)</b>					
	Semis	108	113	12	330	433
	Re-rollable Scrap	236	144	119	286	175
	<b>Total</b>	<b>344</b>	<b>257</b>	<b>131</b>	<b>616</b>	<b>609</b>
<b>II</b>	<b>Finished Steel (Non-Alloy)</b>					
	<b>Non-Flat</b>					
	Bars & Rods	273	143	63	115	158
	Structurals	38	31	14	9	6
	Rly.Materials	51	63	68	76	76
	<b>TOTAL Non-Flat</b>	<b>362</b>	<b>237</b>	<b>145</b>	<b>199</b>	<b>239</b>
	<b>Flat</b>					
	Plates	353	379	237	161	660
	HR Sheets	6	1	0	0	10
	HR Coils/Skelp/Strips	1,646	828	811	1,525	3,003
	CR Coils/Sheets	374	222	340	386	330
	GP/GC Sheets	907	767	735	914	1,290
	Elec. Sheets	540	460	430	264	329
	TMBP	0	0	0	0	0
	Tin Plates	183	138	54	11	7
	Tin Free Steel	73	48	12	3	2
	Pipes	345	158	150	215	324
	<b>TOTAL Flat</b>	<b>4,428</b>	<b>3,001</b>	<b>2,769</b>	<b>3,479</b>	<b>5,955</b>
	<b>TOTAL Fin. Steel (Non-Alloy)</b>	<b>4,790</b>	<b>3,238</b>	<b>2,913</b>	<b>3,678</b>	<b>6,195</b>
	<b>TOTAL STEEL (Non-Alloy)</b>	<b>5,134</b>	<b>3,495</b>	<b>3,044</b>	<b>4,294</b>	<b>6,803</b>

Sl.No.	CATEGORY	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Alloy/Stainless Steel</b>					
	Non-Flat	379	344	214	233	198
	Flat	1,599	1,171	1,542	2,111	1,927
	Semi-finished	53	32	38	386	720
	<b>TOTAL FIN. STEEL (Alloy/ Stainless)</b>	<b>1,978</b>	<b>1,515</b>	<b>1,756</b>	<b>2,344</b>	<b>2,125</b>
	<b>TOTAL STEEL (Alloy/ Stainless)</b>	<b>2,031</b>	<b>1,547</b>	<b>1,794</b>	<b>2,730</b>	<b>2,845</b>
	<b>TOTAL FIN. STEEL (Non- Alloy + Alloy/Stainless)</b>	<b>6,768</b>	<b>4,752</b>	<b>4,669</b>	<b>6,022</b>	<b>8,320</b>
	<b>TOTAL Steel (Non-Alloy + Alloy/Stainless)</b>	<b>7,164</b>	<b>5,042</b>	<b>4,838</b>	<b>7,024</b>	<b>9,648</b>
<b>III</b>	<b>Other Steel Items.</b>					
	Fittings	162	113	135	173	101
	Misc.Steel Items	333	287	350	240	168
	Steel Scrap	6,566	5,571	4,845	9,915	8,695
<b>IV</b>	<b>Iron</b>					
	Pig Iron	11	9	26	118	366
	Sponge Iron	47	55	35	300	608
<b>V</b>	<b>Ferro-Alloys</b>	<b>664</b>	<b>664</b>	<b>600</b>	<b>344</b>	<b>516</b>
	<b>GRAND TOTAL</b>	<b>14,947</b>	<b>11,742</b>	<b>10,830</b>	<b>18,114</b>	<b>20,102</b>

Source: JPC

(Refer Chapter-III, Para 3.4)

## ANNEXURE - XI

## CATEGORY-WISE EXPORT OF IRON &amp; STEEL

('000 tonnes)

CATEGORY	2019-20	2020-21	2021-22	2022-23	2023-24
<b>SEMIS (Non-Alloy)</b>	2,819	6,553	4,866	1,597	1,022
<b>FINISHED STEEL (Non-alloy)</b>					
<b>Non-Flat</b>					
Bars & Rods	507	974	2,096	346	427
Structurals	152	116	203	185	102
Railway Materials	9	16	2	0	3
<b>Total Non-Flat</b>	<b>669</b>	<b>1,107</b>	<b>2,301</b>	<b>531</b>	<b>533</b>
<b>Flat</b>					
Plates	306	538	875	528	629
H R Coils/Sheets	4,818	6,654	6,185	1,661	2,750
C R Sheets/Coils	571	495	1,059	352	517
GP/GC Sheets	896	952	1,730	1,132	1,652
Elec. Sheets	44	42	42	37	28
Tinplates	16	17	39	12	21
Tin Free Steel	3	2	2	0	0
Pipes	267	139	137	231	647
<b>Total Flat</b>	<b>6,921</b>	<b>8,838</b>	<b>10,067</b>	<b>3,953</b>	<b>6,244</b>
<b>Total Fin. Steel (Non-Alloy)</b>	<b>7,589</b>	<b>9,945</b>	<b>12,369</b>	<b>4,484</b>	<b>6,776</b>
<b>Total Steel (Non-Alloy)</b>	<b>10,408</b>	<b>16,498</b>	<b>17,234</b>	<b>6,081</b>	<b>7,798</b>
Non-Flat Alloy/Stainless	266	301	634	304	280
Flat Alloy/Stainless	501	538	491	1,929	430
<b>Total Finished Steel (Alloy/Stainless)</b>	<b>766</b>	<b>839</b>	<b>1,125</b>	<b>2,233</b>	<b>710</b>
<b>Semi-Finished (Alloy/Stainless)</b>	<b>8</b>	<b>48</b>	<b>12</b>	<b>24</b>	<b>34</b>
<b>Total Steel (Alloy/Stainless)</b>	<b>775</b>	<b>887</b>	<b>1,137</b>	<b>2,257</b>	<b>744</b>
<b>Total Fin. Steel (Non-Alloy+Alloy/Stainless)</b>	<b>8,355</b>	<b>10,784</b>	<b>13,494</b>	<b>6,716</b>	<b>7,487</b>
<b>Total Steel (Non-Alloy + Alloy/Stainless)</b>	<b>11,183</b>	<b>17,385</b>	<b>18,372</b>	<b>8,338</b>	<b>8,542</b>
PIG IRON	422	1,099	1,213	629	385
SPONGE IRON	837	511	788	1,085	1,309

Source: JPC

(Refer Chapter-I and V)

## ANNEXURE - XII

## COMPARATIVE PBT (PROFIT BEFORE TAX) OF STEEL CPSEs

(Rs. in crore)

S. No.	CPSE/Company	2019-20	2020-21	2021-22	2022-23	2023-24* (Prov.)
1.	SAIL	3170.66	6879.03	16038.72	2636.91	3687.67
2.	RINL	(-)4287.51	(-)1259.02	941.58	(-)3236.46	(-)4887.19
3.	NMDC Ltd.	6122	8902	12981	7637	8012
4.	NMDC Steel Ltd.					(-)2201**
5.	MOIL Ltd.	340.49	240.11	523.29	334.45	387.00
6.	MECON Ltd.	87.03	19.11	19.54	34.01	51.05
7.	MSTC Ltd.	129.49	114.68	220.08	313.48	272.67
8.	KIOCL Ltd.	63.68	410.23	411.03	(-) 122.76	(-) 82.76#

\*Provisional April, 23 to March, 2024

\*\*company started its commercial operations w.e.f. 31.08.2023 only

# Provisional and un-audited

(Refer Chapter-I and V)

## ANNEXURE - XII A

## COMPARATIVE PAT (PROFIT AFTER TAX) OF STEEL CPSEs

(Rs. in crore)

S. No.	CPSE/COMPANY	2019-20	2020-21	2021-22	2022-23	2023-24* (Prov.)
1.	SAIL	2021.54	3850.02	12015.04	1903.07	2733.11
2.	RINL	(-)3910.17	(-)1012.16	913.19	(-)2858.74	(-)4450.54
3	NMDC Ltd.	3610	6253	9398	5529	5632
4.	NMDC Steel Ltd.					(-) 1560**
5.	MOIL Ltd.	248.22	176.63	376.98	250.59	293.34
6.	MECON Ltd.	69.00	6.24	13.70	31.01	51.05
7.	MSTC Ltd.	75.20	101.07	200.09	239.23	204.92
8.	KIOCL Ltd.	43.48	301.17	313.41	(-) 97.67	(-) 82.76#

\*Provisional April, 23 to March, 2024

\*\*company started its commercial operations wef 31.08.2023 only

# Provisional and un-audited

(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	2019-20	2020-21	2021-22	2022-23	2023-24* (Prov.)
1.	SAIL	8094	6074	16510	15829	13919
2.	RINL	2119.53	1888.05	3005.69	3032.70	2981.67
3.	NMDC Ltd.	5300	6239	8895	4816	6645
4.	NMDC Steel Ltd.	-**	-**	-**	52.88	99.99
5.	MOIL Ltd.	188.61	95.17	438.34	324.50	329.97
6.	MECON Ltd.	98.81	108.64	96.64	145.90	94.03
7.	MSTC Ltd.	73.20	73.72	412.79	227.24	225.32
8.	KIOCL Ltd.	84.91	148.54	168.11	63.44	46.51#

\*Provisional April, 23 to March, 2024

\*\* Earlier it was part of NMDC Ltd.

# Provisional and un-audited

(Refer Chapter-V)

## ANNEXURE - XIII A

**CONTRIBUTION MADE TO THE  
STATE GOVERNMENT BY STEEL CPSEs**

(Rs. in crore)

S. No.	CPSE/Company	2019-20	2020-21	2021-22	2022-23	2023-24* (Prov.)
1.	SAIL	3250	2084	7792	7796	8096
2.	RINL	587.91	322.26	474.19	530.90	463.17
3.	NMDC Ltd.	2997	2809	10631	9733	9625
4.	NMDC Steel Ltd.	-**	-**	-**	2.05	7.96
5.	MOIL Ltd.	111.07	90.49	126.35	143.83	147.70
6.	MECON Ltd.	13.25	12.06	11.46	23.45	19.06
7.	MSTC Ltd.	16.26	8.67	20.93	23.52	26.69
8.	KIOCL Ltd.	2.56	3.02	4.30	21.85	6.16#

\*Provisional April, 23 to March, 2024

\*\* Earlier it was part of NMDC Ltd.

# Provisional and un-audited

## ANNEXURE - XIV

## BUDGET AND EXPENDITURE ON CSR BY STEEL CPSEs

(Rs. in lakh)

Sl. No.	CPSE/ Company	2019-20		2020-21		2021-22		2022-23		2023-24*(Prov.)	
		Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp
1	SAIL	3300##	2756	5000	4718	8186	9424	15795	16246@@	15875	16193 \$
2	RINL	820	796	861	1011	1136	1142	33	33	0	0
3	NMDC Ltd.	20000	19999	16450	15862	25000	28733	21000	8758	19707	4615
4	MOIL Ltd.	1220*	1274.22	1138.78*	1318.12	854.38*	1320.11	710.61*	1373.54**	703.99*	1666.49***
5	MECON Ltd.	547.03	330.52	310.50	44.68	343.20	149.84	277.11	61.45	271.46	117.05
6	MSTC Ltd.	-	54.00	-	-	-	17.84	272.00	301.69	376.00	377.60#
7	KIOCL Ltd.	208.08	331.42	871.77	884.66	438.70	133.58	589.96	554.98	87.50	47.50®

\*CSR budget is considered 2% of PBT of 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.

#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 FY 2019-20, though statutorily the CSR Budget was 'Nil', SAIL had allocated funds of Rs. 3300 Lakhs out of Operations Budget to sustain ongoing CSR activities so as to fulfill its responsibilities as responsible Corporate.

®Out of Rs.87.50 lakhs, CSR budget Rs.47.50 laksh has been spents on 31<sup>st</sup> March, 2024. 03 projects worth Rs.40 lakhs have been identified as ongoing CSR project.

@@includes an amount of Rs. 5173 lakhs transferred to Unspent CSR Bank A/c 2022-23.

§includes an amount of Rs. 7826 lakhs transferred to Unspent CSR Bank A/c 2023-24.

(Refer Chapter-IX, Para 9.2.3)

## Annexure- XV

## Release of Grants under R&amp;D Scheme

S. No.	Title of the R&D project	2022-2023 (in Rs. Lakh)			2023-24 (in Rs. Lakh)		
		Total	Capital	Revenue	Total	Capital	Revenue
1	Development of steel slag based cost effective eco-friendly fertilizers for sustainable agriculture and inclusive growth ICAR-IARI	69.41225	35.69767	33.71458			
2	Technology development at Pilot scale for energy-efficient production of medium carbon ferromanganese in electric arc furnace	86	86	0			
3	Processing of Tin slag and Technological Extraction of critical elements for high strength low alloy steels, NML Jamshedpur	10	10	0			
4	Selective removal of CO2 from the gas produced from coal/ biomass using suitable media for gas enrichment	5.775	0	5.775			

S. No.	Title of the R&D project	2022-2023 (in Rs. Lakh)			2023-24 (in Rs. Lakh)		
		Total	Capital	Revenue	Total	Capital	Revenue
5	Development of Rotary Hearth Furnace Technology for treating off grade iron ore fines of Indian origin including magnetite ore by IIT Kharagpur	37	37	0			
6	Optimization of Silos, Bins, and Hoppers design through Modeling- Primary intended for Iron ore storage by IIT Bhubneshwar	1.55722	0	1.55722			
7	Developing facile electrocatalytic CO <sub>2</sub> to CO conversion technology by IIT Bombay	75	50	25	10.78836	0	10.78836
8	Designing a sustainable, low-energy consuming, and modular CO <sub>2</sub> capture and mineralization technology	153.75	125	28.75			

S. No.	Title of the R&D project	2022-2023 (in Rs. Lakh)			2023-24 (in Rs. Lakh)		
		Total	Capital	Revenue	Total	Capital	Revenue
9	Eco-Friendly Solution with Metal Recovery and Value Added Products from Stainless Steel Spent Pickle Liquor: A Zero Waste Business Model	10.50553	1.06233	9.4432			
10	Development of sustainable technology for efficient utilisation of goethitic ore through magnetising roasting using Biochar				51.2226	45	6.2226
11	Investigation on Direct Reduction using Ammonia and Electric Furnace Steelmaking: A Novel Green Steelmaking Route				125	76.8	48.2
12	Development of process for beneficiation of Lean grade iron ores having less than 45% Fe content				32.904	0	32.904

S. No.	Title of the R&D project	2022-2023 (in Rs. Lakh)			2023-24 (in Rs. Lakh)		
		Total	Capital	Revenue	Total	Capital	Revenue
13	Upgradation of lean grade ore/ slimes through reduction roasting to develop blast furnace grade pellet				42.3	10	32.3
14	Development of Dry Beneficiation Process to Recover Iron Values from the Low-grade Iron Ores and Fine				32.085	12.5	19.585
15	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				0.00001	0	0.00001
16	Technology development for utilization of spent EAF graphite electrode to prepare high commercial value graphene products				0.00001	0	0.00001

S. No.	Title of the R&D project	2022-2023 (in Rs. Lakh)			2023-24 (in Rs. Lakh)		
		Total	Capital	Revenue	Total	Capital	Revenue
17	Strategic Re-cycling of cold rolling mill oil sludge of Jindal Stainless Ltd to recover the valuable				0.00001	0	0.00001
18	Beneficiation of coking coal by hybrid mode: dry and wet processing to reduce the ash forming impurities				0.00001	0	0.00001
	<b>Total</b>	<b>449</b>	<b>344.76</b>	<b>104.24</b>	<b>294.3</b>	<b>144.3</b>	<b>150</b>

**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 20.04.2024 for inclusion in the Annual Report.





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