Azadi Ka Amrit Mahotsav

G20 भारत 2023 INDIA

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ANNUAL REPORT 2022-23

सत्यमेव जयते

Ministry of Steel
Government of India

In a major feat towards building an **'Aatmanirbhar Bharat'**, Steel Authority of India Limited (SAIL) has supplied about 30000 Tonnes of the entire DMR grade speciality steel for the nation's first indigenously built Aircraft Carrier INS Vikrant, the first swadeshi Aircraft Carrier for Indian Navy, commissioned on 2nd September, 2022 at Cochin Shipyard Ltd.

ANNUAL REPORT
2022-23

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Government of India

CONTENTS

CHAPTER-I

HIGHLIGHTS

1.1 Trends and Developments in Steel Sector

- During the period of January – December 2022, India was the 2nd largest producer of Crude Steel in the world [Provisional, Source: World Steel Association].

- Over the last five years, the Crude Steel production expanded from 109.25 Million Tonne (MT) in 2018 to 124.72 MT (provisional) in 2022. Crude Steel production in 2022 showed a year on year growth of 5.5% over 2021.

- Capacity for domestic crude steel expanded from 142.236 Million Tonne Per Annum (MTPA) in 2018 to 157.585 MTPA in 2022.

- During 2022 (January-December), the following was the Steel industry scenario:

  a) Crude Steel production of 124.72 MT, SAIL, RINL, TSL Group, AM/NS, JSWL and JSPL together produced 76.681 MT with a share of 61% in total production, which was up by 4.9% over the year.The rest amounting to 48.039 MT came from the Other Producers. With 82% share in total Crude Steel production, the Private Sector produced 102.618 MT Crude Steel which was up by 7.7% over the year.

  b) Pig Iron production was at 6.283 MT, up by 7.3% over the year. With a share of 20% in total Pig Iron production, SAIL, RINL, TSL Group, JSWL and JSPL together produced 1.233 MT which was down by 22.1% over the year. The rest came from the Other Producers with a growth of 18.2% over the year. The Private Sector produced 5.851 MT which was up by 14.1% over the year.

  c) Facts for Total Finished Steel (non-alloy + alloy/stainless) in 2022 (provisional):

     - Production of Total Finished Steel stood at 118.714 MT showing a growth of 6.0% over the year.

     - Export of Total Finished Steel stood at 7.906 MT showing an annual decline of 38.2%.

     - Import of Total Finished Steel was at 5.615 MT, up by 12.3% over the year.

     - India was a net exporter of Total Finished Steel.

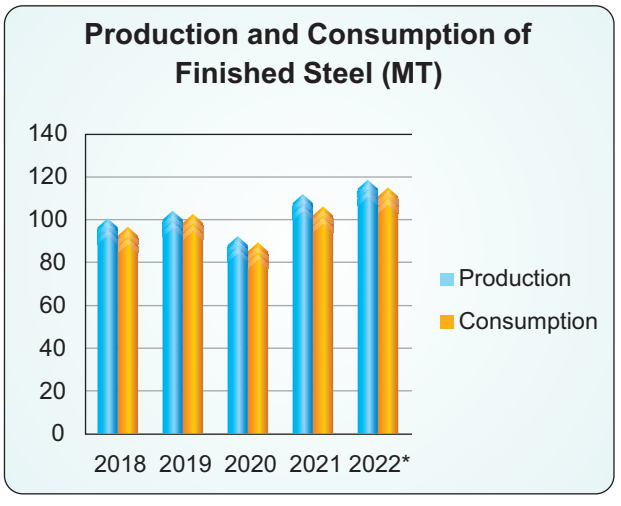
- Consumption of Total Finished Steel was 114.894 MT showing a growth of 8.2% over the year.

Detailed information on production, consumption, import and export of total Finished Steel and production of Crude Steel for the last five years (2018-2022) are shown in the table below:

(in Million Tonne)

Item	2018	2019	2020	2021	2022*
Crude Steel					
Production	109.250	111.344	100.256	118.201	124.720
Finished Steel					
Production	100.574	104.062	92.231	111.953	118.714
Consumption	96.737	102.622	89.331	106.226	114.894
Import	7.295	7.440	4.463	5.001	5.615
Export	6.692	8.205	10.150	12.799	7.906

Source: JPC, Provisional*, January-December, 2022



*Provisional

1.2 Major Policy Interventions

Production Linked Incentive (PLI) Scheme: PLI Scheme for domestic production of specialty steel has been approved with an outlay of Rs. 6322 crore by the Cabinet. The scheme is set to commence from FY: 2023-24 (PLI to be released in FY: 2024-25). 57 MoUs have been finalized out of 67 applications from 30 companies which were selected under the Production Linked Incentive (PLI) Scheme for Specialty Steel. This will attract committed investment of Rs. 29530 crore with a downstream capacity addition of 25 Million Tonne and employment generation potential of 70000.

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

Circular Economy in Steel: Ministry of Steel has notified the Steel Scrap Recycling Policy which provides a framework to facilitate and promote establishment of metal scrapping centers across India. MSTC Limited, a CPSE under the Ministry of Steel, in Joint Venture (JV) with M/s Mahindra Accelo, namely, Mahindra MSTC Recycling Pvt. Ltd. (MMRPL) has set up six (6) Vehicle Scrapping Centres at Greater Noida (UP), Chennai, Pune, Indore, Ahmadabad and Hyderabad. MMRPL has planned to establish more Vehicle Scrapping Centres in the country in the near future.

Quality Control on Steel: 145 Indian Standards have been notified under the Quality Control Orders (QCOs) 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 144 Indian Standards have been enforced.

Biju Patnaik National Steel Institute (BPNSI), Kalinganagar, Jajpur Odisha: As part of the restructuring exercise for up-gradation of the institute (BPNSI), the Board of Directors of the Institute have been reconstituted recently in October, 2022 i.e. after a gap of 05 years as well as a regular Director of the Institute has been appointed on 15.02.2023. Further, the process to constitute the Academic Council under the Chairmanship of Director has been initiated.

National Institute of Secondary Steel Technology (NISST), Mandi Gobindgarh, Punjab: NISST is working on the formulation of the Steel Policy for the 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 2022-23

1.3.1 Steel Authority of India Ltd. (SAIL)

- Crude Steel production of 13.337 MT and Finished Steel production of 10.918 MT has been achieved (upto December, 2022).
- Sales turnover of Rs. 74810 crore (upto December, 2022) has been achieved as against Rs. 72,220 crore during corresponding period last year (CPLY).

- Profit Before Tax (PBT) of Rs. 1157 crore (upto December, 2022) has been registered as against PBT of Rs. 12,829 crore during CPLY.
- Profit After Tax (PAT) of Rs. 854 crore (upto December, 2022) has been achieved as against Rs. 9597 crore during CPLY.
- Net-worth of the company was Rs. 43,495 crore as on 31.03.2021, Rs. 52,017 crore as on 31.03.2022 and Rs. 52,190 crore as on 31.12.2022.

1.3.2 Rashtriya Ispat Nigam Ltd. (RINL)

- Crude Steel production of 2.909 MT and Saleable Steel production of 2.722 MT has been achieved. (upto December, 2022).
- Finished Steel component of 2.494 MT increased to 92% of Saleable Steel production from 71% (upto December, 2022).
- High End Value Added Steel component increased to 27% of Saleable Steel production (0.742 MT out of 2.722 MT) from 18% (upto December, 2022).
- Achieved Sales Turnover of Rs. 15,643 crore with Domestic Sales of Rs.14,858 crore and Export Sales of Rs.760 crore (provisional, upto December, 2022).
- Networth of the company was Rs. 3175 crore as on 31.03.2022 and Rs. 479 crore as on 31.12.2022.
- PBT of Rs. (-)3025.94 crore (provisional, upto December, 2022) has been registered.
- PAT of Rs. (-)2751.34 crore (provisional, upto December, 2022) has been registered.

1.3.3 NMDC Ltd.

- Production of iron ore 26.69 MT (upto December, 2022) has been achieved.
- Total Sale of 25.81 MT (upto December, 2022) has been achieved.
- Turnover of Rs. 11,816 crore (upto December, 2022) has been achieved.
- PBT of Rs. 4,351 crore (upto December, 2022) has been achieved.
- PAT of Rs. 3,252 crore (upto December, 2022) has been achieved.

1.3.4 MOIL Ltd.

- Production of 8.99 lakh tonne of Manganese ore (provisional, upto December, 2022) has been achieved.

- Total income of the company was Rs. 961.65 crore (provisional, upto December, 2022).
- PBT of Rs. 227.02 crore (provisional, upto December, 2022) has been achieved.
- PAT of Rs. 169.89 crore (provisional, upto December, 2022) has been achieved.
- The Net worth of the company was Rs. 2141.51 crore as on 31.03.2022 and Rs. 2246 crore as on 31.12.2022 (Provisional).

1.3.5 MECON Ltd.

- Turnover of Rs. 471.61 crore (provisional, upto December, 2022) has been achieved.
- The Networth of the Company was Rs. 367.65 crore (provisional) as on 31.12.2022.
- PBT/PAT of Rs. (-) 64.10 crore (provisional, upto December, 2022) has been registered.

1.3.6 MSTC Ltd.

- Turnover of Rs. 231.64 crore (provisional, upto December 2022) has been achieved.
- PBT of Rs. 198.77 crore (provisional, upto December, 2022) has been achieved.
- PAT of Rs. 149.64 crore (provisional, upto December, 2022) has been achieved.

1.3.7 KIOCL Ltd.

- Production of 8.340 Lakh Tonne of Iron Ore Pellets was achieved upto December, 2022.
- Sales of 7.648 Lakh Tonne of Iron Ore Pellets was achieved upto December, 2022.
- Turnover of Rs. 815.05 crore has been achieved upto December, 2022.
- PBT/PAT of Rs. (-)181.64 crore (provisional, upto December, 2022) has been registered.

CHAPTER-II

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 246 employees out of which 182 employees are in position as on December 31, 2022.

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 36 sections 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 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 complete and non-partisan databank on this industry. JPC is headquartered at Kolkata with a pan-India presence through regional and extension offices engaged in data collection.

2.2.1.2 JPC is currently headed by Additional Secretary & 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 to seminars and 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 with an online query module and a mobile app ensures access to data in real-time for all stakeholders.

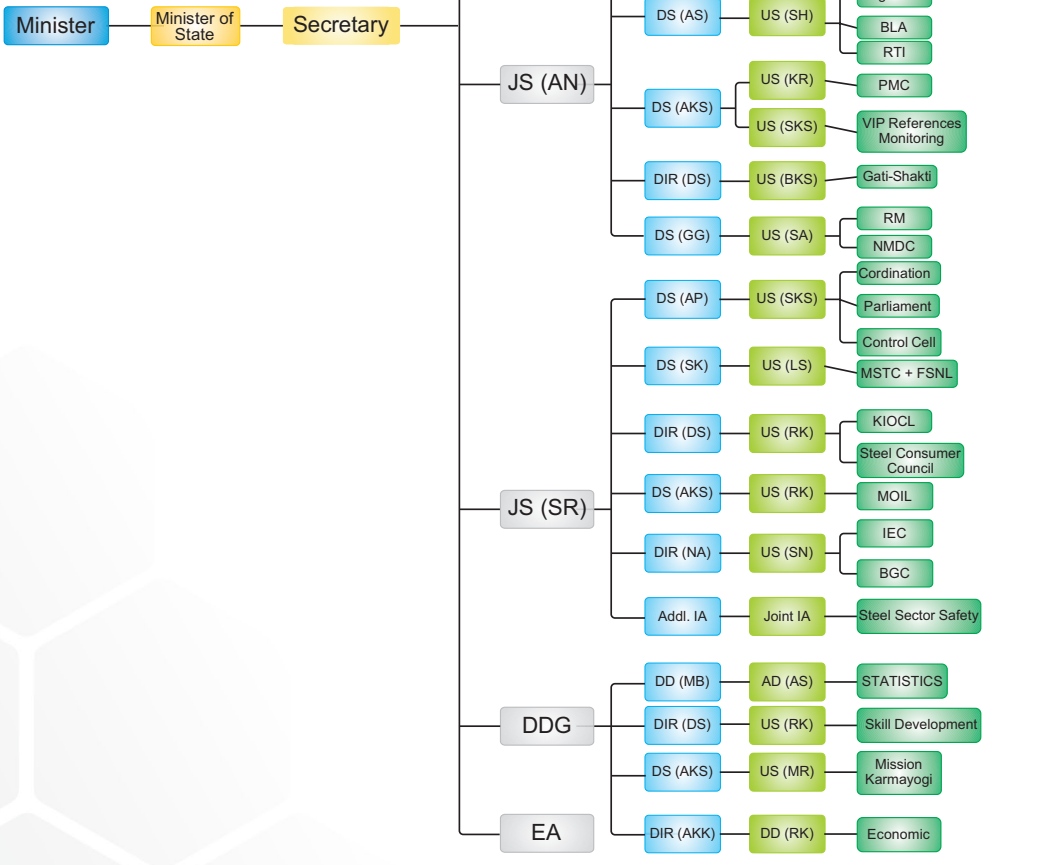
2.2.2 List of CPSEs under Ministry of Steel is as under:

S. No.	Name of the Company	Headquarters	Major Subsidiaries
1.	SAIL (Steel Authority of India Limited)	Ispat Bhawan, Lodi Road, New Delhi – 110003	SAIL Refractory Co. Ltd. Post Bag No. 565 Salem – 63 6005 (TN)
2.	RINL (Rashtriya Ispat Nigam Limited)	Administrative Building, Visakhapatnam – 530031 (Andhra Pradesh)	**(i) EIL, BSLC** Hal Plot No.428/3855 at Mouza, Goutam Nagar, Jayadev Nagar, Lewis Road, Nagewar Tangi Odisha Khordha Odisha – 751002 India **(ii) OMDC** SAIL Office, Ground Floor, Plot No. 271, Bidyut Marg, Shastri Nagar, Unit – IV, Bhubaneswar, Odisha - 751001
3.	NMDC Ltd. (National Mineral Development Corporation Limited)	Khanij Bhawan, 10-3-311/A, Castle Hills, Masab Tank, Hyderabad – 500028 (Telangana)	NMDC Steel Limited C/o, NMDC Limited, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad, Telangana-500028, INDIA.
4.	MOIL Ltd.	MOIL Bhawan, 1-A, Katol Road, Nagpur – 440013 (Maharashtra)	
5.	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)
6.	MECON Ltd.	MECON Limited, Vivekananda Path, Doranda, Ranchi – 834002 (Jharkhand)	
7.	KIOCL Ltd.	II Block, Koramangala Bengaluru – 560034 (Karnataka)	

2.3 Organization Chart of the Ministry as on January 31st, 2023

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

Directors/DSs/USs reporting to more than one Officers are shown more than once for the sake of clarity



CHAPTER-III

THE INDIAN STEEL SECTOR: PROGRESS AND POTENTIAL

3.1 Introduction

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

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

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

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

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

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

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

3.1.3 After 1996-97, with the steady decline in the domestic economy's growth rate, the Indian steel industry's pace of growth slowed down and in terms of all the performance indicators – capacity creation, production, consumption, exports and price/ profitability – the performance of the industry fell below average. In foreign trade, Indian steel was also subjected to anti-dumping/ safeguard duties as most developed economies invoked non-tariff barriers. Economic devastation caused by the Asian financial crisis, slowdown of the global economy and the impact of glut created by additional supplies from the newly steel-active countries (the steel-surplus economies of erstwhile USSR) were the factors that pulled down growth levels. However, from the year 2002, the global industry turned around, helped to a great extent by China, whose spectacular economic growth and rapidly-expanding

infrastructure led to soaring demand for steel, which its domestic supply could not meet. At the same time, recoveries in major markets took place, reflected by increase in production, recovery of prices, return of profitability, emergence of new markets, lifting of trade barriers and finally, rise in steel demand – globally. The situation was no different for the Indian steel industry, which by now had acquired a degree of maturity, with emphasis on intensive R&D activities, adoption of measures to increase domestic per capita steel consumption and other market development projects, import substitution measures, thrust on export promotion and exploring global avenues to fulfill input requirements. To develop a globally competitive steel industry by adopting environment friendly technologies, the Government has notified a Steel Scraps Recycling Policy during the Year 2019.

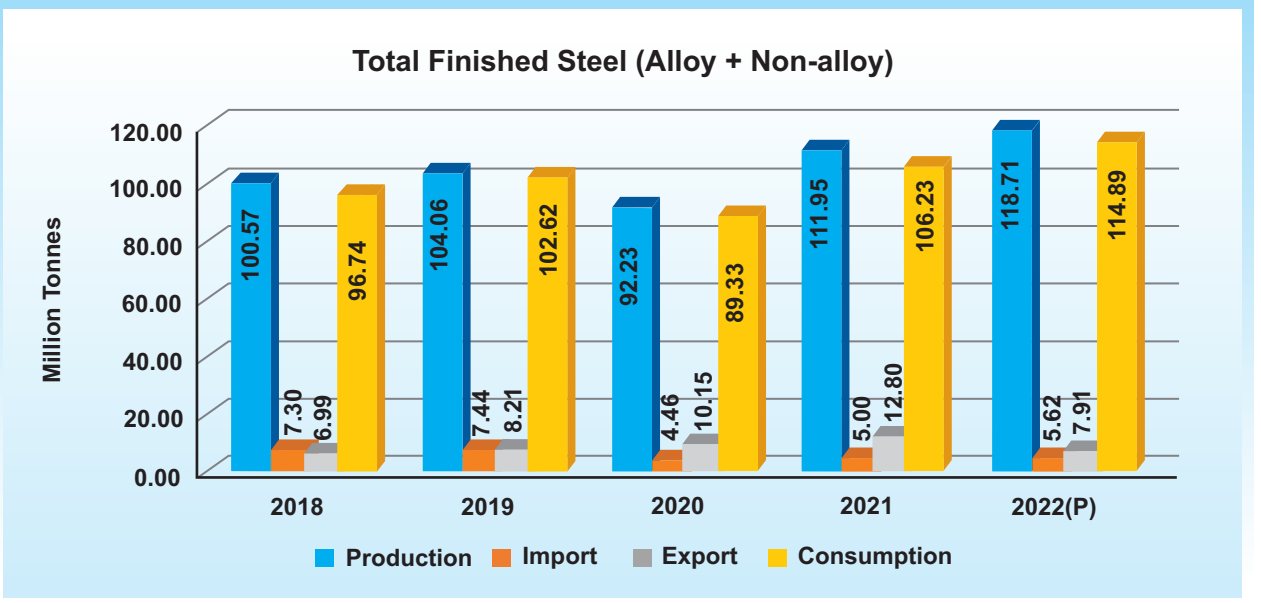
3.1.4 The rapid pace of growth of the industry and the observed market trends called for certain guidelines and framework. Thus, the concept of the National Steel Policy was evolved with aim to provide a roadmap of growth and development for the Indian steel industry. The National Steel Policy (NSP)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

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 Tonne or MT)			
	Production	Import	Export	Consumption
2018	100.574	7.295	6.692	96.737
2019	104.062	7.440	8.205	102.622
2020	92.231	4.463	10.15	89.331
2021	111.953	5.001	12.799	106.226
2022*	118.714	5.615	7.906	114.894

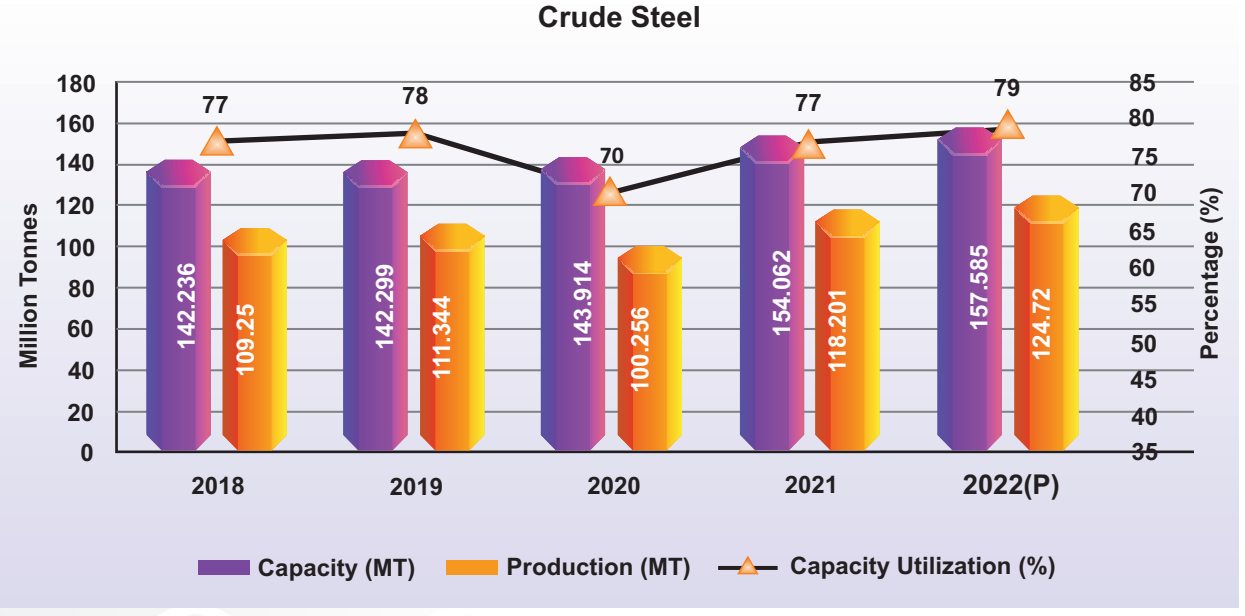
Source: JPC; *Provisional, January-December, 2022



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

	Crude Steel		
Year	**Capacity (MT)**	**Production (MT)**	**Capacity Utilization (%)**
2018	142.236	109.250	77
2019	142.299	111.344	78
2020	143.914	100.256	70
2021	154.062	118.201	77
2022*	157.585	124.720	79

Source: JPC; *Provisional, January-December, 2022

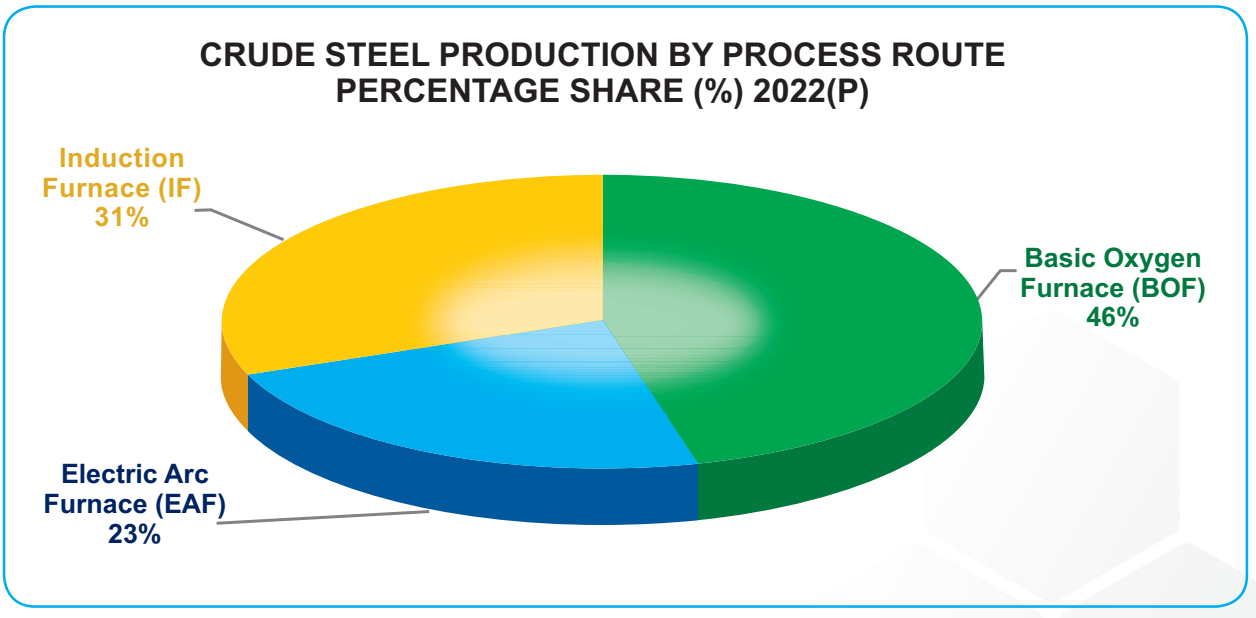


- Crude Steel production grew from 109.250 MT in 2018 to 124.720 MT in 2022.
- The growth in production was driven by capacity expansion, from 142.236 Million Tonne (MT) in 2018 to 157.585 MT in 2022, during the cited period.
- Domestic consumption of Total Finished Steel (alloy + non-alloy) was at 114.894 MT in 2022 as against 96.737 MT in 2018.
- Export of Total Finished Steel (alloy + non-alloy) during 2022 stood at 7.906 MT as compared to 6.692 MT in 2018; import of Total Finished Steel (alloy + non-alloy) during 2022 stood at 5.615 MT as compared to 7.295 MT in 2018.
- India was a net exporter of Total Finished Steel in 2022.

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 (%)**	
	2018	**2022***
Basic Oxygen Furnace (BOF)	45	46
Induction Furnace (IF)	29	31
Electric Arc Furnace (EAF)	26	23
Total	**100**	**100**

Source: JPC; *Provisional, January-December, 2022



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 2022. 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:

	Production of Sponge Iron (MT)				
Year	**2018**	**2019**	**2020**	**2021**	**2022***
Coal based	27.161	30.120	27.519	30.637	33.878
Gas based	7.052	6.699	6.074	8.402	8.123
Total	**34.213**	**36.819**	**33.593**	**39.039**	**42.001**

Source: JPC; *Provisional, January-December, 2022

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 93% of total production of Pig Iron in the country in 2022. The domestic availability situation of pig iron is given in the table below for the last five years:

Pig Iron Domestic Availability Scenario (MT)					
Year	**2018**	**2019**	**2020**	**2021**	**2022***
Production	6.249	5.983	4.548	5.855	6.283
Import	0.067	0.013	0.007	0.015	0.104
Export	0.335	0.421	0.823	1.407	0.675
Consumption	5.841	5.669	3.735	4.433	5.065

Source: JPC; *Provisional, January-December, 2022

3.3 Global ranking of Indian steel

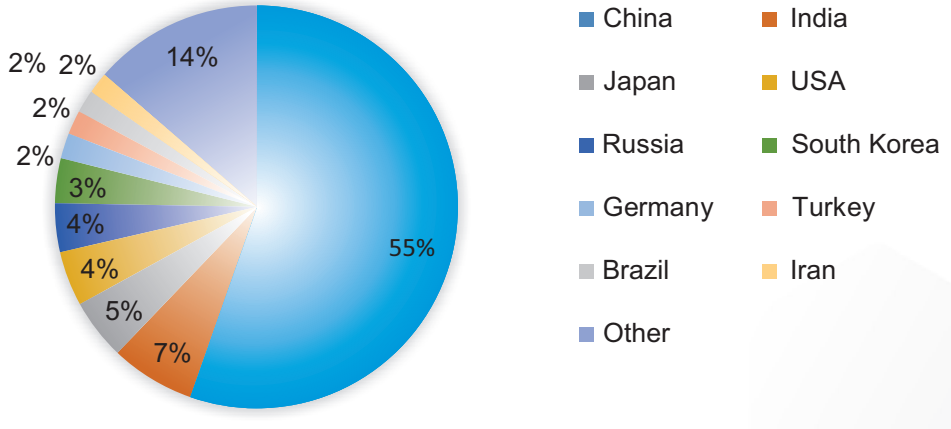
World's Crude Steel production stood at 1831.5 MT during January-December 2022, down by 4.3% over CPLY, based on provisional data released by the World Steel Association on 31st January, 2023. During this period, Chinese Crude Steel production reached 1013 MT, a decline of 2.1% over the same period of last year. China remained the largest Crude Steel producer in the world, accounting for 55% of world's Crude Steel production during this period. India was the 2nd largest Crude Steel producer and recorded a growth of 5.5% in production during this period as compared to CPLY. India had a share of around 7% in world's Crude Steel production.

The global scenario is as under:

World Crude Steel Production January-December 2022			
Rank	**Country**	**Quantity* (MT)**	**% change over the same period of last year**
1	China	1013.0	(-)2.1
2	India	124.7	**5.5**
3	Japan	89.2	(-)7.4
4	USA	80.7	(-)5.9
5	Russia	71.5	(-)7.2
6	South Korea	65.9	(-)6.5
7	Germany	36.8	(-)8.4
8	Turkey	35.1	(-)12.9
9	Brazil	34.0	(-)5.8
10	Iran	30.6	8.0
	Top 10	1581.6	(-)2.8
	World	**1831.5**	**-4.3**

Source: World Steel Association. *Provisional

Percentage Share of Countries in Crude Steel Production during Jan-Dec 2022 (%)



3.4 Steel: Facts of Indian steel sector during the year 2022:

Indian steel scene: 2022*		
Total Finished Steel (alloy+non-alloy)	**Quantity (MT)**	**% change**
Production	118.714	6.0
Import	5.615	12.3
Export	7.906	-38.2
Consumption	114.894	8.2
Crude Steel		
Production	124.72	5.5
Capacity Utilization (%)	79	-

Source: JPC; *Provisional, January-December, 2022

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.**

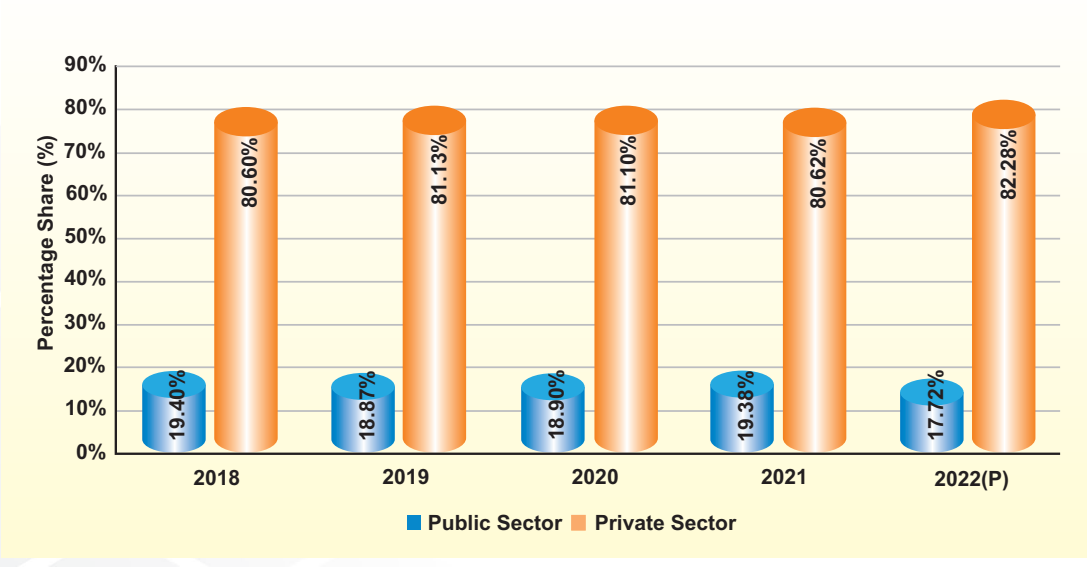
3.5 Trends in Production, Private/Public Sector

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**	**2018**	**2019**	**2020**	**2021**	**2022***
Public Sector	MT	21.191	21.014	18.948	22.908	22.102
Private Sector	MT	88.059	90.330	81.308	95.293	102.618
Total Production	**MT**	**109.250**	**111.344**	**100.256**	**118.201**	**124.720**
Share of Public Sector	%	19.4	18.9	18.9	19.4	17.7

Source: JPC; *Provisional, January-December, 2022

Indian Crude Steel Production by Public and Private Sector



3.6 Annual Plan 2022-23

The Annual Plan of the Ministry on the basis of Revised Estimates 2022-23 is to the tune of Rs. 11606.95 crore. This includes Internal and Extra Budgetary Resources (IEBR) of Rs. 11590.46 crore and Gross Budgetary Support (GBS) of Rs. 16.49 crore, as detailed in the table below:

Outlay for Annual Plan 2022-23

(Rs. in Crore)

Sl. No.	Name of the CPSE/ Organisation	IEBR	GBS	Total
A. Schemes of CPSEs				
1.	Steel Authority of India Ltd.	6803.00	0.00	6803.00
2.	Rashtriya Ispat Nigam Ltd.	603.00	0.00	603.00
3.	NMDC Ltd	2012.00	0.00	2012.00
4.	NMDC Steel Ltd.	1500.00	0.00	1500.00
5.	KIOCL Ltd.	384.63	0.00	384.63
6.	MOIL Ltd.	242.58	0.00	242.58
7.	MECON Ltd.	17.25	0.00	17.25
8.	MSTC Ltd.	10.00	0.00	10.00
9.	Ferro Scrap Nigam Ltd.	18.00	0.00	18.00
	Total-A	**11590.46**	**0.00**	**11590.46**
B. Scheme of Ministry of Steel				
10.	Schemes for promotion of R&D in Iron & Steel Sector	0.00	4.49	4.49
11.	Flagging of Merchant Ships in India	0.00	12.00	12.00
	Total-B	**0.00**	**16.49**	**16.49**
	Grand Total: A+B	**11590.46**	**16.49**	**11606.95**

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 2022-23 (upto 31.12.2022) Ministry of Steel has released a total amount of Rs. 69.41225 lakh to one institution viz. ICAR-IARI (Indian Agricultural Research Institute). 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 2022-23 under the aforesaid scheme are at **Annexure-XV.**

CHAPTER-IV

STEEL POLICIES AND RECENT INITIATIVES

4.1 National Steel Policy (NSP) 2017

NSP 2017 aims to increase focus on expansion of MSME sector, improve raw material security, enhance R&D activities, reduce import dependency and cost of production, and thus develop a "technologically advanced and globally competitive steel industry that promotes economic growth" eyeing self-sufficiency in production, developing globally economical steel manufacturing capabilities by facilitating investments and cost-efficient productions with adequate availability of raw materials.

With focus on R&D, the technology would be of utmost focus over the next decade and MSME steel plants would be the key drivers to achieve the additional capacity required for 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 JVs 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 8th May, 2017 to provide preference to domestically produced iron and steel material in Government tenders. Further, to fine tune this objective, the Policy was revised on 29th May, 2019 and on 31st December, 2020. The salient features of the Policy are as under:

- This policy provides preference to Domestically Manufactured Iron and Steel Products (DMI&SP) in Government procurement.
- The policy covers a list of 49 manufactured products of iron and steel. The policy also covers capitals 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 come within the purview of this Policy, if that project / scheme is fully / partly funded by Government of India.
- The policy is applicable to projects where the procurement value of iron and steel products is greater than Rs.5 lakh. The policy is also applicable for other procurements (non-project), where annual procurement value of iron and steel products for that

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

- The policy is applicable to purchase of iron and steel products by private agencies for fulfilling an EPC contract and/or any other requirement of Ministry or Department of Government or their CPSEs and also to capital goods for manufacturing iron and steel products in compliance to prescribed quality standards, as applicable.

- No Global Tender Enquiry (GTE) shall be invited for tenders related to procurement of iron and steel products. No Global Tender Enquiry (GTE) shall be invited for tenders related to procurement of Capital Goods for manufacturing iron and steel products having estimated value upto Rs. 200 Crore except with the approval of competent authority as designated by Department of Expenditure.

- The policy has provisions for waivers to all such procurements, where specific grades of steel are not manufactured in the country, or the quantities as per the demand of the project cannot be met through domestic sources.

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

Impact of the DMI & SP Policy

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

This policy has provided and expected to provide significant savings to the Indian Economy and restrict the use of low quality and cheap imported steel in Government funded projects, alongside developing domestic capability for import substitution. DMI&SP Policy has so far resulted in import substitution of Rs. 26,600 Crore approximately.

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

Steel Import Monitoring System (SIMS) has been institutionalized which is an online platform for advance registration of intended imports of steel in order to provide granular data on steel imports, 0-60 days in advance to help the Ministry and the industry identify the exact grade being imported into the country in order to plan domestic manufacturing, besides giving advance warning about any surge in imports. SIMS platform was launched on 16th September 2019 for import consignments started at the Port of Entry w.e.f. 1st November 2019. SIMS registration is fully online and automated without any human intervention and registration number can be obtained by the steel importer after making an online payment of token registration fee prescribed for this purpose. 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 Quality Control Orders/BIS

Government has been facilitating supply of quality steel for critical end-use applications such as infrastructure, construction, housing and engineering sector. Ministry of Steel is the leading Ministry with maximum coverage of products under the BIS certifications marks scheme. A total of 145 Indian Standards on Steel and Steel products have been covered under Mandatory Quality Control Orders. These orders prohibit, import, sale and distribution of substandard steel products. The imposition of QCO is in the public interest or for the protection of human, animal or plant health, safety of the environment, or prevention of unfair trade practices, or national security as stated in the BIS Act, 2016. Through the aforementioned orders, Ministry of Steel has so far covered 99 Carbon Steel, 44 Stainless Steel and Alloy Steel products standards and 2 Ferro Alloys under the mandatory BIS Certification Scheme.

Further, to meet the requirement of containers manufacturing, Indian Standard 11587 which was already under the purview of quality control order was revised by BIS by including the Corten Steel and the domestic steel manufacturers were urged to apply for BIS certification for the product. Four domestic manufacturers have already been certified by BIS and domestic manufacturers are ready to supply the desired quality of corten steel required by container manufacturers to reduce the dependency of import of corten steel and make container manufacturing industry Aatmanirbhar.

In addition, as per the data of imported steel grades shared with BIS, more than 250 new steel grades have been included in the existing standards and 5 new standards are under preparation. This exercise is facilitating the upgradation of the Indian Steel Standards at par with Global Standards. This exercise is also facilitating indigenization of many of the imported steel grades for import substitution and “Make in India” initiative.

QCO notified by Ministry of Steel and also the experience gained from the discussions held with the stakeholders have resulted in several benefits which are highlighted below:

- Strengthening of the Indian Standards and also formulation of new standards by BIS based on the information provided by Ministry of Steel.
- Promote indigenisation of the imported steel grades by bringing in the importers and the domestic steel producers together.
- Preventing unfair trade practices such as misdeclaration and under-invoicing of the imported steel consignments. Based on the information shared by Ministry of Steel, the relevant authorities have imposed measures such as ADD, penalties for misdeclaration, etc.

4.5 Key Initiatives

4.5.1 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 five broad categories of Specialty steel, identified under the scheme, are used in a variety of applications including white goods, automobile body and components, pipes for transportation of oil and gas, boilers, ballistic and armour sheets, high-speed railway lines, turbine components, distribution and power transformers. The Scheme has been notified on

29.07.2021 and detailed Scheme Guidelines were published on 20.10.2021. The application process through online system was available from 29.12.2021 till 15.09.2022.

The scheme is set to commence from FY:2023-24 (PLI to be released in FY:2024-25). 57 MoUs have been finalized out of 67 applications from 30 companies which were selected under the Production Linked Incentive (PLI) Scheme for Specialty Steel. This will attract committed investment of Rs. 29530 crore with a downstream capacity addition of 25 million tonne and employment generation potential of 70000.

4.5.2 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 6th May, 2022" and "Roadmap for Circular Economy in Steel Sector" on 1st July, 2022". Further, Ministry of Steel hosted a session on the 6th Day of COP 27 event in Sharm-El-Sheikh, Egypt on 11th 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.

4.5.3 PM GatiShakti National Master Plan: With the help of Bhaskaracharya Institute for Space Applications and Geoinformatics (BiSAG-N) the infrastructure Ministries have uploaded their rail, road, port networks, etc. on PM GatiShatkti 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.

4.5.4 Engagement with Secondary Steel Sector: A major segment of iron and steel industry is the segment of secondary producers which contributes more than 40% to the production of crude steel. The role of secondary steel sector in infrastructure development is immense. Not only does infrastructure development provide a stimulus to steel demand but steel intensive construction also leads to rapid building up of infrastructure. Considering the importance of this sector, which mostly consists of MSMEs, Ministry of Steel has organised a seminar under the chairmanship of Hon'ble Steel Minister with the aim of providing a platform to players in the Secondary Steel sector to share their views on the challenges faced by the sector and

ways in which the Ministry can create an ecosystem in which the industry can thrive. The issues raised during the discussion were taken up with concerned Ministries such as Ministry of Finance, Ministry of Port, Shipping and Waterways, Ministry of Coal, Ministry of MSMEs and Ministry of PNG. Ministry of Steel also organized seminars at Bhuvneshwar, Indore, Roorkee and Surat to interact with secondary steel producers and consumers to enhance steel demand in the country.

4.5.5 Steel Prices: Certain measures were taken by the Government to provide relief from high prices of crucial raw materials and intermediates, which included iron and steel. Accordingly, modifications were made in tariffs on raw materials of steel and other steel products vide notification dated 21.05.2022 whereby Import duty on Anthracite/Pulverized Coal Injection (PCI) coal, Coke and Semi-coke and Ferro-Nickel were reduced to zero. Export duty on Iron ores/ concentrates and iron ore pellets was raised to 50% and 45% respectively. In addition, 15% export duty was imposed on pig iron and several steel products.

The prices of steel items declined ~15-25% across the board and stabilized consequent to the above measures. Taking in view the concerns of all stakeholders concerned, the said notification has been rescinded vide notification dated 18.11.2022 and status prior to 21.05.2022 has been restored.

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 across iron ore and coal. Ministry of Steel has taken up related issues with Ministry of Mines, Ministry of Coal and the concerned State Governments.

Iron ore

- Domestic Production of Iron ore increased from 199.88 million tonne in 2017-18 to 253.97 million tonne in 2021-22.
- 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.
- From ~200 MT in 2017-18 to 254 MT in 2021-22, iron ore production has increased at a CAGR of 4.75%, as compared to CAGR of crude steel production of 3.1% during the same period.
- Ministry of Steel has requested to Ministry of Mines to frame a policy for providing incentives to the beneficiation and agglomeration industries and to give direction to compulsory utilize low-grade fines for beneficiation and pelletisation to move towards zero waste mining in the country. Ministry of Mines has constituted a Committee in the Indian Bureau of Mines to examine the issue regarding “Utilization of low and lean grade iron ore resources in the country”.

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. Accordingly, the Indian steel Industry has been largely dependent on imported coking coal.

- As per Coking Coal Mission of Ministry of Coal, raw coking coal production is expected to go up to 120 million and about 40 million tonne of washed coking coal. The Mission has recommended increasing coking coal production by identification of additional coking coal blocks for production by Coal India Ltd (CIL), SAIL, and private sector, auction of coal bed methane (CBM) overlap coking coal blocks, and allocation of coking coal linkages by CIL to private washeries.

- Taking into account that Coking coal is a major cost factor in steel production to the tune of 42%, Ministry of Steel is making efforts to reduce the import bill on coking coal by diversifying the import destinations. 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 coking coal which may lead to reduction in input cost for the steel players due to long term commitment of supply of high-quality coking coal to India (up to 40MT till 2035). This MoU also envisages implementation of joint projects/commercial activities in coking coal sector, including development of coking coal deposits and logistics development, sharing of experience in coking coal production management, technologies of mining, beneficiation, processing as well as training. In addition, the MoU envisages promoting research collaboration between the two countries.

Manganese Ore

- The domestic demand of manganese ore in the country by 2030-31 will be about 11 MT based on NSP, 2017 whereas likely domestic production of manganese ore will be about 6 MT.

- The domestic consumption of Manganese ore is more than that of production. Besides this India is deficient in high grade, low phosphorous manganese ore. This necessitates import of high-grade ore to blend with domestic quality of manganese ore for production of required manganese alloys.

- MOIL has undertaken various projects for deepening of its existing shafts, sinking of new shafts in existing mines and taken up development of newly required lease areas in Maharashtra and Madhya Pradesh with a view to augment the production from 1.14 MT to 3.00 MT by 2030.

Ferrous Scrap

- Ferrous scrap is used in EAF/IF process to produce steel. Stainless steel is produced exclusively from stainless steel scrap. Scrap consumption in the total charge mix are BOF-15%, EAF-2% and IF-20%.

- In 2021-22, India generated about 25-30 MT and imported about 4-5 MT of ferrous scrap. Import of ferrous scrap has been declining since the past 3 years. Implementation of End of Life Vehicle (ELV) policy is also expected to boost the availability of scrap domestically.

- An increased use of scrap is an important way of reduction in carbon intensity in the steel sector. Hence, it is expected that both domestic and international demand for ferrous scrap will increase in the coming years. Augmentation and modernisation of scrap collection facilities is a critical measure to improve domestic availability of scrap domestically.

4.6.2 Digitization of Mines: Employing digitization is an important element for optimizing the iron ore mining throughput 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: The Steel Scrap Recycling Policy (SSRP) was notified in the Gazette of India on 07.11.2019. 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 including end of life vehicles (ELVs). SSRP works out a model for collection, dismantling and shredding activities in an organized, safe and environmentally sound manner in order to curb pollution and prevent health hazards. The responsibilities of dismantling centre and scrap processing centre, roles of aggregators and responsibilities of the Government, manufacturer and owner are enumerated. SSRP is an enabling Policy with the Ministry of Steel playing the role of a facilitator to establish scrapping eco-system for the entrepreneurs and investors to establish scrap centres in the country. The shredded scrap produced by recycling would be used as raw material for steel making. This will help reduce import dependency of scrap and boost imports substitution. The Policy will help transform the present process of metal recycling from unorganized to organized sector. The ferrous scrap generated through recycling used for production of steel will help in judicious use of valuable natural resources like iron ore, coal and limestone, leading to Resource Efficiencies (RE) and energy savings and reduce GHG emission.

MSTC Limited, a CPSE under the Ministry of Steel, in Joint Venture (JV) with M/s Mahindra Accelo, namely, Mahindra MSTC Recycling Pvt. Ltd. (MMRPL) has set up six (6) Vehicle Scrapping Centres at Greater Noida (UP), Chennai, Pune, Indore, Ahmadabad and Hyderabad. MMRPL has planned to establish more Vehicle Scrapping Centres in the country in the near future.

4.6.4 CAPEX: The Government is according high priority to capital expenditure (CAPEX) to mitigate the adverse effects of the COVID-19 induced contraction in economic activities and to revitalize the economy. Capital expenditure (CAPEX) is incurred by CPSEs either from their own resources or through Government budgetary support (GBS). The CAPEX of CPSEs under the Ministry of Steel is being financed entirely through their own resources i.e.,

Internal and Extra Budgetary Resources (IEBR). The Steel CPSEs achieved a CAPEX of Rs. 10147.33 crore in FY 2021-22. During the current fiscal (FY 2022-23), the CAPEX target for the CPSEs under the Ministry of Steel is Rs. 13,156.46 crore (BE) and Target for 2023-24 is Rs. 10300.85 crore.

In view of the importance of CAPEX in strengthening infrastructure and enhancing production capacity in the post pandemic period and the significantly higher targets set for CAPEX for the current year as compared to the previous year, the Ministry is regularly monitoring CAPEX with the CPSEs.

Besides encouraging and directing the steel CPSEs to speed up CAPEX, Ministry is also addressing the inter-ministerial issues for faster implementation of CAPEX projects by the CPSEs.

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 at least 60-80% (SAIL 60%, RINL: 80% and NMDC: 70%) of the employees every year for imparting training on safety by FY 2022-23 and 100% by FY 2023-24 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 Steel CPSEs has increased significantly over the year with the value of orders upto 31st January, 2023 at Rs. 10367.80 crore as against the target of Rs. 6710.95 for the FY 2022-23 which is 54.49% 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-December of the current fiscal have been made within 30 days. During April-December 2022, Steel CPSEs have made a payment of Rs. 5434.60 crore to MSMEs which is 61.81% higher than payment of Rs. 3358.61 crore made during CPLY.

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 Shimla on 6th May, 2022 on **"Transition towards Green Steel".** Discussions were held on the present scenario and the way forward for promoting the transition towards Green Steel. Various strategies and technologies that can be adopted by the steel industry to produce green steel,

their pros and cons and their Technology Readiness Levels (TRLs) and when these are likely to be available commercially were discussed. Prospects of use of Green Hydrogen for use in producing iron and also the use of Carbon Capture, Usage and Storage (CCUS) technologies for lowering the emissions in line with the commitments made in COP26 was also discussed. Government interventions required to address the issues and constrains and the way forward for producing Green Steel were discussed.

4.6.8.2 A Meeting of the Consultative Committee for the Ministry of Steel was held in Tirupati, Andhra Pradesh on 1st July, 2022 on **"Roadmap for Circular Economy in Steel Sector"**. During the meeting the immense possibilities of utilization of waste generated during mining, steel manufacturing process and end of life products were discussed. The Government's focus on Circular Economy which encompasses adoption of principle of 6Rs i.e. Reduce, Reuse, Recycle, Recover, Redesign and Remanufacture with the objective to increase material resource efficiency and reduce impact on environment was emphasized. Utilization of wastes, scrap and by-products generated during mining and steel making and their effective use for making steel and in other applications like cement manufacture, road construction, agriculture etc were discussed.

4.6.8.3 A Meeting of the Consultative Committee for the Ministry of Steel was held in New Delhi on 8th December, 2022 under the chairmanship of Hon'ble Union Minister of Steel, Shri Jyotiraditya M. Scindia on **"Raw material in Steel Sector".** It was noted that India was self sufficient in so far as domestic iron ore requirements are concerned. However, in the matter of coking coal due to non-availability of quality coking coal domestically, around 80 % of the present requirement of coking coal is being met through imports. Members were apprised that efforts are on to diversify sources of coking coal and in that direction Ministry of Coal has already planned to ramp up coking coal production under the Mission Coking Coal to reduce the burden of import bill on coking coal. The measures taken by the Government such as amendments to the MMDR Act, 1957, so as to ensure raw material security, were also mentioned. Other initiatives taken up by the Government such as the Steel Scrap Recycling Policy, National Green Hydrogen Mission for green hydrogen production and usage to reduce carbon footprints of the domestic Steel industry and move towards greener ways of steel making were also discussed.

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

4.6.9 Commemoration of Azadi ka Amrit Mahotsav (AKAM): Ministry of Steel celebrated Azadi ka Amrit Mahotsav during the week allocated to the Ministry viz. 4-10th July, 2022. Each day theme-based activities were organised by both the private and public sector steel companies such as moving exhibition with tableaus, banner and poster showcasing steel usage, seminars/workshops on increasing Steel consumption, Swachh Bharat activities in cities, townships, offices and plant premises, painting/essay writing competition for children on Green Steel/Environment and Sustainability, Safety and Health. The 'Har Ghar Tiranga' campaign launched by Government under aegis of AKAM was also widely participated by employees of steel Ministry and its organisations by hoisting National flag in their homes, virtually flagging and posting selfie with flag on social media.

4.6.10 A Brainstorming Session was organized by the Ministry of Steel in New Delhi on 21st October, 2022 under the guidance of Shri Jyotiraditya M. Scindia, Hon'ble Union Minister of Steel, and the Minister of State for Steel and Rural Development, Shri Faggan Singh Kulaste. The Brainstorming Session was attended by officers from the Ministry of Steel, CMDs, and Functional Directors of CPSEs, under the administrative control of the Ministry of Steel. The importance of team building to achieve the desired objective of the organization was emphasized.

Hon'ble Union Minister of Steel Shri Jyotiraditya M. Scindia during the Brainstorming Session

An interactive workshop was held on team building through short skits with the active participation of the participants. The key tenets of leadership and teamwork for civil servants were shared. Participants from the Ministry of Steel and officers from steel CPSEs actively participated and shared their views and suggestions.

4.6.11 Ministry of Steel hosted a **"Conference of Ministers of Industry/Mines/Steel of State Governments"** in New Delhi, on 15th November, 2022, chaired by Shri Jyotiraditya M. Scindia, Hon'ble Union Minister of Steel to provide the State and Central Governments an opportunity to deliberate on matters related to issues in mining of raw material, growth, and future challenges of steel sector. The achievements made by India's steel sector and other issues such as increasing rural consumption of steel, utilising all grades of iron ore in steel-making, timely auctions of mines, formalisation of recycling industry and bringing to scrappage the End-of-Life Vehicles were the highlights of the conference.

Hon'ble Union Minister of Steel Shri Jyotiraditya M. Scindia during the Conference of Ministers of Industry/ Mines/Steel of State Governments

4.6.12 Ministry of Steel hosted a **"Chintan Shivir"** in New Delhi, on 17th February, 2023, in presence of Hon'ble Union Minister of Steel, Shri Jyotiraditya M. Scindia. Deliberations were held on issues viz. raw material issues of the Steel Sector and circular economy in Steel Sector. The need for Reverse logistics encompassing the need to identify pathways of generation and recovery of scrap, both in the organised and unorganised sectors and formulate policies and structures to enhance the intensity of circularity in the country was impressed upon. The importance of team spirit, motivation, consistency, and constant learning to enhance the capacity and capability to improve the quality of output were highlighted.

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

CHAPTER-V

PUBLIC SECTOR

5.1 Introduction

There are 07 (Seven) 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 steels 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, Colliery Division located at Dhanbad, Environment Management Division (EMD) and Logistics and Infrastructure Department (L&I) located at Kolkata, SAIL Growth Works at Kulti and SAIL Refractory Unit with headquarters at Bokaro. Chandrapur Ferro Alloy Plant, (CFP) is located at Chandrapur, Maharashtra. The Central Marketing Organisation (CMO), with its headquarters at Kolkata, coordinates the countrywide marketing and distribution network of the Company.

HR coils for dispatch at Rourkela Steel Plant

5.2.1 Capital Structure

The Authorized Capital of SAIL is Rs. 5,000 crore. The paid up capital of the Company is Rs. 4,130.53 crore as on 31.12.2022, out of which 65% is held by the Government of India and the balance 35% by the Financial Institutions, GDR holders, Banks, Employees, retail investors, etc.

5.2.2 Financial Performance

The company recorded turnover of Rs. 74810 crore during April-December, 2022 and Rs. 1,02,805 crore during FY 21-22. The Profit After Tax was Rs. 854 crore during April-December, 2022 and Rs. 12,015 crore during FY 21-22.

5.2.3 Production Performance

(in Million Tonne)

SAIL	2020-21	2021-22	2022-23*
Hot Metal	16.58	18.73	14.16
Crude Steel	15.21	17.36	13.33
Saleable Steel	14.60	16.89	12.54

*Upto December, 2022

5.2.4 Raw Material

During April-December' 2022, SAIL met the full requirement of iron ore for its Steel Plants by producing 24.78 MT of iron ore from its captive mines. The production of fluxes (Limestone and Dolomite) from captive mines during April-December' 2022 was 1.27 MT. During the same period, raw coking coal productions from captive collieries of SAIL was 0.27 MT and raw non-coking coal including middlings production from captive collieries of SAIL was 0.39 MT.

5.2.5 Washery's Performance

During April-December 2022, SAIL's washery at Chasnalla processed a total of 0.91 MT of raw coking coal, which was produced at SAIL coal mines and procured from CIL sources. Out of the processed raw coal, 0.46 MT of clean coal was produced.

5.2.6 Sale of Iron Ore Fines/Dump Fines/Tailings

During April-December 2022, sales of iron ore fines/dump fines/tailings from SAIL mines was 0.38 MT.

5.2.7 Manpower

The Manpower Strength of SAIL as on 01.01.2023 was 60,039 (Executive 10,050 and Non-Executive 49,989).

5.2.8 Capacity Expansion and Modernization Projects

Steel Authority of India Ltd. had undertaken Modernisation and Expansion Plan (MEP) of

its Integrated Steel Plants at Bhilai, Bokaro, Rourkela, Durgapur, Burnpur and Special Steel Plant at Salem. Enhancement of Crude Steel production capacity from 12.8 million tonne per annum to 21.4 Million Tonne per annum was envisaged under the plan. However, the current operating crude steel capacity of SAIL is 19.51 MTPA.

The MEP at Bhilai, Rourkela, Burnpur, Durgapur, Bokaro and Salem Steel Plants have been completed and facilities are under operation, stabilization and ramp up. 4thCaster in SMS-III of Bhilai Steel Plant envisaged as a Beam Blank Caster under MEP is under conversion to Bloom-cum-Beam Blank Caster.

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 2022-23, are as follows:

New Projects:

- Power Supply Arrangement for Proposed 2000 TPD BOO Oxygen Plant at Bokaro Steel Plant.
- Installation of Treatment System-I for Implementation of ZLD at RSP
- Installation of 2000 TPD Oxygen Plant on BOO basis, BSL
- Installation of 4th Slab Caster along with its auxiliaries and a new Ladle Furnace in SMS-II, RSP
- Installation of NDT facilities at Wheel and Axle plant, DSP

5.3 Rashtriya Ispat Nigam Ltd. (RINL)

Rashtriya Ispat Nigam Limited, 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.

RINL has one integrated steel plant of 7.3 MTPA Liquid Steel capacity at Visakhapatnam, Andhra Pradesh. In addition, the company operates three mines viz. Jaggyyapeta mines (Limestone), Garbham (Manganese) mines, in Andhra Pradesh and Madhram mines (Dolomite) in Telangana State. RINL also has mines for quartzite and river sand at Kintadain Andhra Pradesh.

RINL has one subsidiary, Eastern Investment Limited (EIL) with 51% shareholding, which 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 headquarter of these companies are at Bhubaneswar (Odisha).

RINL is marketing its products through a wide marketing network of 5 Regional offices, 23 Branch Sales Offices and 23 Stock yards which cater to the delivery requirements across the country.

RINL set up Forged Wheel Plant (FWP) at Lalgunj, UP, to cater to the requirement of Indian Railways for import substitution. Commercial operation has already commenced from the Unit.

LHB wheels storage at the dispatch area at RINL FWP

5.3.1 Capital Structure

RINL-VSP is a wholly owned Government company under the administrative control of Ministry of Steel. The authorized share capital of the company is Rs. 8000 crore and issued/ subscribed/fully paid up shares is Rs.4889.85 crore as on 31.12.2022.

5.3.2 Financial Performance

RINL registered a turnover of Rs. 15,618 crore (prov.) during the period April, 2022 to December, 2022 and the company made a Net Loss of Rs.2,751.34 crore (provisional) upto December 2022.

5.3.3 Production Performance

(Unit: '000 t)

Production	2020-21	2021-22	2022-23*
Hot Metal	4682	5774	3106
Crude Steel	4302	5272	2909
Saleable Steel	4163	5138	2722

*Provisional upto December, 2022

5.3.4 Raw materials

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

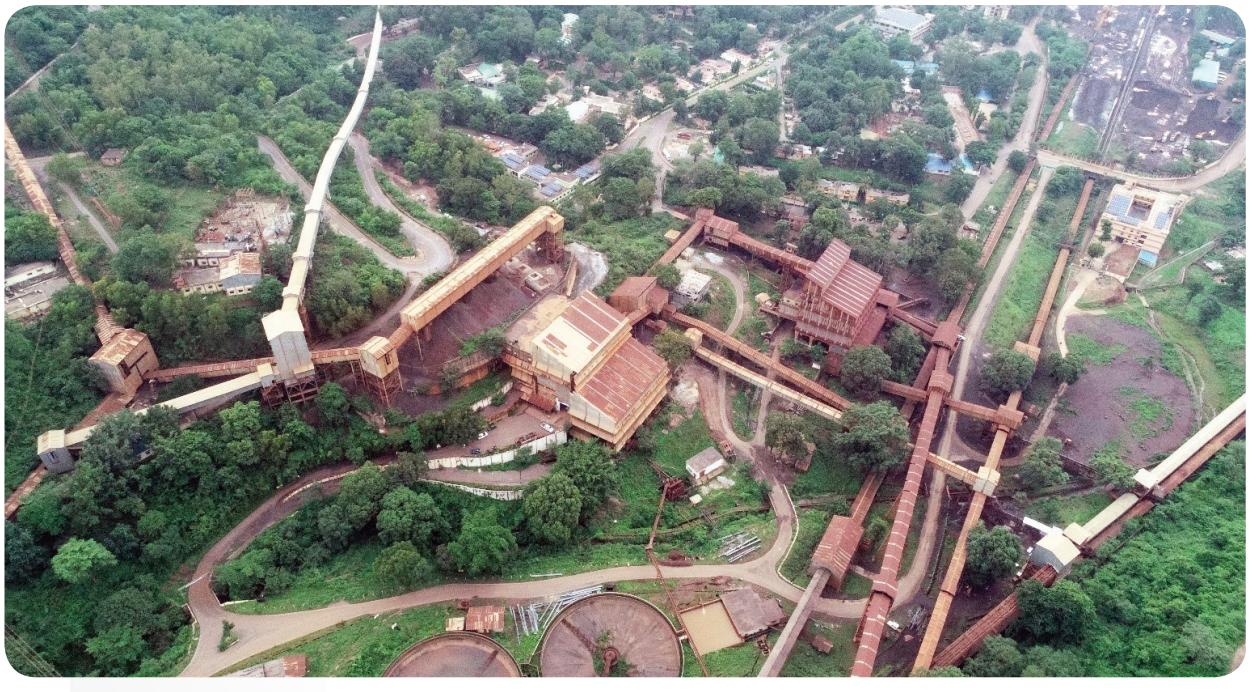
5.3.5 Manpower

The Manpower strength of RINL as on 31.12.2022 was 14935 Employees (Executives-4,889 and Non-Executives-10,046).

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 complex in Chhattisgarh

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 31.12.2022, 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. 11,816 crore in the financial year 2022-23 (upto December, 2022). The post-tax net profit for the year was Rs. 3,252 crore (actual upto December, 2022).

5.4.3 Production Performance

The details of the actual production are given below:

Items	2020-21	2021-22	2022-23*
Iron ore (in MT)	34.15	42.19	26.69

* upto December, 2022

5.4.4 Manpower

The manpower strength of NMDC as on 31.12.2022 was 5667.

5.4.5 Major Expansions / Initiatives:

- NMDC is setting up 3.0 MTPA Integrated Steel Plant at Nagarnar, near Jagdalpur, Dist. Bastar, Chhattisgarh. The plant is in advanced stage of completion. Stage wise commissioning has started with coke pushing on 28.10.2022.
- 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 130 Km Slurry Pipeline from Bacheli to Nagarnar and its Auxiliary systems in the state of Chhattisgarh. Major packages like Slurry pipeline laying package, Slurry Pump house package, Technological package of Pellet Plant at Nagarnar and Main Substation Packages are awarded and works are in progress at site. NMDC is in the process of finalizing the agency for Ore Processing Plant at Bacheli.
- 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.
- NMDC is also in the process of augmenting its production and evacuation capacity by installing the following additional facilities:
    - **Construction of 5th Screening line** in existing Screening Plant and Up-gradation of downhill conveyor system at deposit-5, Bacheli Complex, Bailadila, Chhattisgarh is in progress.
    - **Installation of 7.0 MTPA Screening and Beneficiation Plant-II at Donimalai Complex, Karnataka:** NMDC is in the process of obtaining statutory clearances for the project. Parallelly tender documents are also under finalisation.
    - **Doubling of Kirandul :** Kottavalasa railway line, Kirandul to Jagdalpur (150 km approx.) is being executed by East Coast Railways on deposit basis funded by NMDC. Total 106 km doubling from Jagdalpur to Dantewada is commissioned and

opened to traffic, Kirandul to Bacheli 9.5 km is likely to be completed by March 2023. Balance 34.5 km doubling from Bacheli to Dantewada is planned to be completed progressively by March 2024.

- **Solar Projects of NMDC :** NMDC is planning to set up a 4.5 MW ground mounted grid connected Solar Power Plant at SIU, Paloncha. NMDC already obtained the power evacuation arrangement feasibility certificate/ approval for grid connectivity from Telangana State Authorities. Action is in hand to complete the installation by August, 2024.

5.5 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 48% in domestic production. At present, MOIL operates eleven mines, seven located in the Nagpur and Bhandara districts of Maharashtra and four in the Balaghat district of Madhya Pradesh. Except one all mines of MOIL are about a century old. Seven mines are worked through underground method and rest 4 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.

Government of Maharashtra has granted four prospecting licences comprising of 212.931 Ha. where exploration in two areas by core drilling has been completed. Total lease area includes new mining lease area of 126.84 Ha. grated by Government of Maharashtra in village Kodegaon of Nagpur district for mining of manganese ore, which is adjacent to MOIL's Gumgaon mine.

Balaghat Mine, Madhya Pradesh

In addition, 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, for which exploration by core drilling is under process.

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

5.5.1 Capital Structure

The authorized and paid-up share capital of the Company is Rs. 300.00 crore and Rs. 203.48 crore respectively, as on 31st December, 2022. MOIL got listed on 15th December, 2010 on National Stock Exchange and Bombay Stock Exchange. Current shareholding of Government of India, Government of Madhya Pradesh and Government of Maharashtra is 53.34%, 5.37% and 5.96% respectively and rest 35.33% is held by the public.

5.5.2 Financial Performance

(Rs. in crore)

Parameter	2020-21	2021-22	2022-23*
Total Income	1279.85	1515.57	961.65
Profit Before Tax	240.11	523.29	227.02
Profit After Tax	176.63	376.98	169.89

*Provisional upto December, 2022

5.5.3 Production Performance

Parameters	2020-21	2021-22	2022-23*
Manganese Ore (Lakh Metric Tonne)	11.43	12.31	8.99
E.M.D. (Metric Tonne)	1070	1202	808
Ferro Manganese (Metric Tonne)	8851	10245	7363

*Provisional upto December, 2022

5.5.4 Manpower

The manpower strength of MOIL as on 31.12.2022 is 5666.

5.6 MECON Ltd.

MECON Limited, a Miniratna CPSE and a wholly owned Government company 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.

5.6.1 Financial Performance

(Rs. in crore)

Parameter	2020-21	2021-22	2022-23*
Turnover	718.00	586.67	471.61
Operating Profit	(-) 25.34	(-) 18.92	(-) 124.84
PBT	19.11	19.54	(-) 64.10
PAT	6.24	13.70	(-) 64.10

*Provisional upto December, 2022

5.6.2 Manpower

The manpower strength of MECON as on 31.12.2022 was 1083.

5.7 MSTC Ltd.

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. Imports of such items were decanalised with effect from August 1991. Subsequently, the company diversified into mainly providing e-auction /e-procurement services. Under this segment, the Company undertakes disposal of ferrous and non-ferrous scrap arisings, surplus stores, condemned plants, minerals, Agri and forest produce etc. for Government Departments, Public Sector Undertakings and private companies. The Trading Division is engaged in import as well as domestic sourcing of bulk industrial raw material for actual users as well as traders. This division looks after sourcing, purchase and sale of industrial raw materials like low ash metallurgical coke, HR coil, naphtha, crude oil, coking coal, steam coal, line pipes etc. on behalf of customers across steel, oil and gas, power sectors in private and public sector. Major activities of the Company include:

E-commerce: Under this segment of business, 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 has evolved as the only CPSE under this segment of business with full-fledged in-house operations and grown to become the largest Government Company in India in e-Commerce sector.

Recycling: MSTC has embarked upon setting up of the first mechanized Auto Shredding plant in India for processing of scrap from the End-of-Life Vehicles (ELVs). A joint venture Company namely Mahindra MSTC Recycling Private Limited has been formed. The Company's first Collection and Dismantling plant for ELVs was setup at Greater Noida and has completed three years of operations. As on date there are total six plants located at Greater Noida, Chennai, Pune, Indore, Ahmedabad and Hyderabad. The Plants at Indore, Ahmadabad and Hyderabad has been setup during the FY 22-23.

5.7.1 Capital Structure

As on 31-12-2022, 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.

5.7.2 Physical Performance

(Rs. in crore)

Parameter	2020-21	2021-22	2022-23*
E-Commerce	128796.31	136425.55	156896.98
Trading	189.59	379.35	145.06
Total Volume of Business	**128985.90**	**136804.90**	**157042.04**

*Provisional upto December, 2022

5.7.3 Financial Performance

(Rs. in crore)

Parameter	2020-21	2021-22	2022-23*
Turnover**	427.75	470.64	231.64
Operating Profit	117.16	224.76	203.27
Profit Before Tax	114.68	220.08	198.77
Profit After Tax	101.07	200.09	149.64

*Provisional upto December, 2022
** Turnover decreasing due to discontinuing of trading activity having risk.

5.7.4 Manpower

The man power strength of MSTC as on 31.12.2022 was 303.

5.8 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. As on 31.03.2022, Government of India holds 99.03% of its equity and rest 0.97% is held by Insurance companies, body corporate and public/others. The Company is currently engaged in the business of manufacturing and selling of Iron Ore 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 had 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.

The Company is in the process of adding additional production facilities as forward and backward integration to the existing Blast Furnace Unit Viz. Coke Oven Plant and Ductile Iron Spun Pipe (DISP) Plants to make its operations viable.

The Company under diversification activities is providing Operation and Maintenance services.

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 for the country.

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 (10MW) and Ductile Iron Spun Pipe (DISP) (0.2 MTPA) within the existing premises of Blast Furnace Unit at Mangalore.

Government of Karnataka issued Gazette Notification dated 23.01.2017 for reservation of an area of 470.40 ha. in Devadari Range, Sandur Taluk, Bellary District for Iron Ore and Manganese in favour of KIOCL Limited, under the provisions of section 17A (2A) of MMDR Act, 1957. Company has obtained Mining Plan approval from Indian Bureau of Mines on 08.03.2018 for production of 2 MTPA iron ore and setting up of 2 MTPA crushing, conveying and beneficiation plant. MoEF&CC, Government of India, vide letter dated 13th August, 2021 accorded Environment Clearance for Devadari Iron ore mine with a mine capacity of 2 MTPA Iron ore (ROM) and 500TPA manganese ore with 2 MTPA wet Beneficiation plant. MoEF&CC, Government of India vide letter dated 16.12.2022 accorded Final /Stage-II approval under Forest (Conservation) Act, 1980 for diversion of 401.5761 hectare (388.00 ha for Mining + 13.5761 ha for conveyor corridor, power transmission line, approach road of total 401.5761 ha) of forest land in Swamimalai (SM) Block Forest, Sandur Taluk, Ballari District, Karnataka. KIOCL executed mining lease deed of Devadari Iron Ore Mine with Director, Mines and Geology, Government of Karnataka on 02.01.2023 for 388 ha area for a period of 50 years for Iron Ore and Manganese Ore. An amount of Rs. 329.18 Crore paid on 13.01.2023 towards Stamp Duty and Registration Charges. The said Mining Lease Deed was registered on 18.01.2023.

5.8.1 Physical Performance

(In Million Tonne)

Particulars	2020-21	2021-22	2022-23*
Production of Iron Ore Pellets	2.210	2.030	0.834
Sales of Iron Ore Pellets	2.311	2.072	0.765

*Provisional upto December, 2022

5.8.2 Financial Performance

(Rs. in crore)

Particulars	2020-21	2021-22	2022-23*
Revenue from Operations	2,383.61	3006.45	815.05
Profit Before Tax	410.23	411.03	(-) 181.64
Profit After Tax	301.17	313.41	(-) 181.64

*Provisional upto December, 2022

5.8.3 Manpower

The manpower strength of KIOCL Limited as on 31.12.2022 was 652.

CHAPTER-VI

PRIVATE SECTOR

6.1 Introduction

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

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

S. No.	Name of Steel Company	Existing Capacity for 2022-23 (in MTPA)
1.	JSW Steel Ltd.	23
2.	Tata Steel Ltd	20.6
3.	ArcelorMittal Nippon Steel India Limited	9.6
4.	Jindal Steel and Power Ltd.	8.1
5.	Vedanta (ESL Steel Ltd.)	1.88
6.	Jindal Stainless Ltd	1.1
7.	Jindal Stainless (Hisar) Ltd.	0.78

Source: JPC

6.3 JSW Steel Ltd.

JSW Steel Ltd. is one of the foremost integrated steel company in India with an installed capacity of 28 MTPA, and has plans to scale it up in India and overseas. JSW Steel's manufacturing facility at Vijayanagar, Karnataka is the largest single location steel-producing facility in India with a capacity of 12 MTPA. The Company has been at the forefront of state-of-the-art, cutting-edge technology, research and innovation while laying the foundation for long-term growth. Strategic collaborations with global technology leaders to offer high value special steel products for various applications across construction, automobile, appliances and other sectors.

Aerial View of JSWVN

6.4 Tata Steel Group

Tata Steel group is among the top global steel companies with an annual crude steel capacity of 34 million tonne 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 $ 32.84 billion in the financial year ending March 31, 2022.

Tata Steel Limited, together with its subsidiaries, associates, and joint ventures, is spread across five continents with an employee base of over 65,000. Tata Steel 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 is a member of Responsible Steel TM, World Steel's Climate Action Programme and World Economic Forum's Global Parity Alliance. The Company, ranked as India's most valuable Metals and Mining brand by Brand Finance, featured amongst CII Top 25 innovative Indian Companies.

Kalinganagar Plant

6.5 ArcelorMittal Nippon Steel (AM/NS) India

AM/NS India, a joint venture between ArcelorMittal and Nippon Steel was established in December 2019 with a current annual capacity of 10 million tonne. AM/NS India is an integrated flat carbon steel manufacturer - from iron ore to ready-to-market products. The company's manufacturing facilities comprise iron making, steel making, and downstream facilities spread across India. AM/NS India offers more than 300 grades of steel, all of which conform to international quality standards, ascribing to being a trusted and reliable provider of steel solutions to customers in India and beyond. The products are accredited by Indian and global industry bodies. The company also operates significant iron ore pelletization facilities, with a current annual capacity of 20 million tonne.

6.6 Jindal Steel And Power Limited

Jindal Steel and Power Limited is an industrial powerhouse and one of the leaders in the Indian steel industry with a significant global presence. It operates the largest coal-based sponge iron plant in the world and has substantial presence in domestic power, mining and infrastructure sectors. The Company's geographical footprints span across Asia, Africa, Australia and the Middle East.

The Company produces economical and efficient steel and power through backward and forward integration. The Company's product portfolio spans across the steel value chain from widest flat products to a whole range of long products and rails. JSPL have Blast Furnace with a volume of 4554 m3, 2.75 MTPA New Electric Oxygen Furnace (NEOF), advanced Plate Mill capable of producing up to 5-meter wide plates–the widest ever built in India, 9 MTPA Pelletisation complex, Syn gas based DRI plant and Coal Gasification Plant for steel-making based on Swadeshi coal and 2.4 MTPA Rebar Mill.

6.7 Vedanta (ESL Steel Ltd.)

ESL Steel Ltd. (formerly known as Electrosteel Steels Limited), a Vedanta Group Company is an Integrated Steel Producer, was incorporated in 2006 as a Public Limited Company with operations in Bokaro, Jharkhand, India. In June 2018, Vedanta Limited acquired the management control of ESL through the Corporate Insolvency Resolution Process. The company has a current annual capacity of 1.88 million tonne per annum. The facility primarily consists of Sinter Plants, Coke Oven, Blast Furnaces, Oxygen Plant, Basic Oxygen Furnaces, Billet Caster, and Wire Rod Mill, Bar Mill, Ductile Iron Pipes Plant and a Power Plant. The Company's product range includes TMT Bars, Wire Rods, Ductile Iron Pipes, Pig Iron and Billets.

Aerial view of Plant

6.8 Jindal Stainless Limited (JSL)

Jindal Stainless Limited (JSL) is India's leading manufacturer of stainless steel with a melt capacity of 1.1 million tonne per annum (MTPA). JSL's state-of-the-art unit is located in India's eastern state of Odisha. The manufacturing complex, equipped with world class technology and equipment, is currently undergoing expansion and is set to nearly double its melt capacity to reach 2.1 million tonne per annum by the end of FY23. It is eventually scalable up to 3.2 million tonne per annum of stainless steel production. A rail-linked Inland Container Depot (ICD) is also operational at the Jajpur facility. The company operates a fleet of 40 rakes and 150 road trailers, with regular train services from to the Vizag Port. In December 2022, JSL signed a contract with the country's largest renewable energy company, ReNew Power, to develop a utility-scale captive renewable energy project for the supply of nearly 300 MW of power to its facility. Expected to start commercial operations by 2024, the project will generate 700 million units per year through a mix of solar and wind technologies.

Aerial View of Jindal Stainless Limited

6.9 Jindal Stainless (Hisar) Limited (JSHL)

Established in 1975, Jindal Stainless (Hisar) Limited (JSHL) has a stainless steel setup in Hisar, Haryana, with a capacity of 0.8 million tonne per annum. It 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. JSHL's state-of-the-art Specialty Product Division (SPD) caters to the high-end precision and specialty stainless steel requirements of reputed Indian and international customers. The product range includes stainless steel slabs and blooms, hot rolled coils, strips, plates, blade steel, coin blanks, precision strips, and cold rolled coils. JSHL also manufactures high-nitrogen steel for the Defence sector, which improves material efficiency in armour applications.

Aerial view of Jindal Stainless (Hisar) Limited

JSHL has recently partnered with Hygenco India Private Limited to install a Green Hydrogen Plant. This Green Hydrogen Plant will enable the Company to considerably reduce its CO2 emissions by nearly 2700 MT per annum. With this development, the Company is set to become the first stainless steel Company in India to install a Green Hydrogen Plant.

CHAPTER-VII

CAPACITY BUILDING, TECHNICAL INSTITUTIONS AND SKILL DEVELOPMENT

7.1 Capacity Building-Onboarding Mission Karmayogi

The Government has approved the 'Mission Karmayogi', the National Programme for Civil Service Capacity building (NPCSCB) which is a paradigm shift in enhancing the capacity of the civil servants by building their behavioral, domain and functional competencies, creating a framework of shared resources and transitioning from a rules-based to roles-based model of civil service to democratize learning and to create future-ready civil service. The programme will be delivered through the online i-GoT-Karmayogi e-learning platform of DoPT which create equitable access to world-class anytime-anywhere learning to all government officials.

The program aims to inculcate behavioral and functional competencies needed by a government official at any position and equip him with all knowledge needed to best discharge his duties. The programme will cover several aspects of training including HR management through integration with e-HRMS, monitoring and evaluation and competency framework. Competency will be based on the framework called FRAC- Framework of Roles, Activities and Competencies with-behavioural, functional and domain level. There will be three kinds of processes involved in implementation: identification of roles and responsibilities through FRAC, content creation and assessment and evaluation.

In order to implement the Mission Karmayogi within the Ministry, a Capacity Building Unit (CBU) led by Joint Secretary (in-charge of Establishment Division), Ministry of Steel has been constituted to roll out and implement the programme along with monitoring the capacity building progress of all employees in the Ministry and onboarding content on i-GoT-Karmayogi platform. Ministry of Steel has onboarded two contents on 'Iron and Steel Making' (Part-1) and 'Preventive Vigilance' during the year 2021 and supplementary content on 'Iron and Steel Making' (Part-2) in the year 2022 on i-GoT-Karmayogi platform.

Ministry of Steel has also started initiatives to frame Annual Capacity Building Plan (ACBP) in association with Capacity Building Commission (CBC) to institutionalize capacity building within the ministry and to understand the capability intervention at individual, organisational and institutional level.

7.2 Technical Institutions

7.2.1 National Institute of Secondary Steel Technology (NISST)

National Institute of Secondary Steel Technology was set up as a registered society on 18th August 1987 to provide trained technical manpower, industrial services, testing facilities, and consultancy services for the entire secondary steel sector throughout India. The Institute is managed by a Board of Governors which has representations from Industrial Associations, Prominent educational institutions apart from the Ministry of Steel. Presently Additional Secretary, Ministry of Steel, is the Chairperson of the Institute.

NISST undertakes various activities as follows:

- Industrial Consultancy.
- Training and Skill Development including in-house Training.
- Energy Audits (Accreditation from Bureau of Energy Efficiency, Ministry of Power, Government of India).
- Safety Inspection (Competent persons for safety inspection from Government of Punjab and UT of Daman and Diu and Dadra Nagar Haveli for safety Inspections).
- Lab Testing (NABL Accreditation and BIS recognition of Mechanical and Chemical Labs).

NISST is constantly working for the benefit of the secondary steel sector on various fronts such as Sponge Iron, Electric Arc Furnace, Induction Furnace, Continuous casting, Reheating Furnaces, Rolling Mills, Quality of Steels and other related technological areas. NISST is also working on the formulation of the Steel Policy for the Secondary Steel Sector.

7.2.2 Biju Patnaik National Steel Institute (BPNSI)

BPNSI has been established with the objective to be a Centre of Excellence that will provide technology, service, and trained manpower to the steel industry. The institute is registered under the Societies Registration Act, 1860, and started functioning from January 1, 2002. The Cabinet had on February 20, 2004 approved the setting up of the permanent campus of BPNSI at Puri as a full-fledged institute with capital funding from JPC but could not be set up there due to land problem. The institute shifted to Kalinga Nagar, the mega steel cluster of Odisha on 1st March 2021 for achieving the vision of being a finishing school in the steel sector and making youth employable. A full time Director for the Institute has been appointed for undertaking revival of the institution.

7.3 Skill Development

To create a technologically advanced and environmentally responsible steel industry, the Ministry of Steel with its initiatives ranging from enhancing domestic industries to green technologies, aspires to attain new heights in the labour market. On this transformative path, a brainstorming exercise was done by the Ministry with its other stakeholders (namely, IISSSC, NISST, BPNSI, INSDAG, Skill Council for Mining Sector, IIT Kharagpur, TATA Steel, JSW Steel Ltd., AM/NS) on April 7, 2022 for drawing up a Roadmap to develop functional competencies of Indian steel workforces in new technologies (green technology and industry 4.0). The activities outlined therein are currently being implemented. National Institute of Secondary Steel Technology (NISST) under the administrative control of the Ministry of Steel had conducted 19 in-house and other training programme for steel sector during the period from April to December, 2022. Furthermore, 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 duration skill development training Short-Term Training(STT) and Recognition of Prior Learning (RPL). During the Financial Year 2022-23, 662 CPSE employees were re-skilled and assessed by IISSSC out of which 178 were from Rashtriya Ispat Nigam Ltd, 99 were from Rourkela Steel Plant and 385 from Bhilai Steel Plant.

CHAPTER-VIII

RESEARCH AND DEVELOPMENT

8.1 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 AM/NS. 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".

8.2 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.

8.2.1 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.

8.2.2 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.
- Joint proposals with other laboratories/ institutions/ industry are desirable for providing support under the scheme.
- In case of lab scale research by the research laboratories and academic institutions funding upto 70% of the total cost is permissible.
- In case of Industrial/ Commercial organizations, financial assistance of upto 50% of the total cost is permissible.
- For Pilot/Demonstration Scale R&D projects, financial assistance will be limited to upto 40% of the total cost and the balance to be met by the industrial partner.

8.2.3 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.	2018-19	15.00
2.	2019-20	15.00
3.	2020-21	0.54
4.	2021-22	4.81
5.	2022-23*	0.70
	Total	**36.05**

*upto December 2022

The details of funds released during 2022-23 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 2022-23 is Rs. 4.49 crore and for the FY 2023-24 is Rs. 10 crore.

8.2.4 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 & Financial Adviser and Joint Secretary, Ministry of Steel, Director IIT Kharagpur, Director IMMT, Director NML are the 2nd Stage approving body for the R&D proposals recommended by Evaluation Group.
- Final approval is accorded by the designated authority based on the cost of the project as per the guidelines issued by Department of Expenditure.
- A Project Review Committee monitors the progress of the on-going projects on a regular basis.

8.2.5 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 Kharagpur, IIT Kanpur, IIT Madras, IIT BHU, MNIT Jaipur 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.

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

8.2.6.1 Initiatives by Public Sector Units

Steel Authority of India Limited (SAIL) :

Research and Development Centre for Iron and Steel (RDCIS) is the corporate R&D unit of Steel Authority of India Limited (SAIL). Over the years, RDCIS has earned credentials of being an R&D Centre of international repute in the field of ferrous metallurgy. The major thrust of RDCIS is to plan, demonstrate and implement multi-disciplinary R&D programmes in the steel plants of SAIL to improve key performance indices related to quality, productivity and yield. RDCIS works hand-in-hand with steel plants, Central Marketing Organization and other units of SAIL to develop value added market centric products, reduce product cost, improve process technologies and to promote sustainability. It undertakes R&D projects in diverse realms of Iron and Steel Technology under the categories of Basic Research, Product Development, Plant Performance Improvement, Scientific Investigation and Design and

Technical Services. The Centre has created state-of-art facilities to ensure in-depth scientific research in diverse fields of iron and steel technology. It is equipped with 6 pilot facilities and more than 300 diagnostic equipments under 15 major laboratories. With a view to add value to the steel plant wastes, RDCIS has initiated laboratory trials of utilizing LD slag, fly-ash and BF granulated slag for making of paver blocks and bricks. Some encouraging results have been obtained at the laboratory. After extensive studies, laboratory investigations and interactions with suppliers, around 700 pavers blocks have been produced at RDCIS. With the encouraging results, a pilot plant has been developed and installed at RDCIS for carrying out further trials and research activities.

SAIL is also associated as one of the industry partners for the research on development of steel slag-based cost-effective eco-friendly fertilizers for sustainable agriculture and inclusive growth through the Ministry of Steel, and ICAR-Indian Agricultural Research Institute (IARI).

Rashtriya Ispat Nigam Limited (RINL) :

R&D initiatives at RINL 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 research organizations under collaborative research. In addition to the studies and projects taken up internally, RINL-R&D has collaborated with premier educational institutes research laboratories and research organizations for joint research initiatives. Collaborative projects taken up with external partners include Central Road Research Institute (CRRI), New Delhi and Indian Institute of Technology, Kharagpur.

NMDC Limited:

R&D center at NMDC is equipped with latest characterization facilities and takes research project related to Mineral beneficiation, Agglomeration and Bulk solid flow properties. Recently, the facility for characterization of coal along with pilot scale coke making has been added to R&D center in short span of time. The R&D center extends its vital support to NMDC's existing and upcoming projects. R&D center also extends its expertise to other organizations (in both public and private sector). Presently actively working on development of dry beneficiation technology for upgradation of lean/low grade iron ore. The water will be scarce in future, considering future need lab scale dry beneficiation technology has been developed and demonstrated. The application is filed for patenting of the developed dry beneficiation technology.

8.2.6.2 Initiatives by Private Sector Units

Tata Steel Limited (TSL) :

The brief details of key projects ongoing in FY 2022-23 are provided below:

- Design and development of API X-70 sour steel grade for sour service application.
- Development of rust preventive coating on nails.
- Development of FeO Sensor for Sinter plants.

- Third generation AHSS using Q&P technique.
- Electrode Development for High Strength Steels.
- Fracture and Crack Growth Behavior (CTOD) of Line Pipe Steels at Cryogenic Temperatures (-45^0 C) for X70/X80 grade.
- Micro pillared wheel disc for improved fatigue performance.

The brief details of key projects initiated in FY 2022-23 are provided below:

- Application of mixtures of LD Slag and Ferrochrome slag in different building construction materials.
- Catalytic Conversion of CO_2 to CO.
- Genetically engineered cyanobacteria and algae for conversion of CO_2 to value-added products.
- Study of Inclusion generation mechanism for IF steel grades.
- Injection of CO_2 through bottom tuyeres in BOF.
- SMART Solution Package for Energy Efficient Cooling Tower.
- Development of procedure for automated coke petrography and its implication in coke making.

JSW Steel Ltd :

The Research and Development (R&D) activities at JSW Steel Ltd. are focused on development of new processes and products, process improvement, quality and productivity improvements, energy efficiency improvements, cost reduction, waste utilization and conservation of natural resources.

Focus areas of R&D:

- New product development, product customization and new applications.
- Quality and productivity improvements through process efficiency improvements.
- Process waste utilization and value added products developments.
- New process / technology development for process intensification.
- Optimal resource utilization and conservation of natural resources.

- Increasing the research horizon through collaboration with premier institutions and research centres.

R&D Infrastructure and facilities added during FY 2022-23:

- Rotating Beam fatigue testing machine
- AccuPyc Pycnometer
- GeoPyc Envelope Density Analyzer
- Auto Polishing Machine
- Polarized Microscope Image Analyser

ArcelorMittal Nippon Steel (AM/NS)

The objective of the R&D program is to make ArcelorMittal Nippon Steel India Ltd a leading and sustainable steel producer in India through focuses applied research in the areas of:

- New and innovative steel products
- By-products of steel plant
- Process improvements
- New and local raw materials

The R&D is a 'In-house R&D' approved by DSIR. The facilities include:

- Sophisticated metallurgy lab with optical and scanning electron microscope with EDX and EBSD, microhardness tester, hysteresis loop tracer etc.
- High performance computer simulation lab with software like Thermocalc, Matlab, JMat-Pro
- Raw material research lab with laboratory scale High gradient magnetic separators, X-Ray Diffraction, FTIR, Particle Size analysers, hydro-cyclone, ball mill, pelletizers, pellet induration and sintering simulators.

New product development: A total of 16 new grades and 6 import substitute grades have been developed in FY 2022-23.

CHAPTER-IX

PROMOTION OF STEEL USAGE

9.1 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, inter-alia, 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.

9.2 Steel Usage scenario in India

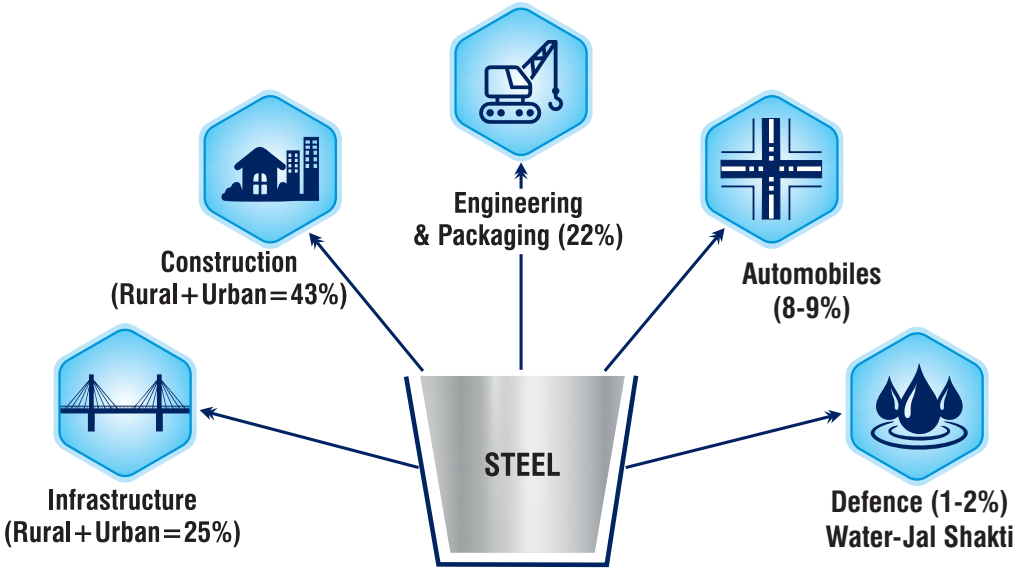
9.2.1 During the last 5 financial years and current year, the consumption of Steel in India is as given below:

Total Finished Steel (alloy/stainless + non-alloy) Consumption		
Year	Quantity(MT)	%change over previous years
2017-18	90.71	7.9
2018-19	98.71	8.8
2019-20	100.17	1.5
2020-21	94.89	-5.3
2021-22	106	11.7%
2022-23*	85.88	-

Source : JPC, *Upto April-December, 2022

The consumption of steel during FY 2020-21 was low due to the impact of Covid-19 pandemic.

9.2.2 In India, steel is primarily consumed in growth driving sectors such as Housing and Construction (43%), Infrastructure development (25%), Engineering and Packaging (22%), Automotives (8-9%) and Defence and Jal-Shakti (1-2%). During the financial year FY22, the total steel consumption in the country was 106 Million Tonne. However, India's annual per capita steel consumption is 77 kg per annum and is one-third the global average (233 kg). India's rural per capita consumption at 21.3 kg per annum is well below the national level. There is large scope to improve the steel usages in various sectors.



9.2.3 The Indian Automobile Industry is expected to be the world's third-largest automotive market in terms of volume by 2026. The auto industry's growth will invariably augur well for its associated industries such as Steel, which provides a considerable portion of raw materials to manufacture automobiles. The share of domestically produced steel is also increasing for manufacturing of the automobiles.

9.3 India's steel demand outlook

India's total steel demand is expected to grow at 7.2% CAGR through FY 31 and reach ~230 MT. 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).

9.4 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 Rs 103 lakh crore investment 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 from FY22-FY25 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 launched a Production-linked Incentive (PLI) Scheme for Specialty Steel to make the Country aatmanirbhar in manufacturing of 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.

9.5 Efforts made by Ministry of Steel to promote steel usage

9.5.1 Ministry of Steel has been engaging with stakeholders from various sectors such as Housing and Construction, Infrastructure, Urban Development, Ralways, Defence, Oil and Gas, Civil Aviation, Rural Development, Agriculture, Dairying and Food Processing. The sector wise initiatives are as given below :-

- 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.

- To spread awareness for advantages of using steel- Seminars/Webinars are held regularly by involving central Ministries/Departments, user industries and steel producers. Till now Workshops/Webinars held with Ministry of Railways, Defence, Ministry of Petroleum and Natural Gas, Ministry of Housing and Urban Affairs, Civil Aviation, Rural Development, Agriculture and Farmer's Welfare, Food Processing Industries etc. These helped the Steel Industry to access the short, medium and long term requirement of steel of the sector concerned. Furthermore, such workshops would be held with Ministry of Road Transport and Highways of India, Jal Shakti, Automobile Industry during this year.

- 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.

- 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 designs for long span (30m, 35m, and 40m) steel based Bridges. The design for 30 m has been approved and sent to MoRTH for adoption. The design for 35 M and 40 M are under progress.

9.5.2 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 that has submitted the detailed proposal along with the financial requirement for Development of Type Designs of Aanganwaadi and Houses across India. The R&D project on "Development of Type designs of Anganwaadi and Houses using Structural Steel as part of Pradhan Mantri Awas Yojana towards Enhancing Use of Steel in Housing Sector" has been approved by the Ministry of Steel for providing the financial assistance (40%) from Ministry of Steel and Balance (60%) from Industry partners.

9.5.3 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. The rural per capita steel consumption in

the country has been of the order of 21.3 kg against the all India average of 77 kg. Ministry of Steel is actively looking at avenues to enhance steel consumption in rural areas. Increase in agricultural implement penetration in rural India (tractors, combine harvesters etc.), creation of permanent houses under Pradhan Mantri Awas Yojana – Gramin along with an increase in steel silos for grain storage and greater rural vehicle penetration will enable a rise in steel use in rural India. The Core Committee under the Joint Working Group has been developing steel based houses under the PMAY-G and Aaganwadi houses.

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

9.6.1 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 include:-

- New products have been developed for various applications like High Strength Steel for Pre-Engineered Buildings, Seismic grade Thermo Mechanically Treated bars, Special steel plates for submarines, High Tensile Structural and Plates with improved ductility for Defence, Various grades of API (American Petroleum Institute) to cater Oil and Gas pipeline; High Carbon Wire rods for Wire drawing, etc.

- SAIL has enhanced its efforts towards increasing sales of special quality steel to consumers from the new Wire Rod Mill of IISCO Steel Plant. Electrode Grades, High Tensile Grades, Cable Armour Quality, Bright Bar application and Auto Industry Grades have been developed and commercialized.

- In order to promote steel intensive construction, SAIL has launched its parallel flange beams under Brand name “NEX”. These sections are expected to help in design flexibility and optimize costing. SAIL has conducted over 50 interactions with customers/ designers.

- In order to enhance retail presence, especially in rural areas, SAIL supplies its reinforcement bar Retail brand “SAIL-SeQR” which is promoted as better quality steel for safer homes.

- In order to promote domestic manufacturing of shipping containers, SAIL along with other producers have interacted with BIS and other Government Ministries for issuance of an appropriate BIS standard for the steel required. On issuance of the requisite standard by BIS, Bokaro and Rourkela Steel Plants are in the process of seeking the required BIS certification. Besides standardization, this would help to reduce dependence on imports.

- For enhancing usage of steel in designs, SAIL has been conducting workshops/lectures at engineering colleges across the country. Seminars have been held for architects

and designers on the theme “New Challenges in Steel Design and Construction” for promoting steel structure designs.

- Cross functional teams comprising representatives from Marketing and Plants were formed for development of new products. Seminars, Presentations and meetings have been organized with various stakeholders to enhance product knowledge, facilitate product development and create product recall.
- In April-October FY 22-23, steel consumer meets were organized along with the Ministry of Steel at Agartala, Jammu, Roorkee, Chandigarh and Surat where the Union Minister of Steel addressed the stakeholders.
- SAIL has been actively pursuing with various Ministries to put emphasis on Life Cycle Cost in projects and on Government initiatives aiding increased usage of Steel.

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. These include:-

- For construction grade reinforcement bars (TMT), Retail Network under Tier-2 Distributorship scheme (for TMT)has been strengthened with 42 Distributors and 4433 Dealers. In FY2022-23, Tier-2 Retail sales up to October 22 has been approximately 0.44 Million Tonne.
- SAIL also owns an E-portal (www.sailsuraksha.com) where customers can book TMT orders online.
- In the 1st half of financial year 2022-23, a total of 78 workshops (named as “SAIL Gaon Ki Ore”) have been held.
- Mason meets are being jointly organized with INSDAG for providing guidance to the masons towards better usage of steel and promoting SAIL-SeQR TMT.
- Other mediums of mass advertising through ‘Media Post’ such as passbook, ‘Meghdoot post card’, and LED screens have been planned to be taken up at rural areas. SAIL will be sponsoring caps, T-Shirts etc. for distribution among the Gramin Dak Sevaks (GDS) attached to rural post offices.
- In order to cater to the requirement of MSMEs and small businesses, SAIL has strengthened Tier-1 Distributorship scheme (Other specified products).There are 16 distributors in place for catering to the demand of B2B segment.Tier-1 scheme has contributed sales of 0.24 Million Tonne in April-October 2022. In October 2022 the off take is 42514 Tonne.
- SAIL has supplied steel to a number of Iconic Projects of National importance, viz INS Vikrant, Regional Rapid Transport System, Delhi Meerut Expressway, Eastern Dedicated Freight Corridor Corporation, Western Dedicated Freight Corridor Corporation, Coastal Road Project Mumbai, NPCIL Fatehabad Haryana, HPCL Rajasthan Refinery limited Barmer, Bullet Train Project from Ahmedabad to Mumbai.

- As an initiative for showcasing steel usage and enhancing smart city aesthetics, SAIL has been designing and supplying Stainless steel artefacts and ready to use products like iconic Giant Charkha, Make in India Lion, Bus Shelters, Litter Bins etc.

9.6.2 Rashtriya Ispat Nigam (RINL) :

Steps taken by RINL include:-

- RINL has always been visible by way of promotional and branding activities in its market and product mix. It is working towards empowering small steel consumer in rural areas of the country by making steel available through rural dealer network (RDS).

- For providing fillip/boost to the steel consumption in rural India, pro-active campaign is made to highlight usage of RINL products and their advantages in the community infrastructure in rural and semi-urban areas. Rural Dealership Scheme at RINL has been improved by providing various incentives and expanded its operations to new areas. Rural Dealers, who take up promotional activities like Hoardings, Wall Paintings, Newspaper / Cable TV Advertisement etc., are entitled for a reimbursement for promotional activities.

- RINL has appointed Market Research Contact Officers across India for extending RINL's outreach to the pockets of the untapped markets in rural areas.

- A new Portal has been launched 'E-Suvidha" to cater to remote areas of the country. RINL has started selling material through E-Suvidha, on-line sale. This initiative is with a view to service requirement of every corner of Digital India through internet enquiry and door delivery provision.

- Expanding Distributor/Dealer network by appointing Distributor/Dealer networks.

- RINL has held multiple promotion campaigns such as Architects, Builders and Construction Engineers meets (ABC Meets), Workshops on Good Construction Practices (Mason Meet), Special Steel Customers Meet and Meeting of Original Equipment manufacturers (OEMs) to increase steel consumption in semi-urban and rural areas.

- Forged Wheel Plant (FWP) at Rae Bareilly has been put up for production of Forge Wheel for Indian Railways both in the category of LOCO and LHB Coaches, which is basically an Import substitution unit.

9.6.3 MSTC Ltd.:

MSTC, through the organized and transparent process of e-Auction of scrap, promotes recycling of steel and other materials. This saves energy and reduces carbon emissions and promotes sustainable development of the country.

MSTC through its subsidiary, Ferro Scrap Nigam Limited (FSNL), recycles slag for various major steel plants. In addition, through its joint venture (JV) company, Mahindra MSTC Recycling Private Limited (MMRPL), end-of-life vehicles (ELVs) are being dismantled in an eco-friendly way for recycling steel scrap.

CHAPTER-X

ENERGY, ENVIRONMENT MANAGEMENT AND CLIMATE CHANGE

10.1 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 decarbonize 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:

10.2 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 include 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 MOEFCC, Ministry of Power, BEE, MNRE, 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 6th May, 2022" and "Roadmap for Circular Economy in Steel Sector on 1st July, 2022.

10.3 Initiatives for energy efficiency

The Ministry of steel is working on initiatives to improve energy efficiency of steel sector. Under this, National Action Plan on Climate Change (NAPCC) has been launched in 2008 to address the challenge at the national level. NAPCC outlines 8 National Missions, one of them being the National Mission for Enhanced Energy Efficiency (NMEEE). Perform, Achieve and Trade (PAT) is the flagship scheme of BEE under NMEEE. PAT is a market-based mechanism through certifications of energy savings that could be traded. PAT has become effective from April 2012. The threshold limit of 20,000 tonne of oil equivalent (TOE) has been marked as the cut-off limit criterion for any unit in the iron and steel sector to be identified as designated consumer.

Under the PAT scheme, 197 Iron & Steel plants have been notified who would be required to reduce the Specific Energy Consumption (SEC) from their baseline value. 67 of these Designated Consumers (DCs) have completed PAT I and entered the PAT II cycle along with 9 new DCs. Currently 71 DCs have participated in PAT 2 cycle, which has ended in March 2019. PAT III, PAT IV, PAT V and PAT VI cycle are also notified by BEE in 2017, 2018, 2019 & 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 in PAT cycle-VI.

PAT Cycle-I Achievements: The total savings achieved by Iron and Steel sector by the designated consumers in PAT Cycle I was 2.10 Million TOE. For achieving this, DC's has invested Rs. 5199 crore in various Energy Conservation Measures.

PAT Cycle-II Achievements: The total savings achieved by Iron and Steel sector by the designated consumers in PAT Cycle II was 2.913 Million TOE. For achieving this, DC's has invested Rs 4396 crore in various Energy Conservation Measures.

During the cycle-I and cycle-II of PAT scheme, the sector has saved 5.013 MTOE energy and resulted in equivalent emission reduction of 18.64 MTCO2 as total.

Iron and Steel Sector

Iron and Steel Plant coverage in PAT Iron and Steel Sector							
SR.	PAT Cycles	Year of Imple-mentation	Total number of Units covered under PAT (Cumu-lative)	Total Production (MT) of Units (Cumu-lative)	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	107.04	65.76	2.37	2.913 (Achieved)
3	PAT Cycle-3	2017-18 to 2019-20	100	117.71	73.40	0.456	-

Iron and Steel Plant coverage in PAT Iron and Steel Sector							
SR.	PAT Cycles	Year of Imple-mentation	Total number of Units covered under PAT (Cumu-lative)	Total Production (MT) of Units (Cumu-lative)	Total Energy Consumption (million TOE) of units (Cumulative)	Energy saving target (Million Toe)	Savings (million Toe)
4	PAT Cycle-4	2018-19 to 2020-21	135	122.57	76.62	0.192	-
5	PAT Cycle-5	2019-2020 to 2021-22	158	127.27	79.44	0.168	-
6	PAT Cycle-6	2020-21 to 2022-23	163	128.91	79.955	0.031	
7	PAT Cycle-7	2022-23 to 2024-25	161	211.98	128.305	2.09	
8	PAT Cycle-7A	2022-23 to 2024-25	197	230.95	140.005	0.821	

Note– PAT cycle is notified for three years. PAT-III, PAT-IV, PAT-V & PAT-VI cycle are notified by BEE in 2017, 2018, 2019 & 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.

10.4 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.

10.5 Use of Green Hydrogen in Steelmaking

In National Green Hydrogen Mission, as drafted by MNRE, 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-di-oxide while hydrogen reduces iron ore producing water.

- **BF Route**

In India, 68% steel is made through Blast Furnace 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.

10.6 Organization of Side-Event at COP-27

Ministry of Steel hosted a session on the 6th Day of COP-27 event in Sharm-EL-Sheikh, Egypt on 11th November, 2022. The event consisted of various sub-sessions focused on Decarbonization of Indian Steel Industry. Discussions were held with reference to Hon'ble PM's vision on reducing and utilizing carbon and promoting circular economy in steel. In the event, major steel players including AMNS, JSPL, JSW, TATA Steel and SAIL showcased their roadmap towards reducing carbon emissions while 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.

Eminent panelists from Ministry of Steel, UNIDO, International Finance Corporation, Arcellor Mittal group, Indian Steel Association, Clean Energy Ministerial, The Energy and Resources Institute, Centre for Science and Environment, Climate Bonds Initiative, Council on Energy, Environment and Water, TATA Steel and International Finance Corporation discussed the host of relevant issues related to the decarbonization challenges faced by Indian Steel Sector and the way forward.

CHAPTER-XI

DEVELOPMENT OF NORTH-EASTERN REGION

11.1 Introduction

The Ministry of Steel has been exempted from the requirement of earmarking 10% of its budgetary allocation/ Gross Budgetary Support for North-Eastern Region (NER).

11.2 Initiatives by Steel CPSEs in North East

11.2.1 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 NER. It has a Branch Sales Office at Guwahati which looks after marketing of Steel products in whole of NER. Apart from Branch Sales Office, there is a Consignment Handling Agency (CHA) at Guwahati and two Consignment Agency (CA) Warehouses located at Silchar and Itanagar. During the period Apr-Dec 2022, SAIL has sold more than 2.14 lakh tonne in NE Region and is on a growth path over previous years.

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 19km 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, AIIMS Guwahati and Medical Colleges in Silchar, Tinsukia and Sibsagar in Assam, New Guwahati International Airport, Sela Pass Tunnel at Tawang Arunachal Pradesh, Expansion Project of Numaligarh Refinery Ltd.

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 footprint of Retail sales in North East India has widened as reflected in the increase in number of dealers to 230 till December 2022.

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 Bus Branding through Assam State Transport Corporation (ASTC), hoardings at important places like Airport and cultural events have been undertaken by Distributors.

11.2.2 Rashtriya Ispat Nigam Ltd. (RINL)

North-Eastern Region is one of the focused regions with a potential for infrastructure development in terms of Rail Network expansion, Refineries, Hydro Power, Thermal Power stations, Coal and Natural Gas facilities as this region is abundant with the natural resources. RINL is meeting the requirement of this region from various project customers, manufactures by servicing from RINL's stockyard at Kolkata.

In order to improve the presence in the North-Eastern Region, RINL has tied up with IWAI (Inland Waterways Authority of India) for stockyard operation on their land at Guwahati. Handling contractor has been appointed and sales has commenced.

Further, RINL is channelizing material supplies to this region through Rural Dealers located in various NE states like Assam, Meghalaya, Manipur etc. In future, there is a possibility for extending the outreach to North-Eastern Region through 2-Tier Sales and Distribution system of RINL.

11.2.3 MSTC Ltd.

MSTC has set up a Branch Office at Guwahati for serving customers in the North Eastern Region. For the last few years, many activities for implementing e-Commerce in Agriculture and Horticulture sectors were undertaken to help improve the livelihood of the farmers. MSTC has also developed portal for sale of coal from Meghalaya.

11.2.4 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 (JVC) to develop and operate the grid. MECON has been appointed as consultant to the project for rendering Project Management Contract (PMC) services for execution of the project.

CHAPTER-XII

INTERNATIONAL COOPERATION

12.1 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 91st session of the Steel Committee was held virtually on 29-31 March 2022. The Committee's 92nd session was held on 19-20 September 2022 in Paris, France.

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

- A delegation led by Hon'ble Steel Minister, visited United Arab Emirates (UAE) during 10th-12th March 2022 inaugurate 'Steel Week' in India Pavilion at World Expo, Dubai. Meetings were held with Indian Business and Professional Council (IBPC) and People of Indian Origin Chambers of Commerce and Industry (PIOCCI), Abu Dhabi Investment Authority (ADIA) and Steel producers and consumers of U.A.E. The discussions

involved attracting investments in India in steel sector, Productivity Linked Incentive Scheme (PLI) for Specialty Steel and export of Indian Steel to U.A.E.

- Indian delegation participated in the 91st Steel Committee Meeting of OECD held virtually on March 29-31, 2022.

- Indian delegation participated in the 92nd Steel Committee Meeting of OECD held on September 19-20, 2022 in Paris, France.

- The first 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 virtually on October 14, 2022. The meeting was co-Chaired by Additional Secretary, Ministry of Steel, and Deputy Director General, METI, Government of Japan and was attended by officials from Ministry of Steel, Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of External Affairs, Embassy of India (Tokyo), representative from NITI Aayog, Ministry of Consumer Affairs, Senior Executives of the Indian Steel Companies (public and private) and Indian Steel Association (ISA) from Indian side. From Japanese side, the meeting was attended by officers from METI, Government of Japan, Embassy of Japan in India and representatives of Japan Iron and Steel Federation (JISF).

- A delegation led by Secretary, Ministry of Steel participated in COP 27 event held on November 11, 2022 in Sharm-El-Sheikh, Egypt to organize side-event regarding Decarbonisation of Indian Steel Industry. The event consisted of various sub-sessions focused on Decarbonisation of Indian Steel Industry. Discussions were held on reducing and utilizing carbon and promoting circular economy in steel.

CHAPTER-XIII

DEVELOPMENT OF INFORMATION TECHNOLOGY

13.1 Introduction

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

- The Computer Centre in the Ministry consisting of high end servers, Client Systems, Local Area Network (LAN), Video Conferencing facility and Wi-Fi setup is operational to provide ICT services to the Minister of Steel, Minister of State for Steel, Secretary(Steel), Sr. officers and staff in the Ministry of Steel.
- All the Web Applications and services of the Ministry are hosted in NIC Cloud using PaaS (Platform as a Service).
- A LAN of about 250 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 (a mission mode project of Government of India) with built in modules such as Electronic File Management System, Knowledge Management System, Leave Management System 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. The eRequisition, Stock and Inventory Management System has been developed for automating the requisition process, filing and its approval by Admin General section, and maintenance of the Stock and Inventory at backend.
- 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. Its 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.

- High-Definition VC setup are operational in the chambers of Hon'ble Steel Minister, Hon'ble Minister of State and Secretary (Steel). Steel Conference Room is also equipped with a VC system. Monthly PRAGATI VC of Hon'ble Prime Minister and many other VCs at national and international level are conducted using these VC Systems. Around 1000 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 CPSEs.
- Right to Information Act - Management Information System (RTI-MIS) - facilitates monitoring of Requests and Appeals received under RTI Act 2005. The system is implemented in the Ministry and its CPSEs.
- Public Financial Management System (PFMS), a financial management platform has been implemented in the Ministry.
- PRAGATI - Platform for Pro-Active Governance and Timely Implementation.
- Online Pension Sanction and Payment Tracking System 'BHAVISHYA' for timely payment of retirement dues and issue of Pension Payment Order (PPO).
- Legal Information Management 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 GoI (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.

NIC organized extensive virtual meetings at intra or inter-ministerial levels through Video Conferencing/web-based VC systems and provided VPN services to all officials of the Ministry for accessing eOffice and in facilitated Work from Home amid prevailing lockdown situations due to COVID-19 pandemic in the country.

Ministry's Official Website

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

TC-QCO Portal of the Ministry

An online system for Processing of Applications by importers for Clarification on Notified Steel Grades (https://tc-qco.steel.gov.in/tc-qco) has been designed and developed by NIC. Around 35000 clarifications have been issued till date using the Portal. Approximately 1500 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 Awards. 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 was done for year 2021 as per the criteria decided by the competent authority. After online processing, the awards were distributed on 20th April 2022.

This Portal was again opened on 12th September 2022 to invite online applications for nomination of National Metallurgists Day Awards. The Online portal for receiving and processing of Applications has been designed and developed by NIC-Ministry of Steel and hosted on NIC-Cloud. Total 100 On-line Nominations have been received to the Ministry till now.

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 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/), an Analytical dashboard on Steel Sector performance, has been designed using specialized business intelligence (BI) tools. Salient features of the Analytical Dashboard are: -

- Monthly, Quarterly and Annual Analysis of Finished Steel, Crude Steel, Sponge Iron and Pig Iron Production, Monthly Trend Analysis, Public vs Private Sector Production Analysis, Category-wise, Producer-wise and Furnance-wise Production Analysis.
- Monthly, Quarterly and Annual Analysis of Crude Steel, Sponge Iron and Pig Iron Capacity Utilisation, Monthly Trend of Utilisation, Public vs Private Sector and Producer-wise Capacity Utilisation Analysis.
- Daily, Monthly, Quarterly and Annual Trend Analysis of Trade (Import and Export) and Trade balance Analysis, Top Importing and Exporting Countries, Category-wise and Sub Category-wise Analysis.
- Monthly, Quarterly and Annual Analysis of Consumption analysis of Finished and Value-Added Steel, Category-wise and Sub Category-wise Analysis.
- Prices of Steel Items at four metro cities in the country, Fortnightly Price Trend of Steel Items.

- Producer-wise and Sector-wise Monthly Stock Analysis.
- Daily Rail Production.
- Status of Raw Material reserves and Daily evacuation quantity of raw material from CPSE mines.
- Company View and both +ve and -ve alerts on CPSEs performance.
- Last 10 years historical data analysis related to Crude Steel and Finished Steel Production, Capacity Utilization and Trade.

PM Dashboard of 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. 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.

13.2 Computerization of Accounts

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

On receipt of monthly 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&II), SCT, has been successfully uploaded during the year to the e-Lekha website (http://164.100.12.160/Elekha/elekhaHome.asp) for viewing expenditure and receipts of the Ministry at any time.

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

Public Financial Management System (PFMS): Public Financial Management System (PFMS) is a financial management platform for all plan schemes, a database of all recipient agencies, integration with core banking solution of banks handling plan funds, integration

with State Treasuries and efficient and effective tracking of fund flow to the lowest level of implementation for plan scheme of the Government. It provides information across all plan schemes/ implementation agencies in the country on fund utilization leading to better monitoring, review and decision support system to enhance public accountability in the implementation of plan schemes. PFMS has gradually improved administration and 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 the supply of goods and services, execution of works etc. by the latter. Under the phased roll 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, SBIePay 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 GoI Departments/Ministries who do not have any existing solution for online collection of their receipts. The NTRP Portal has been formally launched by Hon'ble Finance Minister on 15 Feb' 2016. NTRP portal is being used by Ministry of Steel. In FY 2021-22 Rs. 4662.81 crore non-tax revenue was collected through NTRP transaction. In FY 2022-23 (upto December, 2022) Rs. 736.53 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.

13.3 Steel Authority of India Ltd. (SAIL)

SAIL has stepped up Digital Transformation and Industry 4.0 initiatives to improve business performance and thus enhance overall customer experience. All integrated steel plants, marketing setup and Corporate Office are already working on ERP solution and are continuously striving to improve their business processes so as to achieve automation and reducing manual effort. SAIL has also taken various initiatives to strengthen its IT infrastructure and cyber security setup. Salient features include:

- SAIL Digitization Industry 4.0 roadmap has been prepared and a Dashboard has been developed for tracking Digital Transformation Initiatives of Industry 4.0 in SAIL.
- IT Security policy of SAIL was revised incorporating latest security aspects. Also, multiple Cyber security awareness sessions on cyber-threats and safe practices were held in various forums in line with the GOI initiative for Cyber Security.

- Mobile Apps for enabling Digital Mobility and User Convenience have been introduced in various areas such as issuance of medical referral letter, area pass approval, shutdown requisitions, employee services, patient feedback etc. Further, bar coding has been implemented to automate processing of medical booklets, issuance of gate pass to contract workers, maintenance of machineries etc.
- To enable sharing of knowledge, experiences and digital initiatives taken by other Maharatnas and with a view to develop a collaborative platform, a CPSE Meet on "Digital Acceleration - The CPSE Perspective" was organised by SAIL.
- ERP has been extended to mines operation of Bhilai Steel Plant. For other plants viz. RSP and BSL the process is already underway.
- Government e Marketplace(GeM) has been integrated with ERP at few integrated steel plants to reduce manual effort.
- Interfacing of ERP with MES and legacy systems is also being done in areas such as Blast Furnace, Hot Strip Mill wherein data is being captured from various PLCs for generation of intelligent reports.
- Automated Vehicle entry-exit system using Artificial Intelligence for detecting Vehicle Number Plate, Vehicle Positioning etc. installed at few warehouses to improve productivity and minimise human interference.
- GPS based vehicle tracking started in plant works area to track the movement of various vehicles inside the plant with features like path deviation, over-speeding alerts etc. for safety and security.
- For improving safety posture, Safety portal developed and deployed with online features like Near miss recording, Safety inspections, Safety Trainings etc.

13.4 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 2022-23 till December 2022 are given below:

- E-tendering and e-auction has been implemented in FWP on SAP-SRM platform for procurement of Services related to FWP.
- Improvements in Steel Melt Shop & Blast Furnace :
  - Implementation of Auto calculation of SMS2 Ladle circulation time by capturing LF Level2 and Caster Level2 Heat details in real time.
  - Display of RH status, SMS1 and SMS2 Caster cooling parameters in Plant overview screen.
  - Implementation of program to display mould differential temperatures, zone wise water flows, water pressures, withdrawal and straightening roll module forces, zone wise for SMS2 Casters.

- Implementation of an app for generating SMS2 KPIs (Avg. O2, scrap consumption, heat weight) on daily basis.
- Mobile App for BF2 Status/Mimic has been implemented.

- Improvements in Rolling Mills:
  - Implemented roll shop module for SBM.
  - WRM2 Process network has been revamped in a major way to establish redundancy of network and Core Switches used by both L1 and L2.
- Improvements in Financial functions:
  - Developed and implemented indicative costing for significant plant outputs at various stages.
  - A software for product cost prediction based on various inputs has been developed, deployed in the central server and implemented.
  - New withholding tax (under section 195) for payment of fee for technical services for foreign service providers were configured
  - Computation of taxable contribution for PF and Income Tax Deduction at source as per new government directive has been implemented.
- Development and implementation of Quarterly Progress Report on Contracts for Vigilance Department.
- Online learning system for safe work practices with reading material and questionnaire has been developed and implemented.
- Departmental Inventory Management System has been implemented in ACVS department.
- New demurrage charge calculation has been implemented based on latest circular for both Incoming and Outgoing Rakes with effect from 01-09-2022 after incorporating changes in the software.
- A system has been developed and implemented for Heavy Vehicles Monitoring System (HVMS).
- Surveillance audit for ISO 27001 for business data centers of RINL completed for the year 2022.

13.5 NMDC Ltd.

- **Implementation of ERP (SAP):** NMDC went live on ERP SAP S/4 HANA and all Core Modules have been implemented. Management Dashboard for Production, Dispatch & CSR was launched in April-2022 and Dashboard for other functionalities like Material Management, Quality & HR is being launched shortly. This analytical Dashboards will provide the insight to the management on real time / near real time basis for well informed decision making.

- With progressive automation that is being taken up like upgradation of PLC, SCADA and other Digital Initiatives like Fleet Management System, the focus is now on integrating all these automations with ERP for data capturing in real time. Capture of automated data from weigh to meters for plant production will be functional in major Iron Ore Mines of NMDC soon.
- An MOU has been signed with M/s.Railtel on 10.10.2022 for providing ICT and Digital Transformation Services to NMDC. Strong IT Infrastructure Backbone is the key requirement and prerequisite for any digital initiatives. The technology refresh will not only enhance the performance and provide proactive centralized management with AI Features but will also enhance our IT Security Landscape.
- SAP Digital Compliance Solution was implemented in Jun-2022 for E-Invoicing & GST Reporting. Vigilance Portal is under development for Complaint Monitoring System.
- Reward Points Management System which was implemented earlier at Bacheli has been centralized and hosted at Hyderabad. An IR clearance module has also been added. During the year, this software has been implemented at Kirandul and Panna also.

13.6 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 equipments 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.
- MOIL has taken following projects as Digitization Initiative:
  - Miners Tracking, Voice and Data Communication System for Underground Mines.
  - Fuel Dispensing & 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.

13.7 MECON Ltd.

Digital Initiatives Undertaken:

Following digital initiatives have been undertaken in MECON at organisation level:

- Centralized Data center at Ranchi housing high end blade servers, SAN (Storage Area Network), NAS (Network Attached Storage), UTM (Unified Threat Management) and connected to internet through three different Internet Service Providers.
- High-end Personal Computers/Laptops/Tablets are used for business operations. Work stations and large displays along with new edge engineering software used for the 2D/3D design and analysis.
- Campus wide networking in major engineering and site offices.
- HD Video conferencing system used in major engineering and site offices to conduct business and review meeting.
- In-house developed Software for seamless integration of all the services of departments like Personnel, HRD, Purchase, Corporate Finance, Marketing, Project Management and Project Finance, etc.
- The following services are also available in online web platform:
  - Performance Management system
  - E-swasthya hospital management system
  - Town Administration management system

- Estate management system
- Digitisation of hard copy document and drawing

Digital Initiatives undertaken for Ease of Doing Business

MECON has taken the following initiatives towards Ease of doing Business:

- A new Online System has been implemented for applying in MECON Post-Superannuation Medical Benefit Scheme, which is now a part of MECON Ex-Employee Portal. This portal is used by Separated Employees to apply fresh or renew their membership in the said scheme. These applications are processed using the system. Separated employees may track their application through this portal.
- A new Online Payment Gateway System has been implemented by MECON which provides an easy way for digital mode of payments by payee. It will ensure timely payments received and transparency between payee and MECON. Payment related to Vendor Registration, Recruitment, Tenders fees etc. are received through Gateway. Online payment gateway facilitates secure transactions, expanded customer base, faster transaction processing and adds convenience of making payments at any hour.
- Vendor Bill Tracking System has been implemented by MECON for tracking Suppliers and Contractor Bills. Vendors are able to track bills using Receipt Numbers sent via email, on MECON Corporate Website. Detailed payment information including Deductions is available to Suppliers and Contractor. It streamlines approval flows, reduces errors. A new provision to show the Journey of a bill has been introduced. This ensures timely payments which helps to build relationships and creates transparency.
- Inspection Call Management Vendor Portal is an online platform to raise Inspection and Waiver calls from anywhere. In last one year, dependency on hardcopy submission has been eliminated by uploading documents in the system by Vendor. Presently the process of Inspection Call Management is paperless. Due to elimination of hardcopy, documents are now more organized and can be easily filed and retrieved by stakeholders. It has also ensured data security and faster communication.
- Vendor Registration Portal has been introduced by MECON, for providing an online system for Vendor registration where manufacturers from varied industries can register themselves for different items under Oil & Gas and Non-Oil & Gas category. They can track their application status online and can also apply for renewal of registration.

Ongoing New Digital Initiatives:

The objective of ERP& DMS implementation in MECON will be to adopt best of the industry and business practices offered by ERP product. Project also includes implementation of DMS with tight integration to ERP solution. The DMS system will provide a paperless platform for Workflow/Archival requirements for Documents/ Drawings/ Files at enterprise level.

13.8 MSTC Ltd.

Following digital initiatives have been undertaken:-

- ISO 27001:2013 certification is in place and the same is under yearly surveillance audit by STQC, Kolkata.

- MSTC has developed in-house and implemented many customised projects like 5G Spectrum auction, ELV Portal, API integration with bank for better management of online payment system, API integration with Karnataka Forest Deptt. & UP Mines Deptt. for exchange of auction related data etc.
- MSTC has also developed and customised in-house application of Dashboard, Project Tracking System, Air Ticket Management System, e-Office etc. along with improvements in other applications like ISTMS, PNA, Bill Tacking, Online Annual Performance Report etc.
- STQC Certification for advance version of e-procurement portal has been obtained.

13.9 KIOCL Ltd.

The Information Technology is used in KIOCL across all the plants and offices. Some of the Applications have been developed in-house and through external vendors like, Finance and Accounting, online self-service application like Pay Slip, leave management, annual property returns etc., inventory system, IMIS application for purchase department, decision support system, training information portal, online ACR system, HRMIS system for master database of employees.

To have an Integrated Information System, Implementation of ERP SAP 4 HANA hosting on cloud is under progress for the key modules like Finance (FICO), HR (HCM), Materials (MM), Plan Maintenance (PM), Production, Planning & Quality (PP & QM) and Project Systems (PS) along with other modules/functions. At present UAT for all the modules is under progress.

Revamping of Company Website: The revamping of existing Website is completed. The Website is in bilingual with land page in Hindi.

CHAPTER-XIV

SAFETY

14.1 Background

The iron & 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 & Steel industry needs to prevent injuries & accidents and provide a healthy working environment to its workforce.

14.2 Initiatives of Ministry of Steel

- To make the Iron & 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 & Steel industry. Inputs have also been taken from the World Steel Association's guidance document on "Safety & 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 & 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.
- Ministry of Labour & Employment has been requested to facilitate mandatory adoption of the Safety Guidelines by the Iron & Steel Industry. Ministry of Labour & 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 & Working Conditions (OSH&WC) Code 2020.

14.3 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 neighborhood of its plants, mines and units and accords top most priority to this vital issue amidst other business function.

14.3.1 Management Commitment

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

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

Board level: Board Sub Committee on Health, Safety & Environment (BSC on HSE) to review & 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 & 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.

14.3.2 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, Bokaro, Rourkela and IISCO Steel Plant to improve the safety culture; launching of award schemes viz. ‘Safety Excellence Award for Integrated Steel Plants (i-SEA)’ and ‘Sarvocha Suraksha Puraskar for promoting Near Miss reporting’, Introduction of ‘Suraksha Manthan’ for discussing issues of concern with Plants and Units; Introduction of interaction module ‘Sampark’ for HODs and Front Line Executives; Safety Capsule ‘Sparsh’ in the beginning of every training programme at MTI; Theme Based Gas Safety audit by engaging external expert; Preparation of Process Safety Guidelines by Ministry of Steel; dissemination of Safety Alert Messages (SAMs) and Good Safety Practices (G-SaPs), organizing LEO (Learning from Each Other) workshops on areas of safety

concern with participation of SAIL plants and country's reputed steel producers as well as organizing webinars on important topics for the plant personnel with experts from DGFASLI (Directorate General Factory Advice Service and Labour Institutes under Ministry of Labour and Employment, Government of India), migration from OHSAS-18001: 2007 to ISO 45001: 2018, which is a new international standard for occupational health and safety management etc.

14.4 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. 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 Directors conducts monthly review meetings. 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 ensures Preventive Safety Management practices. One Central Safety Committee and 31 Departmental Safety Committees exist with equal participation from recognized trade union representatives and management representatives.

Safety initiatives:

- Provided Digital Barricading with a rotating laser caution light on the cranes for alerting workmen on the shop floor about the crane movement.
- Developed an Online Module "Safety Belt Monitoring System" to monitor the safety harnesses.
- Conducted Plant Level Mock Drill in the presence of Factories Department Officials, Government of Andhra Pradesh.
- Conducted Surprise Checks using speed gun and the defaulters were counselled.

14.5 NMDC Ltd.

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.

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 are being monitored by Internal Safety Organization.

Integrated Management System Certification (IMS): All the Projects of NMDC i.e. BIOM, Kirandul Complex; BIOM, Bacheli Complex; Donimalai Iron Ore Mine & 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.

14.6 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.

- 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.

14.7 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.

14.8 MSTC Ltd.

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

14.9 KIOCL Ltd.

KIOCL has well designed and comprehensive Safety Management system at its plants. KIOCL Pellet Plant and Blast Furnace Units are covered under Factories Act and all the safety parameters, standards are complied with as per the Rules and Regulations provided therein the Factories Act, 1948 and its subsequent amendments.

The Onsite emergency plan approved by Director of Factories is in existence for both Pellet plant and Blast furnace unit.

KIOCL has been following SOPs and each Department in the Plant has their own standard operating procedures which are being followed. Based on the Departments involved in the production process at Pellet Plant a booklet has been prepared on “Code of Safety Practices” at Pellet Plant from the Safety Department to follow these safety practices meticulously by the concerned. More emphasis has been given on the safety aspects related to the equipment’s in use at our Pellet Plant.

The Company has formed area wise safety committees. Worker’s participation in these Safety Committees is ensured in PPU and BFU units of KIOCL.

Safety Audit and onsite Emergency Mock drills are conducted in Pellet plant and Blast furnace unit, to check the Emergency preparedness for any Major accident. Safety Inspections are carried out regularly once in a week and once in two months by the Safety officer/staff along with concerned department engineers and Safety committee members. The observations made during Inspection is noted and reported to concerned departmental heads for compliance. Suitable standard Personal Protective equipment’s such as Safety helmets, Shoes, Respirators, Rain coats, Gloves, Safety Goggles, Face shields, Aprons, Ear plugs/ muffs are purchased and issued to all employees including Contract labors to protect them against work place hazards.

Various Training programmes are being conducted to inculcate Safety consciousness and to develop the human resources. The Refresher Training are conducted on SOPs and Maintenance activities, first aid, Firefighting training, Awareness programme on Environment, Occupational health, Safety, Vigilance Sustainable development, Productivity.

CHAPTER-XV

WELFARE OF WEAKER SECTIONS OF SOCIETY

15.1 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 182 employees against sanctioned strength of 246 in the Ministry, as on December 31, 2022, 42 belonged to SC (23.08%), 7 belonged to ST (3.85%), 45 belonged to OBC (24.73%) and 1 belonged to EWS (0.55%). The posts belonging to Central Secretariat Services (CSS), Central Secretariat Clerical Services (CSCS) and Central Secretariat Stenographers Service (CSSS) are filled by Department of Personnel & Training (DoPT) and the posts belonging to Indian Enterprises Development Service (IEDS) are filled by Ministry of Micro, Small & Medium Enterprises.

15.2 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 1.01.2023, out of total manpower of 60039, 10,126 belong to SCs (16.9%), 9,540 belong to STs (15.9%) and 9,645 belong to OBCs (16.1%). As on 01.01.23, a total of 73 employees out of 60,039 belong to EWS category i.e. around 0.12%. 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 83% 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, underprivileged 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 Birhor Tribe of Jharkhand.
- For Skill Development and better employability, youths and women of peripheral villages have been provided vocational and specialised skill development training at various ITIs, Nursing and other vocational training institutes in the areas of Nursing, Physiotherapy, LMV Driving, Computers, Mobile repairing, Welder, Fitter and Electrician Training, Improved agriculture, Mushroom cultivation, Goatery, Poultry, Fishery, Piggery, Achar/Papad/Agarbati/Candle making, Screen printing, Handicrafts, Sericulture, Yarn Weaving, Tailoring, Sewing and embroidery, Gloves, Spices, Towels, Gunny-bags, Low-cost-Sanitary Napkins, Sweet Box, Soap, Smokeless chullah making, etc.
- Liaison Officers have been appointed as per Government instructions/guidelines for due compliance of the orders and instructions pertaining to reservation for SCs/STs/ OBCs/PWDs at 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.

15.3 Rashtriya Ispat Nigam Ltd. (RINL)

As on 31.12.2022, the total manpower of RINL is 14935 comprising of 2348 SCs (15.72%), 1134 STs (7.59%), 3042 OBCs (20.37%) and 60 belonging to EWS (0.4%).

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

15.4 NMDC Ltd.

The total number of employees in NMDC as on 31.12.2022 was 5667 out of which 842 belong to Scheduled Castes (14.85%), 1449 to Scheduled Tribes (25.56%), 1191 to OBCs (21.01%) and 44 to EWS (0.78%). As a policy, efforts are made to fill any shortfall/backlog vacancy 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.

15.5 MOIL Ltd.

The total manpower as on 31.12.2022 is 5666 (male 4858, female 808) out of which 1114 belong to Scheduled Castes (19.66%), 1437 to Scheduled Tribes (25.36%), 2092 to OBCs (36.92%) and 283 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 Centers.
- 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.

15.6 MECON Ltd.

As on 31.12.2022, out of 1083 employees on the strength of the Company, 234 employees belong to SC (21.6%), 106 belong to ST (9.8%), 144 belong to OBCs (13.3%) and 4 belongs EWS (0.4%).

MECON has adopted adequate measures for safeguarding the interests and welfare of weaker sections. The Company is fully aware of its social responsibilities for development and welfare of members of Scheduled Caste / Scheduled Tribe Communities. Employees belonging to Scheduled Caste / Scheduled Tribe category and their families residing in Shyamali Township enjoy all the facilities as available to others. In order to implement the Government of India Directives and Post-based Rosters with regard to recruitment and promotion of SCs/ STs, SC/ST Cell has been formed with Sr. General Manager (HR) as Liaison Officer. The SC/ST Cell maintains proper record regarding recruitment and promotion and statistics of SC/ST employees and furnishes reports to the Ministry of Steel on regular basis. The Company has made consistent efforts to accommodate SC/ST candidates in all recruitments in MECON as well as in promotion to the next higher grade as per Government Directive. All possible steps are taken to fill up the post in reserved category as per Government Directives issued from time to time.

15.7 MSTC Ltd.

The total manpower as on 31.12.2022 is 303 out of which 46 belong to Scheduled Castes (15.18%), 16 to Scheduled Tribes (5.28%) and 82 to OBCs (27.06%) and 09 belong to Person with Disability (2.97%).

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 31.12.2022,15 ST, 37 SC, 72 OBC and 8 PWD employee 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 function primarily to safeguard the interest of the reserved section of employees of the Company.

15.8 KIOCL Ltd.

The total number of employees in KIOCL as on 31.12.2022 is 652, out of which 100 persons belong to Scheduled Caste (15.34%), 45 persons belong to Scheduled Tribe (6.90%), 94 persons belong to Other Backward Classes (14.42%) and 2 persons belong to EWS (0.31%).

The Company has set-up 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.

A total of 140 employees put together in all Groups 'A', 'B', 'C', 'D' and D(S) were promoted upto December, 2022, out of which 17 employees belong to SC category and 09 employees belong to ST category during the period.

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

CHAPTER-XVI

VIGILANCE

16.1 Activities of Vigilance Division of the Ministry of Steel

The Vigilance Division of the Ministry is headed by a Chief Vigilance Officer (CVO) at the level of Joint Secretary or above appointed on the advice of the Central Vigilance Commission (CVC). The CVO with a Deputy Secretary, an Under Secretary and supporting staff, functions as the nodal point in the vigilance set-up of the Ministry under the administrative control of Secretary, Steel. 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;
- Appointment of CVOs in the CPSEs in consultation with Department of Personnel & Training (DoP&T) and CVC;
- Regular follow up with the CVOs of Steel CPSEs in relation to vigilance related issues, including preventive/ systemic improvements measures;
- Obtaining Vigilance Clearance in respect of Board Level Officers for their appointment, confirmation, extension of service, etc.;
- Ensuring rotation of officials / officers holding sensitive posts, as per CVC guidelines; and
- Sending periodical reports / returns to CVC/DoPT.

The Vigilance Departments in all CPSEs are headed by a full time Chief Vigilance Officer appointed by the Government of India. The Vigilance Department in the Ministry of Steel monitors the incumbency position of CVOs and regularly update the same to DoPT to ensure that there is no vacancy in the post of CVO. Two new CVOs, one in NMDC and another in RINL, were appointed during the year 2022.

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 cases and wherever necessary, held discussions with the CVOs of concerned CPSEs for early resolution of issues. 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 year 2022-23 (from 01.04.2022 to 31.12.2022), the Vigilance Division received 60 complaints from various sources. Out of the 60 complaints received, 41 complaints have been suitably disposed off and appropriate actions in respect of remaining 19 complaints/ references have been initiated. Besides, factual reports / comments in 22 cases were furnished to the CVC and advise from Commission suitably implemented. In pursuance with CVC's advice in the year 2021, disciplinary action in 2 cases involving 18 Board Level Officer (s) / Below Board level officers of two Steel CPSEs were initiated and the action completed in respect of 2 officers in year 2022. Vigilance Clearance proposals in respect of 26 Board Level officers were sent to the CVC during the period from 01.04.2022 to 31.12.2022.

This Ministry also observed Vigilance Awareness Week from 31.10.2022 to 06.11.2022. On this occasion, Integrity Pledge was administered by Secretary, Ministry of Steel to all the employees. Apart from displaying banners / posters at prominent locations in the office premise, a Quiz Competition and an Essay Writing Competition on a Topic "Honesty and Integrity in public life; pre-requisite for prosperity and economic well-being of all" were organized. The CPSEs under the Ministry of Steel also observed Vigilance Awareness Week during the period.

16.2 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. Following activities were undertaken by SAIL Vigilance during the period April 2022 – December 2022:

Training Programmes organized by SAIL Vigilance: A total of 131 training/awareness programme/workshops involving 2498 participants were organized at various plants and units of SAIL for enhancing awareness on System and Procedures followed in SAIL. These trainings include 28 dedicated two day Preventive Vigilance programs wherein a total of 471 Executives have been covered.

Vigilance Awareness Week 2022: Vigilance Awareness Week was observed in SAIL. The week started with administering the Integrity pledge and reading out of messages of dignitaries on 31st 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. The activities conducted during the week were posted on social media like Twitter handle and Facebook account of SAIL for wider publicity. A Preventive Vigilance Booklet "DOs and DON'Ts" was also released during the Vigilance Awareness Week.

Thrust Areas of SAIL Vigilance:

- Verification of payment of wages and other statutory benefits in high value services contracts.
- Maintenance / updation of hindrance register in Project cases.
- Receipt, sampling and testing of high value raw materials.
- LTE procurements against UCS codes created in last one year.
- Re-tender cases after L-1 price discovery in original tender.

Preventive Checks: A total of 1894 Preventive Checks including File Scrutiny and Joint Checks were conducted in vulnerable areas of different Plants / Units of SAIL, out of which 25 checks were taken up for detailed investigation while preventive / system improvement recommendations were made in 489 cases.

System Improvement Projects: A total of 16 System Improvements Projects (SIPs) were taken up at different Plants/units of SAIL after identifying concern areas.

Intensive Examinations: A total of 12 cases were 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: Steel Authority of India Limited (SAIL) has achieved the distinction of becoming the first Maharatna Public Sector Unit to have implemented the Anti-Bribery Management System (ABMS). During the concluding ceremony of the Vigilance Awareness Week on 5th November 2022, the Bureau of Indian Standards (BIS) awarded the ABMS Certificate as per IS/ISO 37001:2016 to Corporate Office and Bokaro Steel Plant of SAIL in the presence of Shri P.K. Srivastava, Vigilance Commissioner.

SAIL Vigilance Manual 2022, containing up to date guidelines and emerging issues like e-vigilance, conflict of interest etc., was release by CVO SAIL on 18th June, 2022.

16.3 Rashtriya Ispat Nigam Ltd. (RINL)

Vigilance Department conducted system studies on the procedures being followed in procurements, sales and award of contracts including expansion area for improving existing

procedure and systems, wherever required. Intensive examinations of contracts / purchase orders were conducted and audit paras / internal audit reports were perused. Identification and follow up w.r.t rotation of Sensitive Posts, conducting Surveillance Checks, random scrutiny of bills etc. were also undertaken. Besides, 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. Information Technology was leveraged for bringing about greater transparency through e-initiatives like e-auction, e-reverse auction and 100% e-payment etc. The following activities were undertaken to promote Transparency and Integrity:

- 174 system surveillance checks were conducted which included 25 quality checks, 7 check on Contract provisions and 4 periodic surprise checks on medical services.
- 10 physical sessions on preventive vigilance covering 476 employees were organized.
- Scrutinization of 30 files which included 7 System studies for improving procedures, rules, policies, guidelines etc. These were taken up and Vigilance observations/ recommendations were communicated to the concerned Departments.
- Observance of Vigilance Awareness Week – 2022 was done vigorously with the theme "Corruption free India for a developed Nation". Several programmes viz; Pledge taking, display of posters, Essay writing, Quiz Elocution Competitions etc., were organized involving the participation of employees, their dependents and other stakeholders.

16.4 NMDC Ltd.

NMDC Vigilance Department has taken several initiatives during the year. Emphasis was laid on adequate checks and balances in the form of well-defined systems and procedures. Various programmes were conducted for awareness on Vigilance matters for the employees of the Corporation. The vigilance functionaries at the projects have conducted regular training classes for the employees on the vigilance matters. Complaints received were taken up for investigation and regular preventive checks were done for necessary corrective measures and system improvements.

Inspections / Checks: A total 97 surprise checks, 82 regular checks and 12 CTE Type Inspections were carried out during the year across all the Production Projects / Head Office.

Structured Meeting and Management Audit of Vigilance Unit (MAVU): The Structured meeting of Vigilance department under the chairmanship of CMD, NMDC was conducted on quarterly basis, wherein CVO, NMDC along with vigilance team detailed the vigilance activities and discussed the pending issues for compliance. A team of CVC officers visited NMDC Corporate Office in the last week of July, 2022 to conduct Management Audit of NMDC's Vigilance Unit. Additional Secretary, CVC also held an Exit Meeting with CMD and CVO, NMDC on the observations of MAVU team after the scrutiny/audit.

Complaint handling: Vigilance Department has received 67 complaints on which necessary action was taken. Based on the investigation findings, 05 suggestions for corrective action/

system improvements have been made to the concerned department. The Complaint Handling Policy of NMDC which came into effect from 01.01.2022 has been approved by the Competent Authority and uploaded on Company's Website for wider publicity and information of all the stakeholders.

ISO Certification for Vigilance Department: NMDC Vigilance Department has been conferred with ISO 9001:2015 certification and the same is valid till 30.06.2025. The periodical audit of the Quality Management System was conducted by M/s RINA and based on the suggestions of the Quality Auditor, necessary improvements in the functioning of Vigilance department have been implemented.

Workshops/Conclaves/training programs: A special thrust is being given by the Vigilance Department on sensitization and awareness of employees in the areas of procurement, tendering, CDA Rules, domestic enquiries, etc. In this process, several training sessions were arranged on the topics like Procurement and GeM related issues, conducting domestic enquiries, roles of IO and PO, Conduct, Discipline and Appeal Rules, etc. Senior and experienced speakers from CVC, Ministry of Finance and Expenditure, Indian Railways, SVPNPA, BDL, etc. conducted such training sessions which were attended by more than 70 NMDC employees on an average.

Training Programs arranged under Preventive Vigilance Module: As per the guidelines of CVC, NMDC is regularly arranging training programs for creating awareness among its employees as per the Action Plan drawn under the Preventive Vigilance Training Module. During the year, 3 training programs, through Hybrid mode, under Preventive Vigilance was arranged for Induction level employees covering 186 employees and 43 training programs were arranged for Mid-career level employees covering 478 employees. A total of 664 Employees from all the Production Projects, Regional Offices and Head Office were covered for training under Preventive Vigilance module.

Leveraging Technology: Implementation of online IR Clearance Module is under progress. This system will not only enhance operational efficiency but ensure the transparency and will help in timely payment of bills to firms/contractors.

I**mplementation of Integrity Pact:** NMDC has adopted implementation of Integrity Pact since November 2007. As per the suggestions given by Vigilance Department, the threshold value has been decreased to Rs. 1.0 crore w.e.f. 07.09.2018 for both Procurement and Contracts. All the contracts wherein the Integrity Pact was to be signed as per the threshold limit was adhered to and more than 92% of the total values of the contracts are covered under the Integrity Pact. 603 vendors /bidders who have so far entered into the integrity Pact for the works/contracts have been awarded contracts by NMDC.

Quarterly Review Meeting of CVO with VOs: The Quarterly Review meeting of NMDC Vigilance Officers are being conducted on regular basis. Issues pertaining to Vigilance matters including routine and surprise inspections, CTE inspections, and system improvements suggested for various operational and administrative processes were discussed/shared during these Quarterly meetings.

Vigilance Awareness Week (VAW): Vigilance Awareness Week-2022 was observed from 31st October to 6th November 2022 on the theme "Corruption free India for a developed

Nation" across all the Projects/ Regional Offices and Head office of NMDC. Integrity Pledge was administered by CVO, NMDC to the employees of Corporate Office and by the Heads of Projects / RMs at Production Projects and Regional offices of NMDC.

16.5 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 and to improve their efficiency and effectiveness and expediting decision making by mean of productivity. 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., Mumbai accredited by Joint Accreditation System of Australia and New Zealand for Quality Management System to provide vigilance services to the management of MOIL Ltd. Certificate issued by ICS is worldwide recognized by IAF (International Accreditation Forum). The Certificate is valid till 21st May 2023.

Inspections: Routine/ Periodic and surprise inspections are carried out regularly to ensure adherence to norms during execution of contract and to suggest improvements in the system. 13 periodic, 17 surprise and 6 CTE type inspections have been carried out. Based on the inspections, advisories have been issued to the Management for streamlining the procedures and plugging the gaps in the system which may lead to corruption and mismanagement.

Complaint handling: Vigilance Department has processed total 52 complaints including 12 complaints referred by Ministry of Steel.

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 2022 in which issues related to GeM procurement, Updating of Manuals, Biometric attendance system in Mine, Award of Contract on nomination basis, appointment of Estate officer, Status of Systemic improvement advisories issued by Vigilance and other agenda items have been 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 25th May' 2022 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. Action taken by Vigilance Department and MOIL Management include online portal for customer, online Bill tracking system, digitization of records, submission of on line Annual Property Returns (APR) in File Lifecycle Management System (FLM), installation of biometric attendance system at Mines and Plants, implementation of online Vigilance clearance system, online system for approval of Competent Authority for acquisition of immovable property, development of database of complaint for report generation, transfer of data from one automated system to Systems Applications and Products (SAP).

Job Rotation: Sensitive posts have been identified for rotation of officials working on sensitive posts for more than 3 years. Out of 218 posts identified for rotation, 153 transfers have been made so far.

Vigilance Awareness Week: Vigilance Awareness Week was observed from 31st October to 6th November, 2022 at all Mines/Offices of MOIL Limited.

16.6 MECON Ltd.

The vigilance set up of MECON is functioning under Chief Vigilance Officer (CVO). Vigilance Awareness Week, 2022 was observed by MECON Limited in a befitting manner and with great enthusiasm from 31st October to 6th November, 2022 in line with directive from Central Vigilance Commission with the theme "Corruption free India for a Developed Nation". To spread awareness, banners propagating message on Vigilance Awareness were displayed at various prominent places.

Preventive Measures are 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 conducted and issues related to Standardization of Bidding Documents, updation of organisation's Procedures and Manuals, Asset Management/ Digitization of Land record, appointment of Retired Officers as Inquiry Officer (IO), Computerized File Tracking System (including SAP/ ERP implementation) etc. have been discussed.

MECON has signed Integrity Pact (IP) with 324 suppliers/contractors (Threshold value lowered for wider coverage : Rs. 1 crore and above for EPC Projects and Rs. 25 Lakh and above for Town Administration as well for in-house Procurement).

16.7 MSTC Ltd.

The Vigilance set up of MSTC is headed by a full time Chief Vigilance Officer (CVO). The emphasis of the Vigilance Department has been to have in place effective preventive measures to fight against corruption and also to increase transparency and accountability in the functioning of the organization. Complaints received are taken up for scrutiny/investigation as per laid down guideline of Central Vigilance Commission and necessary suggestions for system improvement / disciplinary action are recommended to the Management. Examinations of contract/purchase orders are conducted and audit paras are scrutinized. Agreed list has been signed with CBI and list of Officers of Doubtful Integrity prepared. Identification of Sensitive Posts and ensuring their timely rotations, conducting surprise checks, random scrutiny of bills as well as property returns of more than 27% of total employees of MSTC is also undertaken. Some of the important activities undertaken by the Vigilance Department during the period January-December, 2022 are as follows:-

- 62 complaints received and 52 complaints disposed of.
- 18 contracts/audit reports scrutinized; 2 resulting in investigation.
- 7 Surprise Checks and 5 regular inspections were conducted.
- 5 system studies have been taken up on various issues.
- Based on Vigilance activities 11 Systemic Improvement recommendations were made to the Management.
- **Training Programs:** One Vendor Meet was organized by Vigilance Department on Vigilance Awareness Week-2022. Two Preventive Vigilance Training Sessions was organized through online mode where 49 employees are covered. Six Sensitization programs conducted including MSTC offices at Delhi, Hyderabad, Bhubaneswar, Raipur and Ranchi.

Vigilance Awareness Week-2022 was observed on the theme “Corruption Free India for a Developed Nation” in all offices of MSTC. Organization website was extensively used for the wider dissemination of the observance of Vigilance Awareness Week on the theme for the employees as well as public.

16.8 KIOCL Ltd.

Preventive vigilance has been the thrust area of Vigilance Department all these years and the same has received focused attention during the year. Regular Structured Meetings of Vigilance with the Management were conducted and issues related to e-governance, Leveraging Technology, Tender Management, Award of Works, Systemic Improvements, review of Conduct Rules, Discipline and Appeal Rules of the Company, rotation of officers holding sensitive posts, implementation of Integrity Pact etc., have been discussed.

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

Vigilance Awareness Week-2022 was observed from 31st October to 06th November, 2022 at all the locations/offices of KIOCL Limited with the theme “Corruption free India for a developed Nation”.

e-Procurement is in vogue and the threshold value for this is fixed at Rs. 2 Lakh and above. During 2022 (April-December), 94.56% cases by value are covered under this. All payments are being made through electronic mode.

During 2022 (April-December), 138 work/purchase/sale orders have been issued incorporating Integrity Pact Clause, covering 96.70% of contracts by value.

59 Scrutiny, 24 inspections, 14 surprise checks and 10 CTE type inspections were carried out during the period and corrective actions and systemic improvements were suggested. Necessary action is taken as regards to the complaints received during the year.

Vigilance Department conducted 2 training programs for employees. Topics such as Public Procurement and Preventive Vigilance were covered. During the year, one training program on Preventive Vigilance for Induction level employees as per CVC PV training module was conducted covering 270 man-hours.

During 2022 (April-December), 6 training programs related to Vigilance were attended by officers including Vigilance Officers totaling 770 man-hours.

Publication of quarterly “Vigilance Newsletter” was introduced to help the Company and its employees to stay abreast of the changing methods of working and adapting to them while maintaining high level of integrity. The newsletters contain the latest O.M.s and Circulars issued by various Ministries/Departments of Government of India and Central Vigilance Commission which has bearing on the working of KIOCL for compliance. It also contains case studies of system improvements and preventive vigilance initiatives implemented in other organisations which can be emulated by KIOCL for increasing efficiency and transparency.

CHAPTER-XVII

CENTRALISED PUBLIC GRIEVANCE REDRESS AND MONITORING SYSTEM AND SPECIAL CAMPAIGN FOR DISPOSAL OF PENDING MATTERS

17.1 Centralised Public Grievance Redress 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) in May-June, 2022. The upgraded CPGRAMS Version 7.0 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 01.01.2022 to 31.12.2022 is as under:

Ministry/CPSE	Outstanding as on 01.01.2022	Received during 01.01.2022 to 31.12.2022	Disposed off during 01.01.2022 to 31.12.2022	Pending on 31.12.2022
Ministry of Steel	36	1112	1086	62
SAIL	16	443	441	18
RINL	0	42	42	0
NMDC Limited	2	78	70	10
MECON Limited	0	31	30	1
MOIL Limited	0	14	14	0
KIOCL	0	0	0	0
MSTC Limited	04	25	27	02

17.2 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.

17.3 Rashtriya Ispat Nigam Ltd. (RINL)

In RINL, structured Grievance Handling System is in place for redressal of grievances of Executive and Non-Executive employees. 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. There is a separate Grievance Redressal Mechanism each for Executives and Non-Executives.

17.4 NMDC Ltd.

The grievance redressal machinery in NMDC is headed by Executive Director in the Head Office who is also the nodal officer for monitoring the grievance redressal machinery and by Head of Projects in the production Projects. 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 is received, the same is promptly attended to.

17.5 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.

17.6 MECON Ltd.

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.

17.7 MSTC Ltd.

MSTC has Public Grievance Redressal Cells. There are total eight cells in Regions and Branches of the organisation and there is a Nodal Authority and a Public Grievance officer in the Head Office. There is facility of online registration for lodging grievance on the Company's website www.mstcindia.co.in. MSTC has also implemented Centralized Public Grievance Redress and Monitoring System (CPGRAMS) for online receipt and disposal of public grievances so that grievance can be sorted out immediately and action taken. Action is taken to address and redress grievances received from outside and from staff of the organisation. Apart from the Cells, a Grievance Committee is also constituted at Head Office. The Grievance Committee makes recommendations after examination of the grievances and comments obtained from the concerned department/Region/Branch. The Grievance Committee meets at periodical intervals to review the cases. The Centralized Public Grievance Redress and Monitoring System (CPGRAMS) and Public Grievance site of the Company are monitored regularly by the Head Office.

17.8 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 for Public Grievance / Dispute settlements.

Public Grievance Officers are nominated at all locations. The development of Sevottam Compliant Citizen's Charter has been put in place in the corporate website: www.kioclltd.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.

17.9 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 2nd October 2022 to 31st October 2022. During

the campaign, 38255 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.; 43971 physical files have been weeded out and 4947 e-file have been closed during campaign period. In addition, several pending PG appeals/PG grievances, MPs references etc were settled. 280 Swachhta campaigns were carried out by the Ministry and its CPSEs pan-India.

Hon'ble Union Minister of Steel Shri Jyotiraditya M. Scindia during Swacchta Campaign

CHAPTER-XVIII

DIVYANG AND STEEL

18.1 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 December 31, 2022, six persons [two hearing handicapped (HH), one visually handicapped (VH) and three orthopedically handicapped (OH)] with disabilities are employed in the Ministry of Steel.

18.2 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 759 persons with various disabilities.
- Continuous efforts have been made for barrier free environment at work place 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.

18.3 Rashtriya Ispat Nigam Ltd. (RINL)

- 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.

- Providing 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.

18.4 NMDC Ltd.

NMDC, being a mining organization, is governed by the provisions of the Mines Act and Rules and Regulations thereof. Considering the safety factor, it is not possible to employ PwDs in jobs involving working in the mines/plant. However, efforts are made to induct PwDs in posts where field work is not involved and at present NMDC has 105 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.

18.5 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 December 2022, 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 persons 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.

18.6 MECON Ltd.

MECON has implemented the provisions of RPwD Act, 2016. As on 31st December 2022, there are 11 employees belonging to PwD category.

18.7 MSTC Ltd.

As on 31st December 2022, MSTC has 09 employees belonging to PwD category.

18.8 KIOCL Ltd.

As on 31st December 2022, KIOCL has 11 employees belonging to PwD category. Suitable provisions/modifications are made at the work place to meet the requirement of PwDs.

CHAPTER-XIX

PROGRESSIVE USE OF HINDI

19.1 Introduction

Ministry of Steel has made considerable progress in the use of Hindi in official work during the year 2022-23 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 under the administrative control of Chief Controller of Accounts (CCA). Rajbhasha 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 and at present it consists of one Deputy Director (OL), One Assistant Director (OL), two Senior Translation Officers, two Junior Translation Officers , two Stenographers 'D' and other supporting staff.

19.1.1 Official Language Implementation Committee

There is one Official Language Implementation Committee working under the Chairmanship of Chief Controller of Accounts (CCA) 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. Three (3) 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.

19.1.2 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, two meetings of Hindi Salahakar Samiti have been organized on 13.05.2022 at Gangtok and on 31.08.2022 at Varanasi.

19.1.3 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.

19.1.4 Hindi Divas/Hindi Fortnight/Hindi Month

In order to encourage the officers/employees of the Ministry for using Hindi in official work, appeals were issued by the Hon'ble Minister of Steel and Hon'ble Minister of State for Steel on 14th September, 2022 on the occasion of the Hindi Diwas. Hindi Fortnight was organized in the Ministry from 14th September to 28th September, 2022. 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. An award ceremony was also organized on 7th December, 2022 to distribute prizes and certificates to the winners by Hon'ble Minister of State for Steel.

19.1.5 Cash Award Scheme for writing original books in Hindi

Cash Award Scheme for writing original books in Hindi in the matters concerning steel and being dealt with by Ministry of Steel, is in operation comprising 1st, 2nd and 3rd prizes of Rs. 25,000/-, Rs. 20,000/- and Rs. 15,000/- respectively. The scheme is aimed at encouraging the writers to write original books in Hindi.

19.1.6 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. 24 such inspections have been carried out during the period under review. Apart from this, Parliamentary Committee on Official Language inspected different offices of CPSEs under the administrative control of Ministry of Steel.

19.1.7 Hindi Workshops

Hindi Workshops are being organized in the Ministry at regular intervals. On 27.06.2022, a hindi workshop was organized on 'Rajbhasha shuru se shuru karein' and on 14.12.2022, a workshop was organized with aim to motivate and enthuse officials to work in rajbhasha. A good number of officials of Ministry of Steel enthusiastically participated in these workshops.

19.2 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. ''आज का शब्द'' और ''आज का विचार'' is available on daily basis on SAIL Portal.
- SAIL's computers are Unicode enabled and hands-on-training is provided to employees

from time to time to improve their skill for doing day to day official work in Hindi. During the year, Hindi workshops were organized to popularize Hindi amongst its employees.

- Rajbhasha Fortnight was organized by SAIL Corporate Office, New Delhi. “Azadi Ka Amrit Mahotsav” was kept at the centre of various Hindi Competitions like Pictorial Expression, Memoir Writing, Poetry Recitation, Quiz competition, Dictation and Essay Writing etc.

19.3 Rashtriya Ispat Nigam Ltd. (RINL)

Initiatives taken towards progressive use of Hindi are as follows:

- **Training and Workshops:** 157 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. 86 employees were trained to work on computers in Hindi through Unicode. 431 employees were trained in Practice based Hindi Workshop conducted at HQ, Mines, Regional/Branch Sales Offices/Liaison Offices and Subsidiaries through online and offline. 130 employees were trained on Presentation regarding Official Language Policy. 17 employees were trained in Practice based Hindi Workshop conducted for Forged Wheel Plant

- **Inspections:** 34 Departments at Head Quarters and RO (North), New Delhi were physically inspected and 15 BSOs namely, Bhubaneswar, Hyderabad, Patna, Indore, Chandigarh, Kochi, Jaipur, Dehradun, Coimbatore, Ghaziabad, Faridabad, Kanpur, Ludhiana, Pune and Bangalore were inspected online during the said period. 3 Branch Sales Offices were inspected by Ministry of Steel; 4 Branch Sales Offices were inspected by 3rd Sub-committee of Parliament Committee on Official Language.

19.4 NMDC Ltd.

NMDC effectively continued its efforts to implement and comply with the Official Language Policy of the Government of India in its headquarters, projects and units. Following activities were undertaken:

- During the month of September, Hindi Fortnight was celebrated. Various competitions in Hindi were conducted. Prizes to winners as well as to Officials doing their maximum work in Hindi were also given by CMD and Directors at a function at Hyderabad.

- In-Charge of Regional Implementation Office, Bangalore, Department of Official Language, Ministry of Home Affairs inspected Rajbhasha implementation of Head Office (HO) during the period and commended work of NMDC in Rajbhasha implementation.

- Hindi workshops conducted in every quarter to train officials in doing their routine work in Hindi.

- Regular Classes continued for “Hindi Parangat” training with assistance of Hindi Pradhyapak of Government of India, Hindi Teaching Scheme.

- Monthly Incentive Schemes for writing letters in Hindi, Registers in Hindi, Notings in Hindi and Dictation in Hindi continued during the period in HO and all the Projects.

19.5 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.

19.6 MECON Ltd.

MECON is implementing the Official Language Policy of Government of India in its official work. It 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 under the Chairmanship of CMD. Hindi workshops are being organised regularly for the employees. MECON is an important member of Town Official Language Implementation Committee, Ranchi and actively participates in all the programmes.

19.7 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-2022” were held.

19.8 KIOCL Ltd.

Rajbhasha Department scheduled Official Language Implementation Committee meetings, organised workshops and conducted Official Language inspections as per targets of the Annual Program, 2022-23 of Department of Official Language (Ministry of Home Affairs).

Rajbhasha Department organised various Hindi competitions during Hindi Pakhwada, 2022 in which all groups of employees participated. With proactive approach for doing maximum work in Hindi total 96 employees from Bengaluru and 32 employees from Mangaluru marked their presence in the Hindi Pakhawada competitions. Incentive scheme for original work in Hindi has been implemented in the organisation and total 41 employees were rewarded with cash prizes this year.

KIOCL office was inspected by third Sub Committee of Committee of Parliament on Official Language in November 2022. In June 2022 KIOCL plant office at Mangalore was inspected by Regional Implementation Office, Official Language Department, Ministry of Home Affairs and Vizag office was inspected by Ministry of Steel.

CHAPTER-XX

EMPOWERMENT OF WOMEN

20.1 Ministry of Steel

As on December 31, 2022, 32 women are employed in the Ministry of Steel which constitutes 17.58% of the total manpower of 182.

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 are 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, 2022 to December 31, 2022.

20.2 Steel Authority of India Ltd. (SAIL)

As on 01.12.2022, SAIL has 3,684 women which is 6.13% of the total manpower. 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, placement and career growth.

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.

20.3 Rashtriya Ispat Nigam Ltd. (RINL)

In RINL, women employees constitute 3.40 % of its total manpower. About 6.59 % of the executives and 1.85% 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. 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.

20.4 NMDC Ltd.

NMDC Limited employs 364 women employees which constitute about 6.4% of its total manpower. The company provides equal opportunities for the sexes at all levels, be it selection, recruitment, placement or promotion.

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.

20.5 MOIL Ltd.

MOIL has 808 women employees which constitute 14.26% of its total workforce. As per the provisions of The Sexual Harassment of Women at Work Place (Prevention, Prohibition & Redressal) Act, 2013, a Prevention of Sexual Harassment Committee has been set up in the Company to deal with the cases received under Sexual Harassment. The names of the Committee Members have been uploaded on Company's web site. i.e.www.moil.nic.in. Mahila Mandals are working effectively at all the Mines of the Company. Various cultural, social, educative and community activities, such as adult education, blood donation camps, eye camps, family planning etc. are being organized regularly, mostly for the benefit of women residing in the remote mine areas.

20.6 MECON Ltd.

MECON Limited employs 101 women employees which constitute about 9.3% of its total manpower. 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 the HR Department from time to time.

20.7 MSTC Ltd.

MSTC Limited employs 50 women employees which constitute about 16.5% of its total manpower. MSTC is a Corporate Life Member of Forum of Women in Public Sector (WIPS). Internal Complaints Committees constituted in all the offices of MSTC, have been functioning successfully. Periodical meetings and Complaint redressal, awareness programs, etc. are also duly conducted by the Company.

MSTC strives to eliminate sexual harassment at workplace. To provide a safe working environment and to improve participation of female employees, the Company has the policy

for prevention, prohibition and redressal of such offensive acts. The policy was implemented with the requirements of The Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 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.

20.8 KIOCL Ltd.

As on 31.12.2022, total number of women employees is 23 which are 3.5% of total manpower.

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

In compliance to the provisions/requirements under the sexual harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013, Internal complaints committees have been 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.

CHAPTER-XXI

CORPORATE SOCIAL RESPONSIBILITY

21.1 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 2022-23, 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.

21.2 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, 4 Independent Directors and headed by one of the Independent Directors 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 as well as uploaded on the Company's webpage.

Major CSR initiatives undertaken:

Health and Nutrition : SAIL's extensive and specialized Healthcare Infrastructure provided specialized and basic healthcare to nearly 177 Lakh villagers living in the vicinities during the period 2011-2022. 24 Primary Health centers at Plants and Mines provided free medical care and medicines to over 1,25,000 patients, including 11,300 approx Covid-19 patients, regular Health Camps and 5 Mobile Medical Vans extended healthcare to approx 64,500 villagers at their doorsteps in the peripheral areas. SAIL, in association with Akshya Patra Foundation, is providing Mid-day meals and dry ration kits to around 63,000 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. 19 Special Schools (Kalyan and Mukul Vidyalayas) are benefiting around 4865 BPL category students with free facilities, viz. education, mid-day meals, uniform, shoes, text books, etc. Over 441 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 100 school students are awarded annual scholarships.

Computer cum Library Centre at Dumerta High School

Women Empowerment and Sustainable Income Generation: Vocational and skill development trainings targeted towards sustainable income generation were imparted to 223 local youths and 1306 women in various skills.

Community Development under CSR

Skill Development: About 418 rural youths have been sponsored for ITI trainings at ITIs 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. SAIL has supported setting up and operation of 100 KW Capacity Solar Power Plant at Jari, Gumla in Jharkhand.

Support to Divyangs (Differently Abled) and Senior Citizens: Divyang (children/people) are facilitated with tricycle, motorized vehicles, calipers, hearing aids, artificial limbs, etc. SAIL supports centers like 'Schools for blind, deaf and mentally challenged children' and 'Home and Hope' Rourkela, 'Ashalata Kendra' Bokaro, 'Handicapped Oriented Education Program' and 'Durgapur Handicapped Happy Home' Durgapur, and 'Cheshire Home' Burnpur. Old Age Homes are being supported at different Plant townships like 'Siyan Sadan' Bhilai, 'Acharya Dham' Durgapur and 'Sr. Citizens' Home' Rourkela, etc.

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.

Development of Aspirational Districts: SAIL has undertaken CSR activities in 6 Aspirational Districts, viz. Kanker, Narayanpur and Rajnandgaon in Chhattisgarh and West Singhbhum, Bokaro and Ranchi in Jharkhand.

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 being run and maintained regularly.

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, Meeting room etc. for the inhabitants.

21.3 Rashtriya Ispat Nigam Limited (RINL)

RINL has a separate Department for CSR since 2007. RINL had formulated its CSR Policy of its own in 2006 itself. Subsequently, 'RINL CSR and Sustainability policy' has been formulated in line with the Companies Act 2013, CSR Rules 2014 and the DPE guidelines. CSR initiatives in RINL are taken up as per CSR policy of RINL which is approved by the RINL Board. The Board level CSR Committee comprising of 3 Functional Directors, 2 Independent Directors and headed by one of the Independent Directors is in place. In terms of RINL CSR and Sustainability Policy, the Board Sub-Committee (CSR Committee) recommends to the RINL Board for approval of the budget and the broad CSR activities to be carried out. CSR initiatives are taken up through a process which involves projects identification through baseline survey and/or on the basis of proposals received from various voluntary agencies having relevance to societal needs, outlay, beneficiaries, reach and coverage, as stipulated under Schedule VII of the Companies Act, 2013, as amended from time to time.

Implementation and Monitoring of the CSR activities are reviewed by the Board Sub Committee. CSR Department exercises constant vigil over the implementation of CSR initiatives by monitoring the projects regularly so as to achieve targets by scheduled dates.

Major CSR initiatives undertaken:

Health and Nutrition:

- Providing nutritious food is being provided to 1200 school children belonging to economically weaker sections, in the form of daily Mid-day meals. Provided infrastructural support to the centralized kitchen of The Akshaya Patra Foundation.
- Provided wheel chairs, tricycles, adaptive devices to Spinal Cord Injury (SCI) patients and Prosthetics, Orthotics, Spine braces, Callipers etc. for amputees to enable them to lead a better life by limiting their disability.
- Promoting preventive healthcare through preventive vaccination and screening for early detection of cancer for 160 Mother-Daughter pairs.

Education:

- Extended free and quality education to around 1600 children belonging to Below Poverty Line (BPL) families every year from the surrounding villages of Plant and Mines.

- **Arunodaya Special School:** Free education including vocational training and therapy was provided to around 100 differently abled children from the surrounding villages every year through Arunodaya Special School which was constructed by RINL in the Township. RINL provided educational infrastructure viz. Dual Desk Benches, RO Plant, electrical wiring of class rooms, Fans, Tube lights etc. to the Upper Primary School at Aihar Village and Pradhamik Vidyalaya at Taudhakpur near Raebareli, UP. Also, RINL has provided around 1000 three-seater dual desks to Government Schools through Government ITI, Gajuwaka. It also provided Special Repair Works to the College buildings, established Computer labs, additional class rooms, compound wall etc.

Skill Enhancement: 'Project Saksham': Facilitated Vocational training programmes in CAD/CAM courses, Mobile repairing, LMV driving, House Wiring, Cutting and Tailoring, Designing and Fabric Painting for beneficiaries in Rehabilitation colonies and agency areas.

Rural Development: Activities for common welfare of Society and Communities in and around Plant and Mines, CC Roads, Toilet blocks construction, and other development works at Madharam and Garbham Mines and Forged Wheel Plant have been undertaken.

Senior Citizen care: Support to about 100 abandoned and destitute elderly residents for one year at Old Age Home situated in Digha, Patna, Bihar has been undertaken.

Sanitation and Drinking water: A unique project named "Jaladhara" for the purpose of permanent solution to the acute problem of drinking water in tribal areas of Visakhapatnam district has been undertaken.

21.4 NMDC Ltd.

NMDC has framed a broad based and transparent Policy document with respect to its CSR Programme. The Company complies with the Companies Act 2013 and the CSR Rules 2014 framed there under and is guided by CSR Guidelines issued by DPE from time to time. The Company has formulated its CSR Policy in September 2008 and the said Policy has been revised in compliance with the provisions of the Companies Act, 2013 and the Rules made there-under, as amended from time to time.

The CSR Activities are mainly implemented directly by NMDC, through NGOs/Voluntary Organizations/Trusts or through concerned State/District Authorities/Panchayati Raj Institutions at District/Block/Village level, etc. Implementation, monitoring is done in project mode with continuous feedback mechanism, for mid-course correction in implementation, whenever required.

NMDC regularly undertakes impact assessment of its CSR initiatives. Link to the latest impact assessment report of CSR activities is as follows: https://www.nmdc.co.in/csr/csr-activities/impact-assessment.

Major CSR initiatives undertaken:

Health and Nutrition:

- **Free treatment at Project Hospitals -** providing free medical treatment to tribals. These hospitals have catered to approx. 125587 out-patients and 27429 local tribals in-patients.

- **Hospital on Wheels (HoW) –** providing health services in remote villages, operating 13 Vans covering 165 villages in Chhattisgarh and Karnataka benefitting around 1.5 lakh people.

- NMDC assisted the State Government in setting up of a Burns ward in Maharani Hospital (District Hospital), Jagdalpur, Bastar Distt., Chhatisgarh.

- In partnership with Akshaya Patra Foundation, NMDC has been supporting mid-day meal scheme for providing nutritious and wholesome meal to the students during school hours. The scheme covers 8000 students rural school children in and around Donimalai Project in Karnataka.

Education:

- The Scholarship Scheme "NMDC Shiksha Sahayog Yojana" is to help ST/SC students continue education. It is in operation since 2008 and up to 18000 scholarships are awarded every year.

- NMDC is supporting a residential school at Nagarnar, Bastar for providing quality education to local tribal children.

- **Balika Shiksha Yojana :** Under this initiative, tribal girl students from Bastar Division are sponsored for professional Nursing Courses.

- **Education City:** An island of educational facilities with institutions ranging from Primary to Professional institutes in a single campus with an objective to help local children get quality education. NMDC has provided support to Government of Chhattisgarh for construction and operation of various educational facilities within Education City,

Dantewada to help local children who face challenges like geographic terrain coupled with prevailing law and order issues in continuing education, get quality professional and technical education.

Skill Development:

- Health sector related skills were imparted viz. Phlebotomy/Blood collection/OT technician to youth from NMDC projects in Bailadila, Chhatisgarh and 28 trainees placed in gainful employment.
- Two ITI's at Bhansi (Dantewada Dist.) and Nagarnar (Bastar Dist.) and Polytechnic College at Dantewada are running successfully. 274 students of ITI and 227 students of polytechnic got placed in offers in various companies through campus selection.
- Initiative of Orchid Development has been taken up to boost income of around 600 local farmers in Dantewada district, where technical knowhow and inputs along with fruit bearing plants are provided.
- **In partnership with the State Authorities of Chhattisgarh–** a milk dairy farm at Chalki Para in Dantewada District has been established under Kamdhenu Programme.
- **Mehrar Cho Maan -** Awareness on menstrual hygiene and promote usage of sanitary napkins. 8 Local Self-help group (SHG's) trained to make sanitary napkins and distribute among local women in Dantewada District.

Drinking Water: Group water supply scheme- safe and potable drinking water to nearby villages in Dantewada district, RO based drinking water facilities in villages around Donimalai Iron Ore Mine (DIOM) Donimalai Complex, Karnataka and pond deepening works and providing drinking water facility to villages around Diamond Mining Project (DMP) Panna, Madhya Pradesh.

21.5 MOIL Ltd.

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.

Major CSR initiatives undertaken:

- MOIL has constructed a CBSE registered school at Sitasaongi in Bhandara Distrct 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) in its education and skill development initiative.

- MOIL has sponsored 15 Girls (from economically weaker section) for perusing Bachelor's Degree Course in Nursing and General Nursing and Mid-course in association with Apollo College of Nursing Hyderabad.

- Skill Development Programme Training on heavy Earth Moving Vehicles/Machinery Operations to Women Candidates from adjoining areas of companies mines, through accredited training partners of National Skill Development Council, Government of India.

- The Company has engaged with professional agency namely BAIF Institute for Sustainability and Livelihood Development, (BISLD). Major areas of developmental activities are 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, Quality of life, etc.

- Provided one ambulance each to Public Health Centre, Block Paraswada, District Balaghat (M.P), and Government District Hospital at Bhopal and Panna (Madhya Pradesh).

- Infrastructural development works like Development of Play Ground including Construction of rooms in Central School, Balaghat, Construction of Boundary Wall Government Women's Polytechnic, Balaghat, construction of two Community halls at district Puri (Odisha).

21.6 MECON Ltd.

The CSR policy of MECON is in accordance with the provisions of the Companies Act, 2013 and DPE guidelines. CSR projects are approved by the Board based on the recommendation of the CSR Committee. The "CSR Committee" and the Nodal Officer's team of officers/ employees, through In-charge, CSR Cell constitutes the two-tier organizational structure to steer the CSR agenda of the Company. The allocation and expenditure of CSR fund is as per the Companies Act, 2013. The CSR plans are formulated by "CSR Committee" and approved by Board of Directors as per the provision of Companies Act, 2013. The CSR activities of the Company are as per Schedule-VII to the Companies Act, 2013, with special attention to the development of weaker / marginalized/ under privileged sections of the society including SC / ST / OBC / Minorities, women and children, old and aged, physically challenged etc. The CSR activities/projects are implemented by MECON itself and are, as far as possible, implemented in Project mode. All the CSR activities are monitored regularly by the Nodal Officer (CSR) and In-Charge, CSR Cell.

Major CSR initiatives undertaken:

- Renovation of Dining Hall-cum-Candle Making Section and Printing Section at Cheshire Homes India, Ranchi (A Home for Physically challenged Persons – Divyangs).

- Running of 7 Community Education Centres for the under privileged Children in proper and near Ranchi and in Adopted Village of Khunti district of Jharkhand.
- 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 50.
- Construction of Toilet Complex in Adopted Village Parsa Toli, Pancha, Block- Bundu, Dist.- Ranchi.
- Facilitated cataract surgery of Villagers of Adopted village- Sungi, Dist.-Khunti and Rupru, Dist.- Ranchi in MECON's Township Hospital – Ispat Hospital, Ranchi.
- Safe Drinking Water Facility constructed at Adarsh Home (Old Age Home) of M/s Vihar Samaj Kalyan Sansthan at Vill.-Kulgu, Block- Nagri, District- Ranchi.
- "Poshan Abhiyan" is being carried out for poor/down-trodden/needy Children of Adopted Villages of MECON in Ranchi and Khunti districts of Jharkhand and for the Outreach Children of MECON's Township School, Ranchi.

21.7 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 teams of officials.

Major CSR initiatives undertaken:

- Provided medical equipments to Ramakrishna Mission at Agartala Tripura and Bharat Sevashram Sangha Hospital at Kolkata West Bengal.
- Provided mobile medical dispensary van with advanced life support to Viswa Kalyan Seva Trust at East Singhbhum, Jharkhand.
- Provided equipment and instrument for Institute of Child Health Trust at Kolkata, West Bengal.
- Provided financial support for equipment and instrument for Medical Research Foundation at Kolkata, West Bengal.
- Provided equipment and ambulance for Jankalyan Seva Sanstha at Nandurbar, Maharashtra.
- Provided equipment/instrument for health and delivery points/sub centers of Sirsiya block of Shrawasti district for Chief Development Office, Shrawasti at Shrawasti, Uttar Pradesh.

- Repair and Renovation of school building of Utkramita Madhya Vidyalaya for Gram Kalyan at Giridih, Jharkhand and Nabo Prathamic Vidyalaya at Ramgarh, Jharkhand.
- Construction of a training centre for the unemployed youth and marginalized women in north 24 parganas, West Bengal for holy mission for childrens welfare and rural development at North 24 Parganas, West Bengal.
- Renovation of school building of Madhupur Madhyamik Siksha Kendra at Block Barasat-1, North 24 Parganas for Mother Child Survival Development Revolution at North 24 Parganas, West Bengal.
- Construction of classroom and kitchen cum dining space at Jidhra F.P. School, S. Dinajpur for Dakshin Dinajpur Deshbandhu rural development society at South Dinajpur, West Bengal.

21.8 KIOCL Ltd.

KIOCL has Board approved CSR Policy which is prepared in line with Schedule VII of Companies Act 2013. Activities mandated under Schedule-VII of the Companies Act, 2013 are undertaken. KIOCL identifies CSR projects mainly in local areas of the Company by internal CSR committees constituted in this regard which is headed by senior level officer as Nodal officer. With a view to have a baseline data and to ascertain basic needs/requirements of the people and the area, the Internal Committee ensures conducting of internal survey, interact with the Organizations/Agencies for finalization of projects etc. on the basis of which requisite projects/activities are identified for implementation. After the identification of Projects/activities, the Internal Committee prepares the Draft Annual Plan keeping in view the availability of funds and put up the same to the Board level CSR Committee. The committee scrutinizes all such projects and activities as received from various quarters for financial assistance and put up the same to the Board level CSR Committee with its comments/ recommendations to the Board. Based on the approval of the Board, internal CSR committees execute and implement the project. The Board level CSR Committee periodically reviews the progress of CSR projects.

Major CSR initiatives undertaken:

- Provided financial Assistance for organizing Tribal Festival in Ram Nagar, Mandla District, Madhya Pradesh.
- Provided financial assistance for providing aluminum partition wall and granite platform to Microbiology Laboratory at Sir C.V. Raman General Hospital, Bengaluru.
- Provided drinking water facility to Anganwadi Centres in Yadgir District – Aspirational District.
- Provided financial assistance to set up Vocational Training Centre in LBJP Inter College, Tilhar, U.P. to provide Vocational Training for Skill Development to students and local area youth.
- Provided Financial Assistance for construction of Red Cross Centenary Building Project, Mangaluru.

- Provided Financial Assistance for Kidney Transplant of Patient belonging to poor family at Narayana Hrudayalaya Hospital, Bengaluru.
- Provided Laboratory Equipments and furniture's to Girls PU College, Sandur, Bellary District.
- Provided furniture's (Bench, Desk, Table, Notice Board and Cup-boards etc.) to Government High School, Machina, Belthangady, Mangaluru, Government Residential School for Tribes, Hornadu and DK ZP Hr. Primary School, Kodange, Bantwal Taluk, Dakshina Kannada.
- Provided financial Assistance towards providing food shelter, clothing, education and medicine to children accommodated at Mangala Seva Samithi, Orphanage (Bala Samrakshna Kendra), Mangaluru.
- Provided financial Assistance for procuring 5 Dialysis Unit at Wenlock Hospital, as per the request from Dy. Commissioner, Dakshina Kannada District, Mangaluru.
- Provided pure Drinking Water facility to Government High School, Near APMC, Sandur.
- Provided 300 MA CR System for Community Health Centre, Vamadapadavu (X-Ray Machine) as per request received from Health and Family Welfare Department.
- Provided scholarship to meritorious students studying in Government Schools at Mangaluru.

CHAPTER-XXII

IMPLEMENTATION OF RIGHT TO INFORMATION ACT, 2005

22.1 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 aims to protect the citizens' Right to Information to enable every citizen to secure access to the information from the public authorities.

22.2 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 & Training (DoPT) and the Ministry of Steel has been a part of RTI online web portal w.e.f 25.06.2013. From 1st April 2022 to 31st December 2022, Ministry of Steel has received 150 RTI Applications through online mode and 126 RTI Applications through offline mode, which were duly disposed off. Besides, in compliance with RTI provisions, as communicated by Central Information Commission on 29.07.2022, 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 01.01.2022 to 31.12.2022 is as under:

Public Authority	Application Received during 01.01.2022 to 31.12.2022	Application Disposed of during 01.01.2022 to 31.12.2022	Application Pending on 31.12.2022
Ministry of Steel	276	276	0
SAIL	3601	3069	532
RINL	422	386	36

Public Authority	Application Received during 01.01.2022 to 31.12.2022	Application Disposed of during 01.01.2022 to 31.12.2022	Application Pending on 31.12.2022
NMDC Ltd.	435	413	22
MOIL Ltd.	123	105	18
MECON Ltd.	156	152	4
KIOCL Ltd.	45	45	0
MSTC Ltd.	85	79	6

22.3 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.

22.4 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 on the CIC portal.

22.5 NMDC Ltd.

NMDC has published on its website, www.nmdc.co.in, information under Section 4(1)(b) of the RTI Act 2005. Details of Public Information Officer and Appellate Authority are being updated regularly for the information of the public. Annual reports of the Company which gives lot of information on its working are widely circulated and also available in NMDC's website. Further information is disseminated through press conference, press handouts etc. NMDC maintains all its records in a transparent manner. Information is given to the maximum extent in the form in which it is asked for and in the local language as well, when needed.

22.6 MOIL Ltd.

MOIL has appointed CPIOs at the Corporate Office and PIOs / APIOs have also been appointed in all its Mines. Jt. General Manager (Personnel) had been appointed/designated as Appellate Authority under the Act. The names of all the PIOs / APIOs and the Appellate Authority have also been hosted in Company's website www.moil.nic.in. The information in respect of company, its employees etc. has been prepared under 17 heads as prescribed in Section 4(1) (b) of the RTI Act, and the same has been hosted in Company's portal. MOIL has been submitting necessary information and returns to the prescribed authorities and updating the same regularly.

The Company has also hosted/updated in Company's website as much information suo-moto at regular intervals for the public, so that public has minimum resort to use the various provisions under the RTI Act to obtain information. For the awareness of employees at large, seminars have been organized to make them understand the importance of RTI Act in the present scenario and highlighted the provisions of the Act.

22.7 MECON Ltd.

All the relevant manuals pertaining to RTI Act, 2005 have been hosted on "MECON's Website www.meconlimited.co.in w.e.f. 19th September, 2005. A Central Public Information Officer (PIO) and the 1st Appellate Authority have been nominated by MECON at its Headquarters and Assistant Public Information Officers (APIOs) have been nominated at various Regional and Site Offices. The queries coming to MECON from the public are being attended to by these nominated officials and replied back by the Central Public Information Officer within the stipulated time period. A Transparency Officer has also been appointed in accordance with RTI Act to ensure smooth and effective implementation of RTI Act.

22.8 MSTC Ltd.

Provisions of RTI Act 2005 were complied with for processing the RTI applications and appeals received in all offices of MSTC. There are one Transparency Officer, one First Appellate Authority, one CPIO and one Acting CPIO, one Nodal Officer in MSTC, Head office and every Region/Branch has one PIO for effectively processing the RTI applications received at various locations of the Company. All quarterly reports have been submitted on-line and have been uploaded on CIC site.

22.9 KIOCL Ltd.

KIOCL has appointed PIOs at the Corporate Office and PIOs/APIOs have also been appointed in all its Plants/other Units. Executives at the Top levels has been appointed/ designated as Appellate Authority under the Act. The names of all the PIOs/APIOs and the Appellate Authority has also been hosted on KIOCL's website: www.kioclltd.in. The obligation of the preparation of the manual prescribed in clause (b) subsection (1) Section (4) has been complied with and these have also been hosted on KIOCL's portal within the stipulated time frame given under the Act and the same is being reviewed and updated at regular intervals. KIOCL has been updating the requisite information on periodical basis. The monthly return is being sent to concerned authorities regularly. The system of submission of quarterly return to the CIC has been introduced.

(Refer Chapter-II, Para 2.1)

ANNEXURE - I

MINISTRY OF STEEL (ISPAT MANTRALAYA)[1]

1. Planning, development and facilitation of setting up of iron and steel production facilities including electric arc furnace (EAF) units, induction furnace (IF) units, processing facilities like re-rollers, flat products (hot/cold rolling units), coating units, wire drawing units and steel scrap processing. [2]

2. Development of iron ore mines in the public sector and other ore mines (manganese ore, chrome ore, limestone, sillimanite, kayanite, 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[3]

   i. Steel Authority of India Limited (SAIL);

   ii. Rashtriya Ispat Nigam Limited (RINL);

   iii. Kudremukh Iron Ore Company Limited (KIOCL);

   iv. Manganese Ore (India) Limited (MOIL);

   v. National Mineral Development Corporation Limited (NMDC);

   vi. Metallurgical and Engineering Consultants (India) Limited (MECON);

   vii. Sponge Iron India Limited (SIIL);

   viii. OMITTED.[4]

   ix. Bharat Refractories Limited (BRL);

   x. Metal Scrap Trade Corporation (MSTC);

   xi. Ferro Scrap Nigam Limited; and

   xii. Bird Group of Companies.

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1. Modified vide Amendment series no. 238 dated 23.05.1998 and 243 dated 15.10.1999
2. Modified vide Amendment series no.306 dated 31.07.2014 (earlier modified vide Amendment series no. 281 dated 01.09.2005).
3. Modified vide Amendment series no.286 dated 01.06.2006.
4. Omitted vide Amendment series no.337 dated 06.12.2017.

(Refer Chapter-II, Para 2.1)

ANNEXURE - II

MINISTER IN CHARGE AND OFFICER IN THE MINISTRY OF STEEL

(Down to Deputy Secretary level)

(As on January 31st, 2023)

Minister of Steel	Shri Jyotiraditya M Scindia
Minister of State for Steel	Shri Faggan Singh Kulaste
Secretary	Shri Nagendra Nath Sinha
Additional Secretary & Financial Adviser	Smt. Sukriti Likhi
Additional Secretary	Smt. Ruchika Chaudhry Govil
Joint Secretaries	Shri Abhijit Narendra Shri Sanjay Roy
Deputy Director General	Smt. Swapna Bhattacharya
Economic Adviser	Shri Ashwini Kumar
Chief Controller of Accounts	Shri Sakesh Prasad Singh
Directors	Shri Neeraj Agarwal Smt. Neha Verma Shri Arun Kumar Kailoo Shri Devidatta Satapathy
Additional Industrial Adviser	Shri Parmjeet Singh
Deputy Secretary	Shri Gopalakrishnan Ganesan Shri Ashish Sharma Shri S K Mohanty Shri G Sarathy Raja Shri Amit Pankaj Shri Subhash Kumar Shri Ajit Kumar Sah

(Refer Chapter-III, Para 3.4)

ANNEXURE - III

PRODUCTION OF IRON + STEEL

('000 tonne)

SL. NO.	ITEM / PRODUCER	2018	2019	2020	2021	2022(P)
	PRODUCTION					
I.	**CRUDE STEEL:**					
	SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL					
	Oxygen Route	46,059	46,764	42,878	50,952	55,360
	E.A.F. Units	20,513	21,889	21,190	22,165	21,321
	Other Producers					
	Oxygen Route	2,949	1,909	1,774	2,046	2,065
	E.A.F. Units	7,773	6,741	6,974	8,417	7,657
	Induction Furnaces	31,955	34,041	27,439	34,622	38,316
	TOTAL (Crude Steel)	**1,09,249**	**1,11,344**	**1,00,255**	**1,18,202**	**1,24,719**
	% share of Other Producers	39.1%	38.3%	36.1%	38.1%	38.5%
II.	**PIG IRON :**					
	SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL	1,358	1,435	1,250	1,582	1,233
	Other Producers	4,891	4,548	3,298	4,272	5,050
	TOTAL (Pig Iron)	**6,249**	**5,983**	**4,548**	**5,854**	**6,283**
	% share of Other Producers	78.3%	76.0%	72.5%	73.0%	80.4%
III.	**SPONGE IRON :**					
	Gas Based	7,052	6,699	6,074	8,402	8,123
	Coal Based	27,161	30,120	27,519	30,637	33,878
	TOTAL (Sponge Iron)	**34,213**	**36,819**	**33,593**	**39,039**	**42,001**
	% share by Process (Coal Based)	79.4%	81.8%	81.9%	78.5%	80.7%
IV.	**FINISHED STEEL (Production) (Alloy/Non-Alloy) :**					
	SAIL, TSL Group, RINL, AM/NS, JSWL, JSPL	59,154	61,450	54,659	63,991	68,179
	Other Producers	41,420	42,612	37,571	47,962	50,536
	TOTAL (Finished steel)	**1,00,574**	**1,04,062**	**92,230**	**1,11,953**	**1,18,715**
	% share of Other Producers	41.2%	40.9%	40.7%	42.8%	42.6%

P stands for Provisional figure (January-December, 2022);
Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - IV

PRODUCTION OF CRUDE STEEL

('000 tonne)

Sl. No.	Producer	2018			2019			2020			2021			2022(P)		
		Working Capacity	Produc-tion	% Utili-sation	Working Capacity	Produc-tion	% Utili-sation	Working Cap-acity	Produc-tion	% Utili-sation	Working Cap-acity	Produc-tion	% Utili-sation	Working Capacity	Produc-tion	% Utili-sation
A.	**Public Sector Unit**															
1	SAIL	19,132	15,933	83	19,632	16,181	82	19,632	14,970	76	20,632	17,323	84	20,632	17,932	87
2	RINL	6,300	5,258	83	6,300	4,833	77	6,300	3,979	63	6,300	5,586	89	6,300	4,170	66
	Total Public Sector	**25,432**	**21,191**	**83**	**25,932**	**21,014**	**81**	**25,932**	**18,948**	**73**	**26,932**	**22,908**	**85**	**26,932**	**22,102**	**82**
B.	**Pvt. Sector Unit**															
3	Tata Steel Ltd.	19,400	3,053	86												
4	TSL Group		13,617		19,400	18,478	95	19,400	17,287	89	20,600	18,911	92	20,600	20,101	98
5	AM/NS (Essar Steel Ltd.)	10,000	6,793	68	10,000	7,138	71	10,000	6,616	66	9,600	7,389	77	9,600	6,651	69
6	JINDAL STEEL AND POWER LTD.	8,600	5,005	58	8,600	5,936	69	8,600	6,493	75	8,100	7,336	91	8,100	7,439	92
7	JSW Steel Ltd.	18,000	16,914	94	18,000	16,086	89	18,000	14,725	82	23,000	16,572	72	23,000	20,387	89
8	OTHER BOF	4077	2,949	72	4,077	1,909	47	4,077	1,774	44	3,177	2,046	64	3,177	2,065	65
9	OTHER EAF	12,750	7,773	61	11,794	6,741	57	11,640	6,974	60	11,614	8,417	72	11,525	7,657	66
10	OTHER IF	43,977	31,955	73	44,496	34,041	77	46,266	27,439	59	51,040	34,622	68	54,651	38,316	70
	Total Private Sector	**1,16,804**	**88,059**	**75**	**1,16,367**	**90,329**	**78**	**1,17,983**	**81,308**	**69**	**1,27,131**	**95,293**	**75**	**1,30,653**	**1,02,618**	**79**
	Total (Public Sector + Private Sector)	**1,42,236**	**1,09,250**	**77**	**1,42,299**	**1,11,343**	**78**	**1,43,915**	**1,00,256**	**70**	**1,54,063**	**1,18,201**	**77**	**1,57,585**	**1,24,720**	**79**
	Share of Public Sector (%)	**17.9**	**19.4**		**18.2**	**18.9**		**18.0**	**18.9**		**17.5**	**19.4**		**17.1**	**17.7**	

Note:

1. TSL Group includes Bhushan Steel Limited, Tata Steel Long Products Limited & BMW- Gamharia (Jharkhand) along with TSL plants in Jamshedpur & Kalinganagar. The change from Tata Steel Ltd. To TSL Group was done from April 2018 onward for statistical purposes.
2. P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - V

PRODUCTION OF CRUDE STEEL

(BY Route)

('000 tonne)

PROCESS ROUTE	2018	2019	2020	2021	2022(P)
OXYGEN ROUTE					
SAIL	15,719	15,948	14,839	17,117	17,705
RINL	5,258	4,833	3,979	5,586	4,170
Tata Steel Ltd.					
TSL Group	14,928	16,305	15,235	16,669	17,817
JSW Steel Ltd.	10,154	9,678	8,826	9,742	13,016
Jindal Steel & Power Ltd.				1,838	2,652
Other Oxygen Route	2,949	1,909	1,774	2,046	2,065
TOTAL OXYGEN ROUTE : (A)	**49,008**	**48,673**	**44,653**	**52,998**	**57,425**
ELECTRIC ROUTE ELECTRIC ARC FURNACE					
SAIL	214	233	130	206	227
TSL Group	1,742	2,174	2,051	2,242	2,285
AM/NS (Essar Steel Ltd.)	6,793	7,138	6,616	7,389	6,651
JSW Steel Ltd.	6,760	6,408	5,900	6,830	7,371
Jindal Steel & Power Ltd.	5,005	5,936	6,493	5,497	4,787
Lloyds Steel Ltd.	518	332	489	640	560
Jindal Stainless Ltd.	1,542	1,593	1,223	1,822	1,639
Bhushan Steel Ltd.	242				
Bhushan Power & Steel Ltd.	2,677	2,798	3,439	3,115	2,696
Other Electric Arc Furnace	2,794	2,018	1,824	2,841	2,762
TOTAL ELECTRIC ARC FURNACE :	**28,287**	**28,630**	**28,164**	**30,582**	**28,978**
ELECTRIC INDUCTION FURNACE	**31,955**	**34,041**	**27,439**	**34,622**	**38,316**
TOTAL ELECTRIC ROUTE :	**60,242**	**62,671**	**55,603**	**65,204**	**67,295**
GRAND TOTAL :	**1,09,250**	**1,11,344**	**1,00,256**	**1,18,201**	**1,24,720**

Note:

1. TSL Group includes Bhushan Steel Limited, Tata Steel Long Products Limited & BMW-Gamharia (Jharkhand) along with TSL plants in Jamshedpur & Kalinganagar.
2. P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - VI

PRODUCTION OF HOT METAL

('000 tonne)

PLANTS	2018	2019	2020	2021	2022(P)
STEEL AUTHORITY OF INDIA LTD.	17,080	17,509	16,203	18,793	19,077
RASHTRIYA ISPAT NIGAM LTD.	5,773	5,278	4,364	6,107	4,452
TATA STEEL LTD.	3,274				
TSL Group	14,232	18,946	17,726	19,460	19,722
AM/NS(Essar Steel Ltd.)	3,102	3,620	3,334	3,460	3,214
JSW STEEL LTD.	15,549	15,363	14,220	15,816	19,692
JINDAL STEEL AND POWER LTD.	4,408	5,721	5,509	6,020	6,121
(A) SUB TOTAL	**63,418**	**66,437**	**61,356**	**69,655**	**72,278**
(B) OTHER PRODUCERS	**9,192**	**7,720**	**6,426**	**7,972**	**7,585**
TOTAL (A+B)	**72,610**	**74,156**	**67,782**	**77,627**	**79,863**
% SHARE OF OTHER PRODUCERS	**12.7**	**10.4**	**9.5**	**10.3**	**9.5**

Note:

1. TSL Group includes Bhushan Steel Limited, Tata Steel Long Products Limited & BMW- Gamharia(Jharkhand) along with TSL plants in Jamshedpur & Kalinganagar.
2. P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - VII

PRODUCTION OF PIG IRON

('000 tonne)

Public Sector Unit	2018	2019	2020	2021	2022(P)
Steel Authority of India Ltd.	410	591	535	635	390
Rashtriya Ispat Nigam Ltd.	120	58	38	91	42
Total Public Sector	**530**	**649**	**573**	**726**	**432**
Private Sector Unit					
TSL Group	518	332	176	136	108
Jindal Steel and Power Ltd.	111	129	235	464	629
JSW Steel Ltd.	199	325	266	256	64
Other Private Unit	4,891	4,548	3,298	4,272	5,050
Total Private Sector	**5,719**	**5,334**	**3,975**	**5,128**	**5,851**
Total production (A+B)	**6,249**	**5,983**	**4,548**	**5,855**	**6,283**

Note:

1. TSL Group includes Bhushan Steel Limited, Tata Steel Long Products Limited & BMW-Gamharia (Jharkhand) along with TSL plants in Jamshedpur & Kalinganagar.
2. P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - VIII

PRODUCTION OF FINISHED STEEL

(Non-Alloy & Alloy Steel)

('000 tonne)

PLANTS	2018	2019	2020	2021	2022 (P)
STEEL AUTHORITY OF INDIA LTD.	12,546	12,437	11,024	13,428	14,904
RASHTRIYA ISPAT NIGAM LTD.	4,242	3,740	2,522	3,884	3,464
TATA STEEL LTD.	2,985				
TSL GROUP	13,544	18,479	16,723	18,621	19,122
AM/NS (ESSAR STEEL LTD.)	6,614	7,061	6,524	7,314	6,557
JSW STEEL LTD.	15,617	15,245	13,836	15,604	18,824
JINDAL STEEL AND POWER LTD.	3,606	4,488	4,030	5,140	5,308
SUB TOTAL (A) :	**59,154**	**61,450**	**54,659**	**63,991**	**68,179**
OTHER PRODUCERS (B)	41,420	42,612	37,571	47,962	50,536
TOTAL PRODUCTION (A+B)	**1,00,574**	**1,04,062**	**92,231**	**1,11,953**	**1,18,714**
% SHARE OF OTHERS	**41.2**	**40.9**	**40.7**	**42.8**	**42.6**

P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - IX

CATEGORYWISE PRODUCTION OF FINISHED STEEL

('000 tonne)

CATEGORY	2018			2019			2020			2021			2022 (P)		
	SAIL, RINL, TSL Group, AM/ NS, JSWL, JSPL	OTHERS	TOTAL	SAIL,RINL, TSL Group, AM/NS, JSWL, JSPL	OTHERS	TOTAL	SAIL, RINL, TSL Group, AM/NS, JSWL, JSPL	OTHERS	TOTAL	SAIL, RINL, TSL Group, AM/NS, JSWL, JSPL	OTHERS	TOTAL	SAIL, RINL, TSL Group, AM/NS, JSWL, JSPL	OTHERS	TOTAL
FINISHED STEEL (Non-Alloy)															
BARS & RODS	13,978	24,456	**38,434**	14,175	27,601	**41,776**	11,292	22,990	**34,282**	15,078	31,051	**46,129**	15,780	33,498	**49,278**
STRUCTURALS	2,366	5,552	**7,918**	2,244	5,358	**7,601**	1,662	4,768	**6,430**	2,129	5,220	**7,349**	2,495	5,525	**8,020**
RLY. MATERIALS	1,322	57	**1,379**	1,724	45	**1,769**	1,592	25	**1,617**	1,321	16	**1,336**	1,429	15	**1,444**
TOTAL (NON-FLAT)	**17,665**	**30,065**	47,731	**18,143**	**33,003**	51,145	**14,546**	**27,783**	42,329	**18,528**	**36,287**	54,814	**19,703**	**39,038**	58,741
PM PLATES	4,643	74	**4,717**	4,607	157	**4,764**	3,992	116	**4,108**	5,152	110	**5,261**	5,262	114	**5,376**
HR COIL/STRIP	35,514	5,685	**41,199**	37,632	5,085	**42,717**	35,048	5,767	**40,816**	38,978	5,859	**44,836**	40,976	4,850	**45,826**
TOTAL (FLAT)	**40,157**	**5,760**	45,916	**42,239**	**5,242**	47,480	**39,040**	**5,884**	44,924	**44,129**	**5,968**	50,098	**46,239**	**4,964**	51,202
TOTAL (Non-Alloy)	**57,822**	**35,825**	93,647	**60,381**	**38,245**	98,626	**53,587**	**33,667**	87,253	**62,657**	**42,255**	1,04,912	**65,942**	**44,002**	1,09,944
FINISHED STEEL (Alloy)															
NON-FLAT	1,161	2,612	**3,773**	945	1,716	**2,661**	747	1,874	**2,621**	1,072	2,835	**3,907**	1,297	2,872	**4,169**
FLAT	94	203	**297**	52	195	**247**	165	136	**302**	78	271	**349**	863	1,041	**1,904**
TOTAL (Alloy)	**1,255**	**2,815**	4,070	**997**	**1,911**	2,908	**913**	**2,010**	2,922	**1,149**	**3,107**	4,256	**2,160**	**3,913**	6,073
FINISHED STEEL (Stainless)															
NON-FLAT	0	1,027	**1,027**	0	676	**676**	0	517	**517**	0	721	**721**	0	789	**789**
FLAT	77	1,753	**1,830**	72	1,780	**1,852**	160	1,378	**1,538**	185	1,879	**2,064**	77	1,831	**1,908**
TOTAL (Stainless)	**77**	**2,780**	2,857	**72**	**2,457**	2,529	**160**	**1,895**	2,055	**185**	**2,600**	2,785	**77**	**2,620**	**2,697**
FINISHED STEEL (Non-Alloy + Alloy + Stainless)															
TOTAL(NON-FLAT)	**18,826**	**33,704**	**52,530**	**19,088**	**35,395**	54,482	**15,294**	**30,173**	**45,467**	**19,599**	**39,843**	**59,442**	**21,000**	**42,699**	**63,699**
TOTAL(FLAT)	**40,328**	**7,716**	**48,044**	**42,363**	**7,217**	49,580	**39,366**	**7,398**	**46,764**	**44,392**	**8,119**	**52,510**	**47,179**	**7,836**	**55,015**
TOTAL Finished Steel	**59,154**	**41,420**	**1,00,574**	**61,450**	**42,612**	**1,04,062**	**54,659**	**37,571**	**92,231**	**63,991**	**47,962**	**1,11,953**	**68,179**	**50,535**	**1,11,953**

P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE - X

CATEGORY-WISE IMPORT OF IRON & STEEL

('000 tonne)

Sl. No.	CATEGORY	2018	2019	2020	2021	2022 (P)
I	**Semi-finished Steel(Non-Alloy)**					
	Semis	390	164	134	31	202
	Re-rollable Scrap	429	287	147	123	219
	TOTAL	**819**	**450**	**281**	**154**	**421**
II	**Finished Steel(Non-Alloy)**					
	Non-Flat					
	Bars & Rods	286	317	134	117	90
	Structurals	44	36	35	17	10
	Rly.Materials	42	68	54	80	63
	TOTAL Non-Flat	**371**	**422**	**222**	**213**	**163**
	Flat					
	Plates	478	344	371	233	232
	HR Sheets	12	6	1	0	0
	HR Coils/Skelp/Strips	1,750	1,913	804	855	1,207
	CR Coils/Sheets	478	465	201	295	355
	GP/GC Sheets	1,232	949	726	799	823
	Elec.Sheets	654	621	421	513	313
	TMBP	8	0	0	0	0
	Tin Plates	181	197	123	103	6
	Tin Free Steel	74	79	50	23	3
	Pipes	315	354	194	156	182
	TOTAL Flat	**5,180**	**4,928**	**2,891**	**2,976**	**3,122**
	TOTAL Fin. Steel (Non-Alloy)	**5,551**	**5,349**	**3,114**	**3,190**	**3,285**
	TOTAL STEEL (Non-Alloy)	**6,370**	**5,800**	**3,395**	**3,344**	**3,706**
	Alloy/Stainless Steel					
	Non-Flat	554	427	287	295	204
	Flat	1,190	1,664	1,062	1,516	2,126
	Semi-finished	176	61	20	49	245
	TOTAL Fin. STEEL (Alloy/Stainless)	**1,744**	**2,090**	**1,350**	**1,811**	**2,330**
	TOTAL STEEL (Alloy/Stainless)	**1,920**	**2,151**	**1,370**	**1,861**	**2,575**
	TOTAL Fin. STEEL (Alloy+Non-Alloy)	**7,295**	**7,440**	**4,463**	**5,001**	**5,615**
	TOTAL Steel (Non-Alloy + Alloy)	**8,290**	**7,951**	**4,765**	**5,204**	**6,281**
III	**Other Steel Items**					
	Fittings	193	163	119	136	121
	Misc. Steel Items	1,377	369	214	346	315
	Steel Scrap	5,974	6,763	5,649	5,015	8,197
IV	**Iron**					
	Pig Iron	67	13	7	15	104
	Sponge Iron	58	44	44	48	96
V	**Ferro-Alloys**	576	642	545	707	436
	GRAND TOTAL	**16,536**	**15,945**	**11,342**	**11,471**	**15,550**

P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-III, Para 3.4)

ANNEXURE-XI

CATEGORY-WISE EXPORT OF IRON & STEEL

('000 tonne)

CATEGORY	2018	2019	2020	2021	2022 (P)
SEMIS (Non-Alloy)	**2,259**	**2,660**	**6,087**	**5,236**	**1,961**
FINISHED STEEL (Non-alloy)					
Non-Flat					
Bars & Rods	615	529	767	1,966	719
Structurals	196	167	120	179	221
Railway Materials	4	1	23	2	1
Total Non-Flat	**816**	**697**	**910**	**2,147**	**941**
Flat					
Plates	462	291	521	756	597
H R Coils/Sheets	2,479	4,603	6,467	5,814	2,614
C R Sheets/Coils	748	636	470	1,007	365
GP/GC Sheets	1,025	930	814	1,769	850
Elec. Sheets	79	35	46	38	46
Tinplates	39	27	16	35	19
Tin Free Steel	2	2	2	2	1
Pipes	426	253	136	130	197
Total Flat	**5,260**	**6,777**	**8,472**	**9,552**	**4,688**
Total Fin. Steel (Non-Alloy)	6,076	7,474	9,382	11,699	5,629
Total Steel (Non-Alloy)	8,334	10,134	15,469	16,935	7,590
Non-Flat Alloy/Stainless	289	268	254	604	369
Flat Alloy/Stainless	327	462	514	496	1,908
Total Finished Steel (Alloy/Stainless)	**616**	**730**	**768**	**1,100**	**2,277**
Semi-Finished (Alloy/Stainless)	**35**	**9**	**46**	**12**	**23**
Total Steel (Alloy/Stainless)	**650**	**739**	**814**	**1,112**	**2,300**
Total Fin. Steel (Non-Alloy+Alloy)	**6,692**	**8,205**	**10,150**	**12,799**	**7,906**
Total Steel (Non-Alloy + Alloy)	**8,985**	**10,873**	**16,283**	**18,047**	**9,890**
PIG IRON	335	421	823	1,407	675
SPONGE IRON	558	819	584	666	1,018

P stands for Provisional figure (January-December, 2022); Source: JPC

(Refer Chapter-I and V)

ANNEXURE-XII

COMPARATIVE PBT (PROFIT BEFORE TAX) OF STEEL CPSEs

(Rs. in crore)

S. No.	CPSE/Company	2018-19	2019-20	2020-21	2021-22	2022-23*
1.	SAIL	3337.89	3170.66	6879.03	16038.72	1157
2.	RINL	(-)306.89	(-)4287.51	(-)1259.02	941.58	(-)3025.94
3.	NMDC	7198	6122	8902	12981	4351
4.	MOIL	719.75	340.49	240.11	523.29	227.02
5.	MECON	9.97	87.03	19.11	19.54	(-) 64.10
6.	MSTC	(-)269.21	129.49	114.68	220.08	198.77
7.	KIOCL	184.12	63.68	410.23	411.03	(-) 181.64

*Provisional Upto December, 2022

(Refer Chapter-I and V)

ANNEXURE - XII A

COMPARATIVE PAT (PROFIT AFTER TAX) OF STEEL CPSEs

(Rs. in crore)

S. No.	CPSE/COMPANY	2018-19	2019-20	2020-21	2021-22	2022-23*
1.	SAIL	2178.82	2021.54	3850.02	12015.04	854
2.	RINL	96.71	(-)3910.17	(-)1012.16	913.19	(-)2751.34
3.	NMDC	4642	3610	6253	9398	3252
4.	MOIL	473.89	248.22	176.63	376.98	169.89
5.	MECON	13.74	69.00	6.24	13.70	(-) 64.10
6.	MSTC	(-)324.47	75.20	101.07	200.09	149.64
7.	KIOCL	111.86	43.48	301.17	313.41	(-) 181.64

*Provisional Upto December, 2022

ANNEXURE XIII

CONTRIBUTION MADE TO THE CENTRAL GOVERNMENT AND GOVERNMENT INSURANCE COMPANIES BY STEEL CPSEs

(Rs. in crore)

Sl. No.	CPSE/COMPANY	2018-19	2019-20	2020-21	2021-22	2022-23*
1.	SAIL	10916	8094	6074	16510	11646
2.	RINL	2518.12	2119.53	1888.05	3005.69	22095.05
3.	NMDC	5376	5300	6239	8895	3027
4.	MOIL	381.15	188.61	95.17	438.34	214.52
5.	MECON	112.98	98.81	108.64	96.64	106.55
6.	MSTC	91.26	73.20	73.72	412.79	93.03
7.	KIOCL	53.60	84.91	148.54	168.11	118.09

*Provisional Upto December, 2022

ANNEXURE XIII A

CONTRIBUTION MADE TO THE STATE GOVERNMENT BY STEEL CPSEs

(Rs. in crore)

S. No.	CPSE/COMPANY	2018-19	2019-20	2020-21	2021-22	2022-23*
1	SAIL	2604	3250	2084	7792	5693
2	RINL	767.37	587.91	322.26	474.19	302.74
3	NMDC	1726	2997	2809	10631	6567
4	MOIL	123.43	111.07	90.49	126.35	80.71
5	MECON	6.74	13.25	12.06	11.46	17.29
6	MSTC	24.43	16.26	8.67	20.93	15.28
7	KIOCL	1.11	2.56	3.02	4.30	21.98

*Provisional Upto December, 2022

ANNEXURE XIV

BUDGET AND EXPENDITURE ON CSR BY STEEL CPSEs

(Rs. in lakh)

S. No.	PSU/ Company	2018-19		2019-20		2020-21		2021-22		2022-23*	
		Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.
1.	SAIL	3000	3118	3300	2756	5000	4718	8186	9424	15795	4749
2.	RINL	850	1030	850	796	861	1011	1136	1142	32.94	16
3.	NMDC	20000	16724	20000	19999	16450	15862	25000	28733	21000	2766
4.	MOIL	925.00	929.48	1250	1274.22	1250	1318.12	1350.00	1320.11	1350.00	550.03
5.	MECON	544.03	16.92	547.03	330.52	310.50	44.68	343.20	149.84	272.33	48.58
6.	MSTC	200	200	54	54	-	-	23.98	17.84	272	183.37
7.	KIOCL	39.64	32.51	208.08	331.42	871.77	884.66	438.70	133.58	589.96	148.70

*Provisional Upto December, 2022

(Refer Chapter-I and VIII, Para 8.2.3)

Annexure- XV

RELEASE OF GRANTS UNDER R&D SCHEME

Sl No.	Tittle of the R&D project	2021-2022 (in Rs. Lakh)			2022-23 (upto Dec 2022) (in Rs. Lakh)		
		Total	Capital	Revenue	Total	Capital	Revenue
1	Waste Management of Generated Sludge from Indian Steel and Steel Related Plants: A Sustainable Business Model	3.75	0	3.75			
2	Indigenous development of Austempered Ductile Iron technology for use in automobile & agricultural industries in India	17.00	0	17.00			
3	Development of Type Designs of Aanganwaadi and Houses using Structural Steel as part of Pradhan Mantri Awas Yojana towards Enhancing Use of Steel in Housing Sector	102.7906	39.59767	63.19294			
4	Processing of Tin slag and technological extraction of critical elements for high strength low alloy steels (PATEL)	21.9355	0	21.9355			
5	Technology development at Pilot scale for energy-efficient production of medium carbon ferromanganese in electric arc furnace	47.00	0	47.00			
6	Development of an Advanced Artificial Intelligence based Instrument to Control the Iron Ore Disc Pelletizer	14.56	0	14.56			
7	Development of Nano-sized Magnetite from Mill Scale for Printing Application	23.76	0	23.76			
8	Simultaneous removal of CO2, SOx & NOx from flue gas and their catalytic conversion intofuels and value added fertilizers	55.0786	45.00	10.0786			
9	Bench Scale Production and Cost Estimation of Silicon Carbide Powder Obtained by Plasma Processing of Rice Husk	13.90	3.00	10.90			
10	Development of Steel Slag based cost effective eco-friendly fertilizers for sustainable agriculture and inclusive growth	181.2243	0	181.22429	69.41225	35.69767	33.71458
	Total	**481.00**	**87.59767**	**393.40133**	**69.41225**	**35.69767**	**33.71458**

Annexure- XVI

REPORTS OF CAG

1. The **Report no.14 of 2021** of Comptroller and Auditor General of India (C&AG) on Compliance Audit Observation includes important audit findings noticed as a result of test check of accounts and records of Central Government owned companies and corporations conducted by the officers of the C&AG under Section 143(6) of the Companies Act 2013 or the statutes governing various corporations.

i. Imprudent financing resulting in non-recovery of dues

MSTC Limited (MSTC) entered (April2013) into an agreement w.e.f., 12 December 2012 with Concast Steel & Power Limited, a private party, for financing import/procurement of Low Ash Metallurgical coke, coal and melting scrap under facilitator mode. As per the agreement, the material was to be pledged in the name of MSTC and store data designated ware house located within the plant of Concast Steel & Power Limited under the custody of a Custodian. Though being aware of the poor financial health of Concast Steel & Power Limited, MSTC continued financing Concast Steel & Power Limited from time to time by increasing the credit limit exposures. The total outstanding dues of Concast Steel & Power Limited to MSTC were Rs. 220.84 crore till February 2021 and no recovery could be made there against. Since the National Company Law Tribunal recognised MSTC as unsecured operational creditor in the list of stakeholders of Concast Steel & Power Limited, the chances of recovery are doubtful and MSTC also provided for the entire outstanding dues of Concast Steel & Power Limited in the books of accounts for the year 2018-19. Thus, imprudent decision of MSTC towards extending financial assistance to Concast Steel & Power Limited under facilitator mode resulted in non-recovery of dues of Rs. 220.84 crore.

(Para 7.1)

ii. Payment of registration charges and stamp duty twice for Mining Lease

NMDC Limited incurred avoidable expenditure of Rs. 48.36 crore due to payment of Registration Charges and Stamp Duty for registering the same mine (Deposit 13) twice within a year, first by NMDC Limited and then for the second time by its Joint Venture Company NMDC-CMDC Limited. On account of failure of NMDC Limited in obtaining specific assurance from the Government of Chhattisgarh regarding waiver from payment of Registration Charges and Stamp Duty in the Shareholders cum Joint Venture Agreement, NMDC Limited had to bear the additional burden.

(Para 7.3)

iii. Avoidable expenditure on account of penal interest

The Orissa Minerals Development Company Limited (OMDC) operates six iron ore and manganese ore mining leases located in Odisha. Hon'ble Supreme Court of India ruled (August 2017) that penalty be levied on lessees for illegal mining activities like production without/in excess of environment clearance and forest clearance. Accordingly, Government of Odisha demanded (September/ October 2017) penalty of Rs. 643.27 crore from OMDC for violation of environment clearance and Rs. 58.91 crore towards penalty for production of excess minerals beyond the approved limits prescribed in the Mining Plan and Consent to Operate. Despite clear directions for payment by Central Empowered Committee, Government of Odisha, Hon'ble Supreme Court of India, Government of India and legal advices obtained by the Company (December2017/ May2018/ December2018), OMDC did not make full payment of compensation within the stipulated timeline. The delay resulted in avoidable payment of penal interest amounting to Rs. 174.04 crore.

(Para 7.7)

2. Press Brief on Report of CAG on 'Compliance Audit of Activities of Rashtriya Ispat Nigam Limited'

Report of the Comptroller and Auditor General (CAG) of India on 'Compliance Audit of Activities of Rashtriya Ispat Nigam Limited' (Audit Report No. 7 of 2022) was presented in Parliament.

This Audit Report contains reviews on 02 selected areas of operation relating to Rashtriya Ispat Nigam Limited (RINL) viz. (1) Category-I Capital Repairs of Blast Furnaces No. 1 and 2 and (2) Assessment of Environmental Issues.

Major Audit Findings are given below:

i. Category-I Capital Repairs of Blast Furnaces No. 1 and 2

Blast Furnaces No. 1 and 2 of Rashtriya Ispat Nigam Limited (RINL) were commissioned in March 1990 and March 1992. As against the scheduled time of 14 to 16 years from commissioning for carrying out Category-I capital repairs, which are major repairs of these furnaces, the actual repairs were done after 23 years and 24 years of commissioning of Blast Furnace No. 1 and Blast Furnace No. 2 respectively. This resulted in deterioration of the hearth of furnaces with resultant operation of these furnaces under restricted regime. As a result, there was loss of production of 1.78 million tonnes of hot metal from 2011-12 to 2015-16 with consequential loss of earnings of Rs. 1,396.64 crore.

After the completion of Category-I capital repairs, there was loss of production of 4.93 million tonnes of hot metal with consequential loss of earnings of Rs. 1,844.82 crore as the Blast Furnaces were not utilised to their rated capacities mainly due to non-synchronization of revamping of other upstream/downstream facilities. Also, there was loss of production of 2.36 million tonnes of hot metal with consequential loss of earnings of Rs. 810.38 crore because of

forced shutdown of Blast Furnace No. 2 due to non-integration of Upstream and Downstream Plants. Thus, in total, there was loss of production of 7.29 million tonnes of hot metal after Category-I capital repairs with consequential loss of earnings of Rs. 2,655.20 crore.

There was delay in initiation of tenders/ award of contracts for Upstream and Downstream Plants resulting in mismatch between the production capacities of different units. This also resulted in additional cost towards coke procurement amounting to Rs. 788.60 crore.

Fuel consumption was higher than the guaranteed norms resulting in additional cost towards increased consumption of coke amounting to Rs. 354.09 crore. Further, reduced infusion of Pulverised Coal resulted in additional cost of Rs. 1,279.69 crore.

Thus, it can be seen that planning for capital repairs of Blast Furnaces No. 1 and 2 was not made holistically considering the increased requirement of raw material as well as downstream facilities to process enhanced production of hot metal from blast furnaces after Category-I capital repairs. Further, significant delays in carrying out these repairs coupled with non-synchronization of revamping of upstream and downstream facilities led to significant loss of production and earnings totalling Rs. 6,665.80 crore prior to as well as after conducting of these repairs. Delays in execution of main as well as all the auxiliary packages for capital repairs of both the furnaces clearly indicate the deficiencies of monitoring mechanism of RINL.

ii. Assessment of Environmental Issues

As Steel Plants are one of the highly polluting industries, compliance to various regulations made for protection of the environment is of utmost importance.

RINL commenced operations under Capacity Expansion from 6.3 to 7.3 million tonnes per annum without obtaining Environmental Clearance from the Ministry of Environment, Forest and Climate Change as required vide Notification dated 14 September 2006 of the Ministry.

Abatement of Air Pollution requires emission of certain gases/ substances to be kept within the prescribed norms. Audit noticed higher levels/ emissions of Carbon Monoxide (CO),Carbon Di Oxide (CO2), PM10 when compared with Sustainability Plan targets and norms stipulated by regulatory bodies. There were excess fugitive and charging emissions from Coke Oven Batteries. RINL had not rebuilt its older Coke Oven Batteries as required under Charter on Corporate Responsibility for Environment Protection, 2003. Further, emissions data from Online Continuous Emission Monitoring Systems was not reliable due to non-upgradation of obsolete Online Continuous Emission Monitoring Systems.

Specific energy consumption in the Plant and overall fuel consumption rate in Blast Furnaces were in excess of the targets stipulated in RINL's Sustainability Plan leading to release of excessive Green House Gases. On water pollution front also, effluents discharged by plants of RINL were in excess of the norms stipulated by the Ministry of Environment, Forest and Climate Change.

Further, usage of high ash content boiler coal in Thermal Power Plant for power generation led to generation of higher quantities of fly ash. Non-utilisation of this fly ash in line with the Notifications issued by the Ministry of Environment, Forest and Climate Change led to water, air and land pollution. There has been accumulation of Blast Furnace/ Steel Melting Shop slags leading to air and land pollution.

It was also noticed that Andhra Pradesh Pollution Control Board failed to arrest the continuous non-compliance by RINL to the norms stipulated by regulatory authorities with reference to emissions, flaring of gases, installation of equipment, generation of hazardous waste in excess of authorisation, etc. and take necessary action during various inspections of the Plant.

Thus, RINL needs to improve its Environment Management System to overcome various deficiencies that have arisen due to non-compliance with emission norms, non-upgradation of pollution monitoring/ controlling equipment, non-revamping of old and pollution causing production machineries etc.

3. Press Brief on Report of CAG on 'Compliance Audit of Activities of Steel Authority of India Limited' presented in Parliament

Report of the Comptroller and Auditor General (CAG) of India on 'Compliance Audit of Activities of Steel Authority of India Limited' (Audit Report No. 8 of 2022) was presented in Parliament.

This Audit Report contains reviews on 02 selected areas of operation relating to Steel Authority of India (SAIL) viz. Refractory Management and Financial Management.

Major Audit Findings

i. Refractory Management in Steel Authority of India Limited

SAIL did not take adequate steps to upgrade and modernize its production capacity for refractories, despite the critical role of refractories in Steel making process.The Company failed to constitute the Refractory Task Force, envisaged to assess annual requirement of refractory, at Durgapur Steel Plant, Alloy Steels Plant and Indian Iron & Steel Company Steel Plant. Its inability to assess its requirements led to excess inventory holding worth Rs. 257.15 crore (31st March 2020) while in some cases inventory of refractories lay blocked for 15 to 20 years.

SAIL also failed to make optimum utilisation of idle capacity available in-house and incurred extra expenditure of Rs. 34.83 crore during 2015-16 to 2019-20 due to procurement from outside sources at higher cost. Delays in procurement process and consequent expiry of the price validity period also led to extra expenditure of Rs. 13.07 crore during 2015-16 to 2019-20.

SAIL also failed to develop a good vendor base and continued to procure items on single tender basis. Rourkela Steel Plant procured tundish refractories on Single Tender for Rs. 113.39 crore during 2013-14 to 2019-20 and Bokaro Steel Plant procured refractory sets worth Rs. 90.28 crore from the same supplier during 2015-16 to 2019-20 on proprietary basis.

The Company incurred avoidable expenditure on account of delays in implementation of Total Ladle Management System and partial implementation of new generation slide gate system.

Refractory management system in SAIL requires improvement so that in house facilities are optimally utilised and costs for procurement of refractories are reduced.

ii. Financial Management in Steel Authority of India Limited

SAIL incurred losses during 2015-16 to 2017-18 and subsequently earned profits during 2018-19 and 2019-20 mainly on account of valuation of sub-grade fines, scrap etc. The Company was faced with declining Credit Rating over last 5 years, which was attributable to weak operational performance, debt levels and interest cost. Borrowings by SAIL had increased from Rs. 16,320 crore in 2011-12 to Rs. 54,127 crore as on 31 March 2020. Audit noted that the decision to hedge loan and interest by the Company was not consistent. Non-hedging of loans of USD 400 million in terms of foreign exchange fluctuation led to avoidable expenditure of Rs. 194 crore. The Company did not hedge the interest on Buyers Credit (LIBOR) except in few cases during March 2017 to December 2017.

Out of 21 Joint Venture Companies of SAIL, eight were operational, three under project/ feasibility stage and ten were inactive or under closure. Company had not framed any policy or guidelines for investment of funds in the Joint Venture Companies. Debtors had increased from Rs. 3,297 crore (2015-16) to Rs. 9,020 crore (2019-20). There was delay in submission of claim of Rs. 1,959.46 crore towards price escalation for rails.

Extra expenditure was incurred due to non-drawal of minimum guaranteed gases by the steel plants. Avoidable expenditure of Rs. 41.09 crore towards Engine Hire Charges was incurred by Indian Iron and Steel Company Steel Plant due to detention of engine beyond free time allowed by the Railways. SAIL also paid idle freight of Rs. 397.90 crore due to underloading of wagons and Rs. 7.66 crore as penalty for overloading of wagons. Consumption of excess water than the permitted quantity led to extra expenditure of Rs. 58.33 crore by Bhilai Steel Plant.

The critical ratios depicting SAIL's financial position like Debt Equity ratio, Interest Coverage Ratio and Net Debt to Earnings before interest, taxes, depreciation and amortization ratio also indicated financial instability and worsening credit profile of the Company.

4. The **Report no. 33 of 2022** of Comptroller and Auditor General of India (C&AG) on Compliance Audit Observation includes important audit findings noticed as a result of test check of accounts and records of Central Government owned companies and corporations conducted by the officers of the C&AG under Section 143(6) of the Companies Act 2013 or the statutes governing various corporations.

i. Imprudent financing resulting in loss of Rs. 26.87 crore

MSTC Limited (Company) entered into a Memorandum of Agreement with Global Coke Limited, (Party), for financing the procurement of hard coking coal under facilitator mode in December 2009. After expiry of the above agreement in December 2011, the Company extended the same from time to time inspite of being aware of the poor financial condition of the party. The Company did not undertake the risk sale of pledged material of the Party to recover its outstanding dues of Rs. 31.37 crore considering submission of the party to clear its outstanding dues by July 2019. Further, despite favourable arbitration award, the Company did not take action to implement the same. The Party went to the National Company Law Tribunal, Kolkata and the National Company Law Tribunal finally ordered (May 2018) for liquidation of the Party. The Company ultimately received (September 2019) only Rs. 1.35 crore from the liquidator as proceeds from disposal of pledged material and recognised the outstanding dues of Rs. 26.87 crore from the Party as bad debts in its books of accounts considering the same as irrecoverable.

(Para 5.1)

ii. Loss on account of deficiencies in project management

Project for installation of 'Hot Metal De-sulphurisation Station in Steel Melting Shop-II' at SAIL/ Bokaro Steel Plant was approved (July 2008) and was awarded to a consortium of M/s. Tata Projects Limited (Contractor) and M/s Danieli Corus BV in October 2008 at a contract price of Rs. 51.21 crore and Euro 1,696,979. The project was to be completed by April 2010. SAIL spent Rs. 53.55 crore on the project till 31 March 2015 (after which only arbitration award payment and some milestone payments were made) and cost increased to Rs. 67.82 crore till July 2021. The commissioning and Performance Guarantee test of the project could not be done even after the lapse of more than 11 years from the scheduled date of completion mainly due to non-completion of various upstream and downstream facilities which had to be got done by SAIL. SAIL/Bokaro Steel Plant blocked funds of Rs. 67.82 crore on account of its deficient project management which led to non-completion of Hot Metal Desulphurisation Station project and consequent loss of interest of Rs. 33.34 crore (upto December 2021). Additional expenditure of Rs. 15.21 crore was also incurred on account of prolongation cost paid to the Contractor. Further, the equipment installed 7-8 years back requires refurbishment at an estimated cost of Rs. 57.75 crore.

(Para 5.2)

iii. Loss due to idling of Gas holder installed at Rourkela Steel Plant

Gas holders installed at SAIL/Rourkela Steel Plant during 1960 had outlived their useful life of 18 years and accordingly SAIL Board accorded (October 2006) in-principle approval for installation of a 1,00,000 cubic meters Coke Oven gas holder as replacement. The work order was issued (July 2007) at a cost of Rs. 99.37 crore and the new gas holder was commissioned (August 2010). It was in operation till 7 November 2012, when an incident occurred due to which the equipment was not in operation. Coal and Chemicals Department of Rourkela Steel Plant initiated a proposal (January 2015) for repair of the gas holder but no

decision was taken by Rourkela Steel Plant on the proposal. A multi-disciplinary committee was constituted (June 2020) which recommended (September 2020) to appoint consultant to explore alternative technologies for modification of gas holder. However, revival of gas holder was not pursued as in view of improved Coke Oven gas position after Modernisation and Expansion of Rourkela Steel Plant, gas holder was no longer needed for Coke Oven gas network. Failure of the Management to assess the need for new Coke Oven gas holder in the light of its upcoming Modernisation and Expansion Programme led to the gas holder installed at a cost of Rs. 99.37 crore becoming redundant after only 27 months of use and idling for more than nine years.

(Para 5.3)

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