ANNUAL REPORT

2015-2016

सत्यमेव जयते

Ministry of Steel

Government of India

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The production, financial and other related figures for 2015-16 are Provisional.


CHAPTER-I

HIGHLIGHTS

1.1 Trends and Developments in Steel Sector

- India has become the world's 3rd largest producer of crude steel in 2015 against its 8th position in 2003.
- India is the largest producer of direct reduced iron (DRI) or sponge iron in the world.
- The country is also the 3rd largest consumer of finished steel in the world preceded by China and the USA.
- The steel sector contributes to nearly 2% of the country's GDP and employs over 6 lakh people.
- During April-December 2015-16 (prov.; source: JPC), the following is the industry scenario as compared to same period of last year:

  i. Production of crude steel was at 67.077 million tonnes, a growth of 0.9% compared to same period of last year. The Integrated Steel Producers (ISP) produced 35.077 million tonnes during this period, which was a growth of 2.1% compared to last year. The Mini & Other Producers produced 32 million tonnes during this period, which was a decline of 0.4% compared to last year.

  ii. Pig iron production for sale was 7.202 million tonnes (a decline of 0.1% compared to last year), after accounting for own consumption/Inter Plant Transfers (IPT). The ISPs accounted for 12% of the same, the rest (88%) being the share of the Mini & Other Producers.

  iii. In case of total finished steel (alloy + non-alloy):

  - Production for sale stood at 67.711 million tonnes, a decline of 1.8% compared to last year.
  - Exports stood at 2.911 million tonnes, a decline of 29.7% compared to last year.
  - Imports stood at 8.39 million tonnes, a growth of 29.2% compared to last year.
  - India was a net importer of total finished steel.
  - Real consumption stood at 58.937 million tonnes, a growth of 4.4% compared to last year.

  Data on production for sale, real consumption, import and export of total finished steel (alloy + non-alloy) and production of crude steel for the last five years and April-December 2015-16 (provisional) is shown in the table below:

(in million tonnes)

Item	2010-11	2011-12	2012-13	2013-14	2014-15	April-December 2015-16*
Total finished steel^						
Production for sale	68.62	75.70	81.68	87.67	92.16	67.711 (-1.8)
Real Consumption	66.42	71.02	73.48	74.09	76.99	58.937 (4.4)
Import	6.66	6.86	7.93	5.45	9.32	8.39 (29.2)
Export	3.64	4.59	5.37	5.98	5.59	2.911 (-29.7)
Crude steel production	70.67	74.29	78.42	81.69	88.98	67.077 (0.9)

Source: JPC; *prov.; Note: figures in bracket ( ) indicate % change over same period of last year; ^(alloy+non-alloy)

Hon'ble Prime Minister, Shri Narendra Modi, dedicating the SAIL's Modernised & Expanded Rourkela Steel Plant (RSP) to the Nation.

1.2 Major Initiatives taken by the Ministry of Steel during the year

- Ministry of Steel has notified 15 steel products which are critical in building the country's infrastructure under the mandatory certification mark scheme of BIS vide Steel and Steel Products (Quality Control) Order dated 12.03.2012. Subsequently, 15 more products have been notified on 18.12.2015 taking it to a total of 30 products under mandatory quality standards.
- Facilitated the formation of Indian Steel Association (ISA) to articulate the needs and aspirations of the steel sector of the country.
- To provide information and facilitate investment, an Investment Facilitation Cell has been set up in the Ministry, details of which have also been placed on the Ministry's Website.
- Steel Research and Technology Mission of India (SRTMI) being established to spearhead R&D activities of national importance in collaboration with steel industry with an initial corpus of Rs.200 crore. Memorandum of Agreement (MoA) has been signed on 06th April,2015. SRTMI has been registered under the Societies Registration Act,1860 in October,2015.
- In order to achieve the growth target of production of 300 Million Tonnes of Steel by 2025, a concept of Special Purpose Vehicle (SPV) has been proposed with respective State Governments of Chhattisgarh, Odisha, Jharkhand and Karnataka.
- The following MoUs were signed in the presence of Hon'ble Prime Minister, Hon'ble Minister for Steel & Mines and the Chief Minister, Chhattisgarh on 09th May,2015.
    - ❖ MoU between Govt of Chhattisgarh, NMDC, IRCON and SAIL for 140km rail line between Rowghat and Jagdalpur. Estimated project cost: Rs. 2000 crore.
    - ❖ MoU between Ministry of Steel, Govt of Chhattisgarh, SAIL and NMDC for 3 million ton Steel Plant with an investment of approximately Rs. 18,000 crore.
    - ❖ MoU between Govt of Chhattisgarh and NMDC for Slurry Pipeline and 2MTPA Pellet Plant at Nagarnar in Bastar District with an investment of Rs. 4000 crore.
    - ❖ MoU between Govt of Chhattisgarh and SAIL for setting up 1MTPA Pellet Plant at Dalli-Rajhara, Balod District with an investment of Rs. 826 crore.

A view of Bloom-cum-Round Caster at Durgapur Steel Plant, SAIL.

- Ministry of Steel and UNDP are jointly implementing an energy efficiency programme for 300 units in secondary steel sector (Funding by Ministry and UNDP).
- Ministry of Steel has entered into a strategic partnership through an MoU with Ministry of Skill Development and Enterpreneurship for facilitating skill development through CPSEs of the Ministry. SAIL, RINL, MOIL , KIOCL and NMDC each signed MoUs with National Skill Development Corporation for skill development.
- Sevottam Compliant Citizen's Charter being implemented by the Ministry of Steel to provide prompt services to citizens/clients has been updated.
- Ministry of Steel in association with Steel Industry put up "Steel Pavilion" at India International Trade Fair, 2015 with the theme of 'Make in India' where several items of Steel & mining sector were showcased.

1.3 Major Expansion/acquisitions/Joint Ventures by PSEs

Steel Authority of India Ltd. (SAIL)

- Steel Authority of India Ltd. has undertaken Modernisation & Expansion of its integrated steel plants at Bhilai, Bokaro, Rourkela, Durgapur & Burnpur and special steel plant at Salem. In the current phase, the crude steel capacity is being enhanced from 12.8 Million Ton to 21.4 Million Ton per annum. The indicative investment for current Phase is about Rs. 61,870 crore. In addition, Rs. 10,000 crore (approximately) has been earmarked for modernization and expansion of SAIL mines.
- Cumulative expenditure for various Modernisation & Expansion packages until December, 2015 has been Rs. 61,245 crore including expenditure of Rs. 4482.83 crore during the financial year 2015-16 till Dec'15.
- Expansion of Salem Steel Plant, Rourkela Steel Plant, IISCO Steel Plant, Durgapur Steel Plant and Bokaro Steel Plant have been completed. At IISCO Steel Plant, Burnpur, India's largest Blast Furnace (4160 m3), has become operational.


- At Bhilai Steel Plant, facilities like Ore Handling Plant Par-A, second Sinter Machine in Sinter Plant-3 and Coke Oven Battery -11 are in operation and other facilities are at advanced stages of execution.

NMDC Ltd.

- NMDC Ltd. is setting up a 3 mtpa greenfield integrated steel plant at Nagarnar, District- Bastar in Chhattisgarh. All major technological packages and auxiliary packages have been awarded and construction work is in progress.
- NMDC is in the process of expanding its business through forward integration in both Greenfield and Brownfield projects by setting up (a) 1.2 mtpa Pellet Plant at Donimalai in Karnataka (b) 2 mtpa Pellet Plant at Nagarnar along with 2 mtpa Beneficiation Plant at Bacheli interconnected by a Slurry Pipeline between Bacheli and Nagarnar in Chhattisgarh.

Rashtriya Ispat Nigam Ltd. (RINL)

- Expansion of RINL from 3.0 mtpa to 6.3 mtpa capacity of liquid steel has been completed.
- Iron Ore Storage Augmentation – Reclaiming streams commissioned in July '15.
- 120 MW Power Plant-II commissioned.
- RINL in partnership with POWERGRID (Power Grid Corporation of India) established a Joint Venture Company "RINL POWERGRID TLT Pvt Ltd." to manufacture 1.2 Lakh tonne/annum of Transmission Line Tower parts at Visakhapatnam.
- RINL entered into an MoU with APMDC for exploration and development of Iron ore mining reserves over an area of 2,800 hectares in Kukunur area of West Godavari district, through JV route.

1.4 Highlights of PSEs during 2015-16 (April-December, 2015)

1.4.1 Steel Authority of India Ltd. (SAIL)

- Net worth of the Company was Rs. 40601 crore as on 31.12.2015.
- SAIL paid a final dividend for FY 2014-15 to the shareholders @ 2.50% of Company's paid-up equity share capital amounting to Rs. 103.25 crore.
- Sales turnover of Rs. 30725 crore in the first Nine months of the Financial Year 2015-16, which is lower by 18.6% as compared to corresponding period of last year (CPLY).
- Completed construction of 672 toilets under Swachh Vidyalaya Abhiyan.

1.4.2 Rashtriya Ispat Nigam Ltd. (RINL)

- Net worth of the Company was Rs.10404 crore as on 31.12.2015.
- Registered a growth of 21% in production of Saleable Steel.
- Achieved Sales turnover of Rs. 8636 crore.
- Export Sales of Rs.935 crore achieved with 28% growth over corresponding period last year.
- International Marketing Office (IMO) of RINL at Sri Lanka started functioning during the year.
- Completed construction of 86 toilets under Swachh Vidyalaya Abhiyan.

1.4.3 NMDC Ltd.

- Domestic sales of NMDC during 2015-16 (upto Dec'15) was 19.95 million tonnes.
- Export sales of NMDC during 2015-16 (upto Dec'15) was 0.38 million tonnes valued at Rs.118.22 crore.
- Total Sales during the year was 20.33 million tonnes (upto Dec'15).
- Production was 19.79 million tonnes of Iron Ore during 2015-16 (upto Dec'15).
- NMDC has earned Profit Before Tax of Rs.3825 crore (upto Dec'15) during the year 2015-16.
- Performance of NMDC was rated as 'Very Good' as per MoU rating for the year 2014-15 by the Department of Public Enterprises.
- Completed construction of 2089 toilets under Swachh Vidyalaya Abhiyan.

1.4.4 MOIL Ltd.

- MOIL Ltd. produced 7.45 lakh tonnes (prov.) of manganese ore during 2015-16 (upto Dec'15).
- The total income of the company was Rs.619.30 crore (prov.) during 2015-16 (upto Dec'15).
- The Profit Before Tax of the company was Rs. 225.24 crore (prov.) during 2015-16 (upto Dec'15).
- MOIL has paid dividend of Rs.142.80 crore for the financial year 2014-15.
- Completed construction of 99 toilets under Swachh Vidyalaya Abhiyan.

1.4.5 MSTC Ltd.

- MSTC has made rapid stride in e-Commerce business over last couple of years both in terms of volume and service income. MSTC's e-Commerce business has galloped from Rs. 8168 Crore in the year 2010-11 to Rs. 23034 Crore upto 31st March, 2015. There is significant increase in the business volume by 36% upto 31st December, 2015 over previous years' achievement for the same period.
- MSTC successfully auctioned 29 and allotted 41 (total 70) coal mining blocks to steel, cement & power sector and State owned entities respectively in a transparent and fair manner.
- Ministry of Mines has appointed MSTC as e-Auction service provider for Non-Coal Mining Blocks.
- Governments of Gujarat, Rajasthan, Maharashtra, Madhya Pradesh, Chhattishgarh, Jharkhand, Odisha, Andhra Pradesh have signed agreements with MSTC for e-Auction of mineral blocks in the respective States.
- Government of Telangana has engaged MSTC for complete e-commerce services in line with that of Government of Andhra Pradesh for a period of 3 years. Under the Government Order, MSTC will render e-Commerce services to all the departments in the State.
- MSTC conducted e-Auction of Fly-ash emanating from Thermal Power Plant for the first time in country on behalf of NTPC Ltd.
- Ministry of Power engaged MSTC to conduct e-Reverse Auction for revival of under-utilized and Stranded Gas Based power plants in the country utilizing Power System Development Fund of Rs.3500 Crore. The 1st tranche of e-Reverse auction has already been completed successfully and subsidy worth Rs.900 Crore have been auctioned. Till 30th Sept'15 gas subsidy worth Rs.2712.48 Crore to be disbursed, have been auctioned.
- Completed construction of 50 toilets under Swachh Vidyalaya Abhiyan.


1.4.6 Hindustan Steelworks Construction Ltd. (HSCL)

- Achievement against overall Turnover target set in the MoU for 2015-16 till December, 2015 is Rs. 918.88 crore (74.97%).
- Achievement against Order Booking target during 2015-16 till December, 2015 is Rs.1654.46 crore (124.39%) . Improvement over 2014-15 has been by 5.06%.
- Operational Profit of 2015-16 till December, 2015 recorded Rs.70.39 crore (unaudited).
- Unaudited net loss during 2015-16 recorded (-) Rs.12.53 till December,2015.

1.4.7 MECON Ltd.

- As per audited accounts, the Net Worth of MECON as on 31.03.2015 is Rs.410.23 crore. This is significant achievement as compared to the company's negative Net Worth of Rs.(-) 257.91 crore as on 31.03.04.
- MECON has paid a Dividend of Rs.1.06 crore on Preference Share Capital and Rs.8.03 crore on Equity Share Capital to the Government for the financial year 2014-15.
- MECON completed construction of 53 toilets under Swachh Vidyalaya Abhiyan.


CHAPTER-II

ORGANISATIONAL STRUCTURE AND FUNCTIONS OF THE MINISTRY OF STEEL

2.1 Introduction

The Ministry of Steel is under charge of the Minister of 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 list of Minister-in-charge and the officers down to the level of Deputy Secretary is given in Annexure-II.

2.1.1 Key Functions of the Ministry of Steel

- Policy formulation regarding production, distribution, pricing of iron & steel and ferro alloys.
- Development of Steel Plants in Public and Private Sectors, the re-rolling industry and ferro-alloys.
- Development of iron ore mines in the public sector and other ore mines like manganese ore, chrome ore, limestone and other minerals used in the iron and steel industry (but excluding mining lease or matters related thereto).
- Providing a platform for interaction of all producers and consumers of steel in the country.
- Identification of infrastructural and related facilities required by steel industry.
- Overseeing the performance of 8 PSUs, their subsidiaries and one Special Purpose Vehicle (Joint Venture Company) called International Coal Ventures Pvt. Ltd. (ICVL).

2.1.2 Allocation of Responsibilities

The Ministry of Steel has a Secretary, Additional Secretary & Financial Adviser, 04 Joint Secretaries, 06 Directors, 02 Deputy Secretary, 01 Joint Director (OL) and other supporting officers and staff as on 31.12.2015. The Ministry also has an Economic Adviser and a Chief Controller of Accounts. A Technical Wing, under the charge of Deputy Industrial Adviser, gives advice in respect of technical matters besides discharging some secretariat work of technical nature like Research and Development Scheme.

2.2 Key Divisions/Sections in the Ministry

SAIL, MFH, Projects and International Cooperation, Steel Development (Institutes), Technical Division, NMDC, Raw Materials, Trade and Taxation, Industrial Development, MECON, RINL, Bird Group, Board Level Appointments, KIOCL, MOIL, Budget and Finance, Economic Division.

2.3 Other Related Organs of the Ministry of Steel

2.3.1 Joint Plant Committee (JPC)

Accredited with ISO 9001: 2008 certification, Joint Plant Committee (JPC) is the only institution in the country, which is officially empowered by the Ministry of Steel / Government of India to collect data on the Indian iron and steel industry.

JPC is headquartered at Kolkata with four regional offices in New Delhi, Kolkata, Mumbai and Chennai and an extension office in Bhubaneshwar engaged in collection of data. JPC is headed by a Joint Secretary to Government of India, Ministry of Steel as its Chairman and has representatives from SAIL, RINL, Tata Steel and Railway Board as its Members.


The four Regional Offices of JPC play a pivotal role in close association with the headquarter at Kolkata:

- Collection of production, stock and raw material data from the producers.
- Collection of import and export data from the custom houses.
- Collection of domestic market prices.
- Regular follow-up/monitoring and related liaison activities with industry.
- Visit to defaulting steel producing units for on-spot data collection.
- Active role in field level collection during segment surveys.
- Organizational support to seminars/exhibitions including Ministry of Steel events like the Steel Consumers' Council meetings, steel pavilion at IITF.

2.3.2 Economic Research Unit

Economic Research Unit (ERU) at New Delhi, a wing of JPC serves the Ministry of Steel on various policy matters. ERU also works as the Secretariat of the Panel of Judges for the prestigious Prime Minister's Trophy and the Steel Minister's Trophy. The ERU is also the secretariat of Steel Exporters' Forum, which is an association of the industry and various government bodies, set up to facilitate exports of the steel from the country. The ERU regularly interacts with the industry and financial institutions located both within and outside the country. The ERU prepares monthly reports of the steel market and quarterly reports on the financial status of the industry.

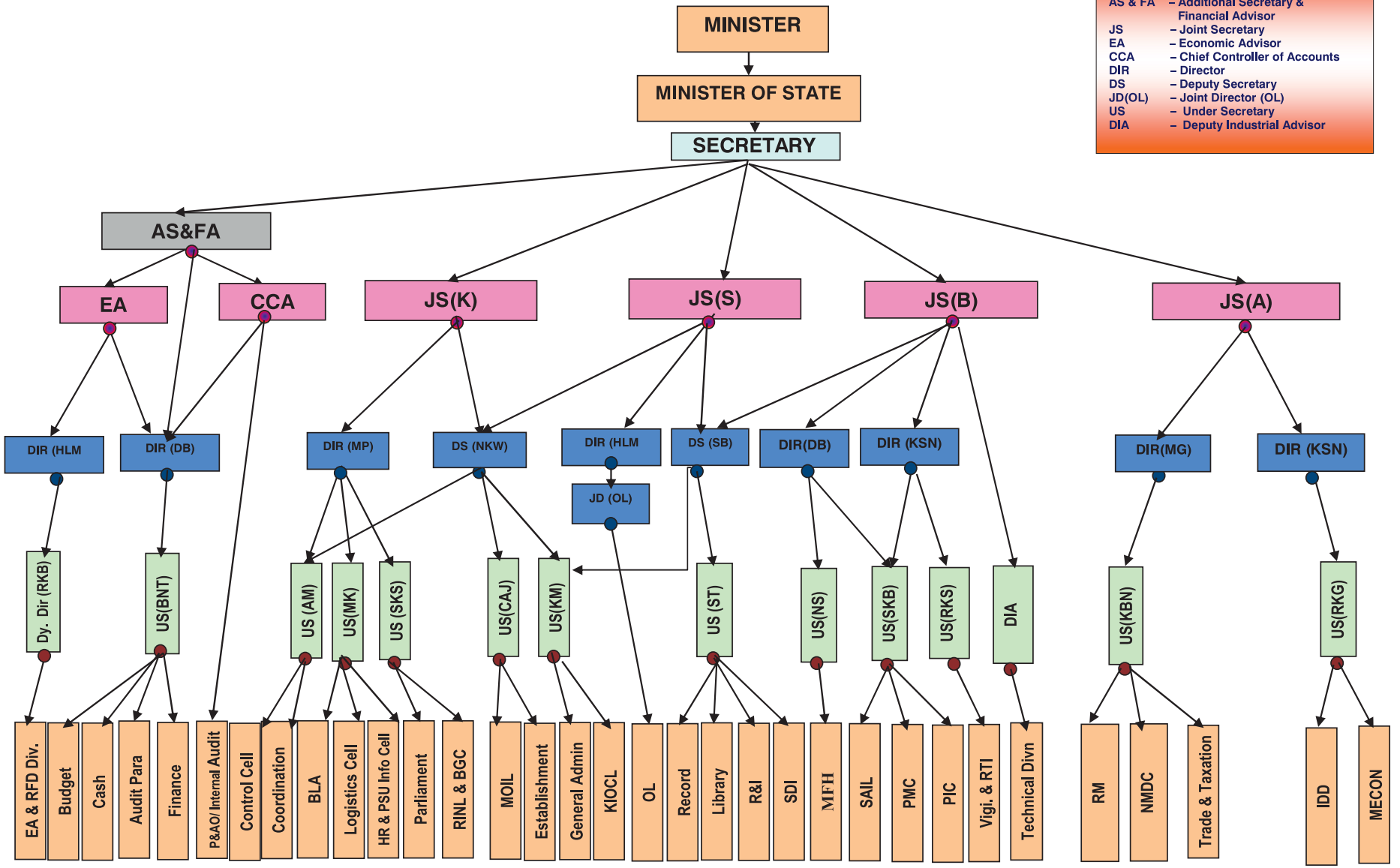
2.4 Public Sector Units under the administrative control of the Ministry of Steel

Sl. No.	Name of the Company	Headquarters	Subsidiaries
1.	Steel Authority of India Ltd.	Ispat Bhawan, Lodi Road, New Delhi - 110003	SAIL Refractory Co. Ltd. Post Bag No. 565, Salem-636005 (TN)
2.	Rashtriya Ispat Nigam Ltd.	Administrative Building, Visakhapatnam - 530031 (Andhra Pradesh)	EIL, OMDC & BSLC AG 104, Saurav Abasan 2nd Floor, Sector II, Salt Lake City, Kolkata-700091
3.	NMDC Ltd.	Khanij Bhawan, 10-3 -311/A, Castle Hills, Masab Tank, Hyderabad-500028 (Andhra Pradesh)	J&K Mineral Development Corporation Ltd., 143-A, Gandhi Nagar, Jammu-180004 (J&K)
4.	MOIL Ltd.	MOIL Bhawan, 1-A, Katol Road, Nagpur-440013 (Maharashtra)	
5.	MSTC Ltd.	225-C, Acharya Jagdish Chandra Bose Road, Kolkata-700020 (West Bengal)	Ferro Scrap Nigam Ltd., FSNL Bhawan, Equipment Chowk, Central Avenue, Bhilai-490001 (Chhattisgarh)
6.	Hindustan Steelworks Construction Ltd.	5/1, Commissariat Road, (Hastings), Kolkata - 700022 (West Bengal)	
7.	MECON Ltd.	MECON Building, Ranchi-834002 (Jharkhand)	
8.	KIOCL Ltd.	II Block, Koramangala Bengaluru-560034 (Karnataka)	

ORGANISATION CHART OF THE MINISTRY OF STEEL
As on March 2, 2016

LEGENDS

AS & FA	– Additional Secretary & Financial Advisor
JS	– Joint Secretary
EA	– Economic Advisor
CCA	– Chief Controller of Accounts
DIR	– Director
DS	– Deputy Secretary
JD(OL)	– Joint Director (OL)
US	– Under Secretary
DIA	– Deputy Industrial Advisor



CHAPTER-III

THE INDIAN STEEL SECTOR: DEVELOPMENT AND POTENTIAL

3.1 Introduction

At the time of independence in 1947, India had only three steel plants - the Tata Iron & Steel Company, the Indian Iron and Steel Company and Visveswaraya Iron & Steel Ltd and a few electric arc furnace-based steel plants. Thus, the period till 1947 witnessed a small but a viable steel industry in the country, which operated with a capacity of about a million tonne. The entire industry was in the private sector. From the fledgling one million tonne industry at the time of independence, the industry has now risen to be the 3rd largest producer of crude steel in the world and holding at the same time the top place in the production of sponge iron. As per official estimates, the iron and steel industry accounts for a share of about 2% in Gross Domestic Product (GDP). The steel industry in the country has also developed capabilities in producing a wide range of very sophisticated steel of global standards. It is now capable of addressing diverse needs of the domestic end user industries as also compete globally in high value added steel products segments. In the mean time, the industry has gathered sufficient maturity and stability in business to overcome cyclical swings in the industry's business.

Indian steel industry was under strict government regulation till 1991-92. The regulations were embedded in the following:

- 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 government initiated a comprehensive economic policy reforms programme in the early 1990s which included the following elements:

- Large-scale capacities were removed from the list of

February 4, 1962: Shri Lal Bahadur Shastri watching Bhilai's steel-making process

industries reserved for the public sector. The licensing requirement for additional capacities was also withdrawn subject to locational restrictions. This resulted in the private sector playing a more prominent role in the overall set-up.

- Pricing and distribution controls were discontinued.
- The iron and steel industry was included in the list of high priority industries for foreign investment, implying automatic approval for foreign equity participation up to 100 per cent.
- Freight equalization scheme was abolished in phases.
- Foreign trade in steel was made free.

3.1.2 The system, thereafter, underwent marked changes. For the steel makers, economic reforms opened up 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 operational practices and steel technologies. This, along with the pressures of a competitive global market, increased the productivity and efficiency levels in the industry which made a significant section of the industry globally competitive. The steel consumer, on the other hand, gained from expanded supplies in various products both from domestic and overseas suppliers. As a result of these economic reforms, country's steel capacity increased substantially. Large integrated steel plants were set up in the Private Sector, viz., Essar Steel, Ispat Industries and Plants of the Jindal Group, for example. Tata Steel also expanded their capacity.

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 utilization, production, consumption, exports and profitability - slipped and were below expectation. 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. At the same time, widespread recoveries in major markets led to increase in steel production, prices and profitability in the industry. Trade barriers were also reduced in the wake of new opportunities in the global market. The situation was no different for the Indian steel industry, which by then had acquired a degree of maturity, with emphasis on intensive R&D, adoption of measures to increase domestic steel consumption intensity, import substitution efforts, thrust on exports and procurement of inputs from the global markets to remain cost competitive.

3.1.4 The rapid pace of growth of the industry and the observed market trends called for certain guidelines and framework. Thus was born the concept of the National Steel Policy, with the 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 is to ensure that India has a modern and efficient steel industry of world standards, catering to diversified steel demand. The focus of the policy is to attain levels of global competitiveness in terms of global benchmarks of efficiency and productivity. The National Steel Policy 2005 seeks to facilitate removal of procedural and policy bottlenecks that affect the availability of production inputs, increased investment in research and development, and creation of road, railway and port infrastructure. The Policy focuses on the domestic sector, but also envisages a steel industry growing faster than domestic consumption, which will enable export opportunities to be realized. The policy needs to be in sync with changing times and is accordingly being updated and a New National Steel Policy is under formulation.


3.2 Production, Consumption and Growth of Steel

3.2.1 The table below shows the trend in production for sale, import, export and real consumption of total finished steel (alloy + non-alloy) in the country for the last five years and April-December 2015-16:

Year	Total Finished Steel (alloy + non-alloy) (million tonnes or mt)			
	Production for sale	Import	Export	Real Consumption
2010-11	68.62	6.66	3.64	66.42
2011-12	75.70	6.86	4.59	71.02
2012-13	81.68	7.93	5.37	73.48
2013-14	87.67	5.45	5.98	74.09
2014-15	92.16	9.32	5.59	76.99
April-December 2015-16*	67.71	8.39	2.91	58.94

Source: JPC; *provisional

3.2.2 Crude steel production has shown a sustained rise since 2010-11 along with capacity. Data on crude steel production, capacity and capacity utilization during the last five years and April-December 2015-16 is given in the table below:

Year	Crude Steel		
	Capacity (mt)	Production (mt)	Capacity utilization (%)
2010-11	80.36	70.67	88
2011-12	90.87	74.29	82
2012-13	97.02	78.42	81
2013-14	102.26	81.69	80
2014-15	109.85	88.98	81
April-December 2015-16*	116.74^	67.08	77#

Source: JPC;*provisional; ^full-year figure, #pro-rata, based on annual capacity data

- Crude steel production grew at a cumulative average growth rate (CAGR) of 6.2 % during the last five completed years ending 2014-15. This growth in production was driven by capacity expansion from 80.36 million tonnes in 2010-11 to 109.85 million tonnes in 2014-15, a growth of 8 per cent (on a CAGR basis).
- Production for sale of total finished steel stood at 92.16 million tonnes during 2014-15 as against 68.62 million tonnes in 2010-11 growing at average annual growth rate of 8.7% in CAGR terms during this five-year period while real consumption at 76.99 million tonnes during 2014-15 grew by 5.3 per cent on CAGR basis during this period.
- India has been a net importer of total finished steel every year since 2007-08 except 2013-14. Exports grew by 11 per cent while imports by 5 per cent during the last five year period, both on a CAGR basis.

3.2.3 The above crude steel performance has been contributed largely by the strong trends in growth of the electric route of steel making, particularly the induction furnace route, which accounted for 32 % of total crude steel production in the country during 2014-15 and 31% during April-December 2015-16 and has emerged as a key driver of crude steel production. 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 along with data for April-December 2015-16:

Crude Steel Production by Process Route			
Process Route	**Percentage share (%)**		
	2010-11	**2014-15**	**April-December 2015-16***
Basic Oxygen Furnace (BOF)	43	42	44
Electric Arc Furnace (EAF)	24	26	25
Induction Furnace (IF)	33	32	31
Total	100	100	100

Source: JPC; *provisional

3.2.4 India is producer also a leading of sponge iron with a large number 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 90% of total sponge iron production in the country in 2014-15 as well as during April-December 2015-16 (prov.). Capacity in the sponge iron industry has also increased over the years and stood at 46.23 million tonnes in 2014-15. 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 and April-December 2015-16:

	Production of Sponge Iron (unit: million tonnes)					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**April-December 2015-16***
Coal based	19.27	19.80	19.07	20.19	21.89	14.66
Gas based	6.07	5.17	3.94	2.68	2.35	1.59
Total	25.34	24.97	23.01	22.87	24.24	16.25

Source: JPC; *provisional

3.2.5 India is also an important producer of pig iron. Post-liberalisation, with setting up several units in the private sector, not only imports have drastically reduced but also India has turned out to be a net exporter of pig iron. The private sector accounted for 91 per cent of total production for sale of pig iron in the country in 2014-15. The domestic availability situation of pig iron is given in the table below for the last five years and April-December 2015-16:

	Pig Iron Domestic Availability Scenario ('000 tonnes)					
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**April-December 2015-16***
Production for sale	5683	5371	6870	7950	9694	7202
Import	9	8	21	34	23	18
Export	358	491	414	943	540	216
Consumption	5296	4975	6501	7110	9057	7127

Source: JPC;*provisional

3.3 Global ranking of Indian Steel

World crude steel production stood at 1622.8 million tonnes during 2015, a decrease of 2.8% over 2014 based on provisional data released by World Steel Association (WSA). During 2015, Chinese crude steel production reached 804 million tonnes, registering a decline of 2.3% over the previous year. China remained the largest crude steel producer in the world, accounting for 73% of Asian and 50% of world crude steel production during 2015. India was the 3rd largest crude steel producer during 2015 and recorded a growth of 2.6% over 2014.


World Crude Steel Production: 2015*			
Rank	**Country**	**Qty (mt)**	**% change over 2014**
1	China	803.83	-2.3
2	Japan	105.2	-5.0
3	India	89.60	2.6
4	United States	78.92	-10.5
5	Russia	71.11	-0.5
6	South Korea	69.67	-2.6
7	Germany	42.67	-0.6
8	Brazil	33.24	-1.9
9	Turkey	31.52	-7.4
10	Ukraine	22.93	-15.6
	World	**1622.8**	**-2.8**

Source: WSA; *provisional

3.4 Steel: Key facts

Indian Steel Scene: April -December 2015-16*		
Total Finished Steel (alloy+non-alloy)	**Qty (million tonne)**	**% change****
Production for sale	67.71	-1.8
Import	8.39	29.2
Export	2.91	-29.7
Real Consumption	58.94	4.4
Crude Steel		
Production	67.08	0.9
Capacity Utilization (%)	77	-

Source: JPC; *provisional; ** over same period of last year

Besides achieving the rank of the 3rd largest global crude steel producer in 2015 (provisional), India has also made a mark globally in the production of sponge iron/direct reduced iron (DRI). Courtesy a mushrooming growth of coal-based sponge iron units in key mineral-rich pockets of the country, domestic production of sponge iron increased rapidly, enabling the country to achieve and maintain the number one position in the global market. With a series of mega projects, either being implemented or at the proposal stage, which once operational will re-write the structure of the steel industry and its dynamics; and a domestic economy carrying forward the reform process further, the future of the Indian steel industry is definitely 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 total as also the contribution of the private and public sector in crude steel production in the country during the last five years and April-December 2015-16:

Indian Crude Steel Production							
Sector	**Unit**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**April-December 2015-16***
Public Sector	mt	16.99	16.48	16.48	16.77	17.21	13.34
Private Sector	mt	53.68	57.81	61.94	64.92	71.77	53.74
Total Production	mt	70.67	74.29	78.42	81.69	88.98	67.08
Share of Public Sector	%	24	22	21	21	19	20
Source: JPC; *provisional; mt= million tonnes							

3.6 Plan outlay for the 12th Five Year Plan (2012-17)

For the 12th Five Year Plan (2012-17), the Planning Commission has approved total outlay of Rs. 91174.64 crore (i.e. Internal and Extra Budgetary Resources (I&EBR) of Rs. 90974.64 crore and Gross Budgetary Support (GBS) of Rs. 200.00 crore.

(Rs. in crores)

Sl.No.	**Name of the PSUs**	**12th Plan (2012-17) Approved Outlay**		
		I&EBR	**GBS**	**Total**
A.	**Central Sector Scheme**			
1	Steel Authority of India Ltd.	45000.00	0.00	45000.00
2	Rashtriya Ispat Nigam Ltd.*	13373.00	0.00	13373.00
3	Hindustan Steelworks Con. Ltd.	0.00	0.00	0.00
4	MECON Ltd.	25.00	0.00	25.00
5	MSTC Ltd.	105.00	0.00	105.00
6	Ferro Scrap Nigam Ltd.	60.00	0.00	60.00
7	NMDC Ltd.	27872.17	0.00	27872.17
8	KIOCL Ltd.	3080.00	0.00	3080.00
9	MOIL Ltd	1459.47	0.00	1459.47
	Total (A)	**90974.64**	**0.00**	**90974.64**
B.	**Centrally Sponsored Scheme**			
1	Promotion of Research and Development in Iron & Steel Sector			
1(i)	Ongoing R&D Scheme	–	48.00	48.00
1(ii)	Development of Technology or Cold Rold Grain Oriented (CRGO) Steel Sheets and other value added steel products (new components)	–	150.00	150.00
1(iii)	Development of Innovative iron/ Steel making Process/Technology (new projects under existing scheme)	–	2.00	2.00
	Total (B)	**–**	**200.00**	**200.00**
	Grand Total (A+B)	**90974.64**	**200.00**	**91174.64**

* OMDC Ltd. and BSLC Ltd. were constituents of erstwhile Bird Group of Companies, which have become subsidiary PSUs of RINL and their figures have been clubbed with RINL.


3.7 Role of the Ministry of Steel

The pre-deregulation phase has seen the Ministry of Steel in the key role of a regulator which was essential, given the operating economic conditions, the limited presence of industry and the scarcity of key raw material for steel-making at home. Through skilful and judicious decisions on allocation and pricing and formulating related policy measures, the Ministry of Steel had played an important role in taking the steel industry forward in this phase.

In the post-deregulation period, the role of the Ministry of Steel has primarily been that of a facilitator for the Indian steel industry, being responsible for the planning and development of the iron and steel industry, development of essential inputs such as iron ore, limestone, dolomite, manganese ore, chromites, ferro alloys, sponge iron, and other related functions. In its present day role, the Ministry of Steel is extending all possible support for the development of the Iron and Steel Industry in the country, in matters like:

- Facilitating expedited growth of steel capacity investments through active coordination and formulation of right policy directives. An Inter-Ministerial Group (IMG) is functioning in the Ministry of Steel, under the Chairmanship of Secretary (Steel) to monitor and coordinate major steel investments in the country.
- Providing linkage for raw materials, rail movement clearance etc. for new plants and expansion of existing ones.
- Facilitating movement of raw materials other than coal through finalisation of wagon requirements and ensuring an un-interrupted supply of raw materials to the producers.
- Regular interactions with entrepreneurs proposing to set up new ventures, to review the progress of implementation and assess problems faced.
- Identification of infrastructural and related facilities required by the steel industry, and coordination of infrastructure requirement of steel sector with the concerned Ministries/Department.
- Promoting, developing and propagating the proper and effective use of steel and increasing the intensity of steel usage, particularly in the construction sector in rural and semi urban areas, through "Institute for Steel Development and Growth (INSDAG)" in Kolkata.
- Encouraging research and development activities in the steel sector. An Empowered Committee under the Chairmanship of Secretary (Steel) provides overall direction to research efforts on iron and steel in the country and approves specific research projects placed before it for funding, fully or partially, from the Steel Development Fund. Efforts are being made to further augment R&D activities in the country with Government budgetary support during the 12th Plan period.

CHAPTER-IV

PUBLIC SECTOR

4.1 Introduction

There are 08 (Eight) Central Public Sector Enterprises (CPSEs) under the administrative control of Ministry of Steel. Further, there are 04 (Four) Subsidiary CPSEs. Detailed overview of these CEPEs and their Subsidiaries is as under:

4.2 Steel Authority of India Ltd. (SAIL)

The Steel Authority of India Limited (SAIL) is a company registered under the Indian Companies Act, and is a 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, Central Coal Supply Organisation (CCSO) located at Dhanbad, Raw Materials Division (RMD), Environment Management Division (EMD) and Growth Division (GD) all located at Kolkata, and SAIL Refractory Unit at Bokaro. Chandrapur Ferro Alloy Plant, (CFP) is located at Maharashtra. The Central Marketing Organisation (CMO), with its headquarters at Kolkata, coordinates the countrywide marketing and distribution network of the Company. The SAIL Consultancy Division (SAILCON) functions from New Delhi.

4.2.1 Capital Structure

The Authorized Capital of SAIL is Rs. 5000 crore. The paid up capital of Company is Rs. 4130.52 crore as on 31.12.2015, out of which 75% is held by the Government of India and the balance 25% by the Financial Institutions/GDR holders/Banks/ Employees/Individuals etc.

New Cold Rolling Mill-3 at SAIL's Bokaro Steel Plant

4.2.2 Financial Performance

The Company recorded turnover of Rs.30725 crore in the first nine months of the Financial Year 2015-16. The post-tax net loss was Rs. 2906 crore for the first Nine Months of the Financial Year 2015-16. The Company paid a final dividend for FY 2014-15 to the shareholders @ 2.50% of Company's paid-up equity share capital amounting to Rs. 103.25 crore.

4.2.3 Production Performance

The details of actual production are as under:

(million tonnes)

	2014-15	2015-16 (Apr-Dec'15)
Hot Metal	15.4	11.8
Crude Steel	13.9	10.6
Saleable Steel	12.8	8.8

4.2.4 Raw Materials

During 2015-16 (April-December'2015), Actual production of iron ore, fluxes, raw coal from SAIL captive mines and collieries is about 18.94 million tonnes, 1.73 million tonnes and 0.53 million tonne respectively.

SAIL has fulfilled the requirement of iron ore for its steel plants from its captive mines by producing about 23.18 million tonnes during 2014-15. The production of fluxes from captive mines during 2014-15 was 2.09 million tonnes. During 2014-15, raw coal production in captive collieries of SAIL was 0.65 million tonnes.

4.2.5 Manpower

The Manpower Strength of SAIL as on 1st April, 2015 was 93352. The Manpower strength of SAIL as on 01.01.2016 was 90184 (Executive 14193 / Non-Executive 75991). Achieved a reduction of 3168 manpower during the year 2015-16 (upto December, 2015).

Facilitation of proud recipients of Vishvakarma Rashtriya Award Winners 2013 (Awarded in 2015) from SAIL

4.3 Rashtriya Ispat Nigam Ltd. (RINL)

Rashtriya Ispat Nigam Limited (RINL), a Navratna PSE, is the corporate entity of Visakhapatnam Steel Plant - the country's first shore-based integrated steel plant at Visakhapatnam, Andhra Pradesh. RINL has completed Expansion for doubling the capacity from 3 Mtpa to 6.3 Mtpa. Stabilization of the units is in progress for ramping up the production progressively. The expansion has been funded mostly through internal accruals. The enterprise employed 17,954 regular employees (executives 5552 non-unionised supervisors (JOs) 572 and workmen 11,830), as on 01.01.2016.

The company has one subsidiary, Eastern Investment Limited (EIL), which in turn has 2 subsidiaries, M/s Orissa Mineral Development Company Ltd (OMDC) and M/s Bisra Stone Lime Company Ltd (BSLC). The company has partnership in RINMOIL, RINL Powergrid TLT Ltd. and ICVL in the form of Joint Ventures.

Main activities of RINL include production of steel products in the longs category from its operating unit at Visakhapatnam and marketing them through a wide marketing network of 5 Regional Offices, 24 Branch Sales Offices, 23 Stockyards and 6 Consignment Sales Agents (CSAs) which cater to the delivery requirements across the country.

The principal products of RINL include Rebars, Wire Rods, Rounds and Structurals. The company also markets Billets, Blooms, Pig Iron and by-products like Coal Chemicals (Ammonium Sulphate, Benzol products etc.) and slag.

Special Bar Mill of capacity to produce 7.5 lakh tons per annum of plain rounds in straight length and in coil form with free size rolling for customized sizes commissioned at RINL

4.3.1 Financial Performance

RINL registered Gross Sales of Rs.11675 crore during 2014-15 and earned Rs. 62 crore Profit after Tax. RINL has paid an interim dividend of Rs.25.35 crore to the Government for the performance year 2014-15. Net worth of The Company was Rs.10404 crore as on 31.12.2015.

4.3.2 Production Performance

The physical performance in terms of production of Crude Steel and Finished Steel is given below:

Item	2014-15	2015-16 (Apr-Dec)
Crude Steel (000t)	3297	2742
Saleable Steel (000t)	3017	2528

RINL's Value Added steel production stood at 18.63 lakh tonnes (Apr'15 to Dec'15).

4.4 NMDC Ltd.

NMDC Limited is a "Navratna" public sector company 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.

Incorporated on November 15, 1958, NMDC has been actively contributing to development of the nation for five decades and grown from strength to strength on its journey to nation building. From a single-product-single-customer company, NMDC has grown to be a major iron ore supplier to the domestic steel industries. NMDC is also doing exploration and prospecting works for high value minerals like diamond in Andhra Pradesh and gold in Tanzania.

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, Andhra Pradesh.

All the iron ore production units of NMDC have been accredited with ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certifications. The R&D Centre of NMDC is accredited with ISO 9001:2008 certification.

As part of the Greenfield expansion / diversification programme, NMDC is setting up an Integrated Steel Plant of 3 MTPA capacity at Nagarnar, Chhattisgarh. The project is estimated to cost about Rs.15,525 Crore. All major technological packages and auxiliary packages have been awarded and construction work is in progress.

NMDC is in the process of expanding its business through forward integration in both Greenfield and Brownfield projects by setting up (a) 1.2 mtpa Pellet Plant at Donimalai in Karnataka (b) 2 mtpa Pellet Plant at Nagarnar along with 2 mtpa Beneficiation Plant at Bacheli interconnected by a Slurry Pipeline between Bacheli and Nagarnar in Chhattisgarh.

NMDC has planned to expand its business through horizontal integration in the fields of Coal, Rock Phosphate, Lime Stone, Gold and Diamond. NMDC has already diversified its activities in the field of renewable energy by setting up Wind Mill in Karnataka and is exploring the possibilities of solar energy.

Work in Progress of various units of NMDC Steel Plant at Nagarnar

4.4.1 Capital Structure

The Authorized share capital of the company is Rs.400 crore. The paid up equity share capital is Rs.396.47 crore as on 31.12.2015, out of which 80% is held by the Government of India and the balance 20% by the financial institutions/banks/individuals/employees etc.

4.4.2 Financial Performance

The Company recorded turnover of Rs.12356 crore in the financial year 2014-15. The post-tax net profit for the year was Rs 6421.86 crore. The Company has paid dividend @ 855% of paid up equity capital for the year 2014-15. The sales turnover and net profit after tax upto December, 2015 were Rs 4925.85 crore and Rs 2475.40 crore respectively.

4.4.3 Production Performance

The details of the actual production are given below:

Items	2014-15	2015-16 (upto Dec.'15)
Iron ore (in LT)	304.41	197.91
Diamonds (in Carats)	35085	24640
Sponge Iron (in Tonnes)	28994	4480

4.4.4 Manpower

The Manpower strength of NMDC as on 31.03.15 was 5490 and as on 31.12.15, it was 5641.

4.5 MOIL Ltd.

MOIL is a Schedule "A" Miniratna Category-I Company. It was originally incorporated as Manganese Ore (India) Limited in the year 1962. Subsequently, name of the Company was changed from Manganese Ore (India) Limited to MOIL Limited during the Financial year 2010-11.

During the Financial year 2010-11, MOIL got listed on 15th December, 2010 on National Stock Exchange and Bombay Stock Exchange. After the listing, the shareholding in the company, of Govt. of India, Govt. of Maharashtra and Govt. of Madhya Pradesh is 71.57%, 4.62% and 3.81% respectively. Rest 20% shares are held by the public.

Newly commissioned Vertical Shaft at MOIL's Munsar Mine


MOIL produces and sells different grades of Manganese Ore. They are:

- High Grade Ores for production of Ferro Manganese
- Medium grade ore for production of Silico Manganese
- Blast furnace grade ore required for production of hot metal; and
- Dioxide for dry battery cells and chemical industries.

MOIL has set up a plant based on indigenous technology to manufacture 10,000 MT per annum capacity of Electrolytic Manganese Dioxide (EMD). This product is used for the manufacture of dry battery cells. EMD produced by the Company is of good quality and well accepted by the market. A Ferro manganese plant having a capacity of 10,000 MT per annum was also set up in 1998 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, Distt. Dewas in Madhya Pradesh.

4.5.1 Capital Structure

The Authorised and paid-up Capital of the Company are Rs. 250 (Two Hundred Fifty) crore and Rs.168.00 crore respectively, as on 31st Dec., 2015.

4.5.2 Financial Performance

The total turnover and profit after tax of the Company during the year 2014-15 was Rs. 823.25 crore and Rs. 428.01 crore respectively. The Company has paid dividend of Rs.142.80 crores in 2014-15.

4.5.3 Production Performance

Items	2014-15	2015-16 (up to Dec.15) (Provisional)
Manganese Ore('000 Tonnes)	1139	745
E.M.D. (MT)	950	482
Ferro Manganese(MT)	10045	5521

4.6 MSTC Ltd.

MSTC Limited formerly known as Metal Scrap Trade Corporation Limited was set up in September 1964 for regulating export of ferrous scrap from India. The status of the Company underwent a change in February 1974 when it was made a subsidiary of Steel Authority of India (SAIL). In the year 1982-83, the Corporation was converted into an independent PSU under the Ministry of Steel. It was the canalizing agency for import of carbon steel melting scrap, sponge iron, hot briquetted iron and re-rollable scrap till February 1992. It was also the canalizing agency for import of old ships for breaking, Import of such items were decanalized and put under OGL with effect from August 1991.

4.6.1 Activities of the Company:

E-commerce: This segment of business includes disposal of Scrap, sale of Coal, Ferro Manganese Ore, Iron Ore, Chrome Ore, human hair, agri-produce etc. through e-auction and purchase of various raw materials and other items through e-procurement. The list of Principals includes Ministry of Defence, State Governments, Forest Department and PSUs like Indian Oil Corporation Ltd., Oil & Natural Gas Corpn. Ltd, State Electricity Boards, Bharat Sanchar Nigam Ltd, Hindustan Petroleum Corpn. Ltd and Tirupati Tirumala Devsthanam etc. The mode of disposal includes e-auction, e-tender, e-reverse auction etc. Besides, MSTC also e-auctions coal from Coal India Ltd & Singareni Collieries Co. Ltd (SECL), Ferro Manganese and Manganese Ore from MOIL Ltd. MSTC also conducts e-Auction for sale of Iron Ore in Karnataka, Goa, Odisha and Chrome Ore for M/s Odisha Mining Corporation Ltd., a Government of Odisha enterprise, coal mines and non-coal mining blocks of various States.

Trading: MSTC is engaged in Import/Export and domestic trade of mainly bulk industrial raw material for actual users. Division looks after sourcing, purchase and sales of industrial raw materials like Heavy

Melting Scrap, Low Ash Metallurgical Coke, HR Coil, Naphtha, Crude Oil, Coking Coal, Steam Coal etc on behalf of purchasers in secondary steel sector & petrochemical sector and thermal coal for State owned power utilities.

4.6.2 Capital Structure And Share Holding Pattern:

As on 31.03.2015, the Authorized Capital of the Company is 5,00,00,000 Equity Share of Rs.10/- each of Rs.50.00 Crore and Paid up Capital 88,00,000 Equity Share of Rs.10/- each of Rs.8.80 Crore. Bonus Share issued at 3:1 in 2012-13.

The share holding pattern of the company is as below:

Sl. No.	Name of Share holder	% of Holding
1.	Government of India	89.85
2.	Others	10.15
	Total	100.00

4.6.3 Financial Performance

Items	2014-15	2015-16 (Upto Dec.2015)
Turnover	5424.97	2138.67
Operating Profit	130.19	38.19
Profit before Tax	131.47	36.99
Profit after Tax	90.99	24.19

* Provisional

4.7 Ferro Scrap Nigam Ltd. (FSNL)

FSNL is a wholly owned subsidiary of MSTC Ltd. with a paid up capital of Rs.200 lakhs. FSNL is rendering its specialized services of Scrap & Slag management to plants throughout India. The main objective of FSNL is to generate "Wealth from Waste" by recycling Slag & Scrap generated during Iron & Steel making process as a waste. FSNL is not only saving country's valuable mineral resources but also contributing to protect the environment.

FSNL is a multi locational company having its Registered & Corporate office at Bhilai-Chhattisgarh and presently providing services at SAIL - Rourkela, Burnpur, Bhilai, Bokaro, Durgapur, Bhadravati, Salem, RINL-Vishakhapatnam, NINL-Duburi, BHEL-Haridwar, RWF-Bengaluru & Air India- Mumbai.

4.7.1 Physical Performance

Items	2014-15	2015-16 (Apr-Dec)
Recovery of Scrap (lakh metric tonnes)	23.07	20.06
Market Value of Production (Rs. in crore)	1015.10	882.84

* Provisional

4.7.2 Financial Performance

Items	2014-15	2015-16 (Apr-Dec)
Total Turnover i.e, Service charge realised including misc. Income, etc.	27578.38	24313.30
Gross Margin Before Interest & Depreciation	3625.53	2295.04
Interest & Depreciation	1089.13	953.96
Profit Before Tax (PBT)	2536.40	1341.08

* Provisional


4.8 Hindustan Steelworks Construction Ltd. (HSCL)

Hindustan Steelworks Construction Limited (HSCL) is one of the major construction agencies established as a CPSE in 1964 under the administrative control of Ministry of Steel. The mandate for its incorporation was to mobilize indigenous capability for putting up integrated steel plants in the country. The organization rose to the occasion and successfully met the challenge by bringing together competent human resources and mobilizing a fleet of updated construction equipment. HSCL contributed immensely in setting up of almost every major steel plant in India. As the Company grew in resources and expertise, it diversified in other areas like Power Plants, Mining Projects, Irrigation Projects including Dams and Barrages, Oil Refineries, Railways, Airports, Buildings and Commercial Complexes, Rural Roads, Highways, Flyovers, minor and major Bridges for Railways and Road Traffic, infrastructure for Educational Institutions, Health Centers and Hospitals etc.. Today, HSCL is an ISO 9001-2008 Company and its capabilities cover almost every field of construction activities.

At present, the Company carries out a number of project packages under the capacity expansion programme of SAIL and RINL along with regular Operation and Maintenance jobs of these plants. HSCL is currently executing major projects like construction of Educational Infrastructure of KVS, NVS, BHU, CITS at Sarnath, Law University in Bhubaneswar, Aligarh Muslim University Centre at Jangipur in West Bengal has been completed and infrastructure development for AMU at Aligarh has been taken up, Engineering College at Purulia, Sri Hari Singh Gaur University at Sagar in MP, ITI s at different locations in West Bengal, Food Godowns at different locations and other Building and Commercial Complexes under State Government Departments and PSUs. Railway embankments with minor and bridges are also being executed by HSCL under Railways.

4.8.1 Capital Structure

The Authorised and Paid-up Share Capital as on date is Rs.150 Crore and Rs.117.10 crore respectively.

4.8.2 Financial Performance

Starting with a modest Rs.5 Crore in 1965-66, the Company achieved a Turnover of Rs.1528.70 crore in 2014-15. During 2015-16, the Turnover achieved till 31.12.2015 is Rs. 918.88 crore (unaudited).

Turnover and Order Booking registered CAGR of 17.79% and 15.89% respectively during the last nine years from 2005-06 till 2014-15; much more than the overall industry growth rate of the country. The financial results also are improving with the Company earning an Operating Profit of Rs.116.77 crore during FY15 with CAGR 17.55% since 2005-06.

Order Booking till the 3rd Quarter of 2015-16 has also been encouraging with Rs.1654.46 Cr. worth of Orders secured despite uncertainties prevailing in regard to restructuring of the Company. Rs.16847 crore worth of orders has been executed by the Company till 31.12.2015 since inception, out of which Rs.7075 crore coming from steel sector.

4.9 MECON Ltd.

MECON Limited, a Miniratna CPSE under Ministry of Steel, is one of the leading multi-disciplinary Design, Engineering, Consultancy and Contracting organization in the field of Metals and Mining, Power, Oil & Gas, Infrastructure, Refineries & Petrochemicals, Pipelines, Roads & Highways, Railways, Water Management, Ports & Harbors, General Engineering, Environmental Engineering and other related/ diversified areas with extensive overseas experience. MECON provides full range of services required for setting up of Greenfield and Brownfield projects from Concept to Commissioning including Turnkey execution. MECON is an ISO:9001-2008 accredited company and is registered with International Financial Institutions like the World Bank, Asian Development Bank, African Development Bank, European Bank of Reconstruction & Development and United Nations Industrial Development Organization. MECON has collaboration agreements with leading International organisations for gaining requisite resources for enhancement of its cutting edge technology.

MECON has successfully delivered/ delivering landmark projects of National importance like Second Launching Pad at Shriharikota, India's first indigenous launching pad at Satish Dhawan Space Centre, SHAR; State of Art Campus for Nalanda University, Indian Institute of Agricultural Biotechnology, IIT Indore, Geo-Technical Centrifuge Facility at IIT Bombay (the 6th of its kind in the world), funded by DST, DRDO & Ministry of HRD; Asia's biggest coal handling facility from harbor to power plant with belt conveyor system of 11 kms for TNEB; Project Seabird of Indian Navy (India's 1st Ship repair facility) are to name a few.

MECON has also strengthened its footprint in International market by providing World Class Design, Engineering & Consultancy Services for about 130 Projects in different countries. MECON has an office in Nigeria to effectively cater to West Asia and African Countries.

Panoramic View of MECON, Ranchi

4.9.1 Financial Performance

During the financial year 2013-14 there was deficit in company's order booking due to general economic slowdown that affected the country as a whole. As a result the turnover of the company was Rs.389.92 crore during the FY 2014-15. Net profit before tax of the Company has also gone down from Rs.68.69 crore during 2013-14 to Rs.33.01 crore during 2014-15. The Net Worth of the Company has also decreased to Rs.410.23 crore as on 31.03.2015 as compared to Rs.416.80 crore as on 31.03.2014 due to redemption of 5% Non-Cumulative Redeemable Preference Share Capital.

4.10 KIOCL Ltd.

KIOCL Limited an 100% EOU, ISO 9001-2008, ISO 14001-2004 and ISO 18001-2007 Company established in April, 1976 to meet the long term requirements of Iran. An Iron Ore Concentrate Plant of 7.5 million tonnes capacity was set up at Kudremukh. The project was completed as per schedule with the funds provided by Government of India. The mining operation at Kudremukh was stopped as per the verdict of Hon'ble Supreme Court w.e.f.1.1.2006.

As a diversification measure, the Government approved the construction of a 3 million tonnes per year capacity Pellet Plant in Mangalore in May, 1981. The capacity of the Pellet Plant was enhanced to 3.5 Million tonnes with additions/modifications. The plant went into commercial production in 1987 and is now catering to both domestic and international customer.

KIOCL also has its Pig Iron Complex (Blast Furnace Unit) at Mangalore for manufacturing and supply of foundry grade Pig Iron for domestic market. However, the operation of this unit is kept under suspension since 2009 due to negative contirbution.

4.10.1 Production Performance

Production upto December 2015 is 0.10 million tonnes.

Pellet Shipment to Iran - KIOCL

4.10.2 Financial Performance

Sales Revenue

Year	PP Unit	BF Unit
2015-16 (April - Dec. 2015)	107.20	1.00
2014-15	626.87	1.97

An overview of the performance of KIOCL during the year 2015-16 upto December, 2015 together with actuals for the previous three years, is indicated below:

(Rs. in crore)

Particulars	2014-15	2015-16 (Apr-Dec)
Total value of Sales	628.84	108.20
Gross Margin	63.35	(113.58)
Profit after Tax	30.82	(139.48)

4.11 EIL, BSLC & OMDC

EIL is a shell company and holding company of OMDC and BSLC, which are engaged in mining of Iron & Manganese Ore and Limestone and Dolomite respectively.

After the restructuring as approved by the Union Cabinet, EIL became subsidiary of RINL and holding company of OMDC and BSLC. EIL, BSLC and OMDC became PSU's w.e.f. 19.03.2010.

(a) Eastern Investment Limited (EIL)

EIL is an Investment Company and is the holding company of OMDC and BSLC. OMDC and BSLC are mining companies. The Authorized Capital of the company is Rs.13.50 crore and Paid up Capital is Rs. 1.42 crore.

Financial Performance

(Rs. In Crore)

Description	2014-15	2015-16 (Apr-Dec)
Income	1.22	1.84
Expenditure	13.84	0.21
Profit After Tax (PAT)	(-)12.72	1.21

(b) The Orissa Minerals Development Company Limited (OMDC)

OMDC is operating six mining leases of Iron Ore and Manganese Ore in Odisha. This is one of the oldest mining companies of Iron Ore and second to NMDC in mining of iron ore under the Central Government. OMDC mines are located in the tribal dominated area of Keonjhar District and are major source of employment to the local people. The company has four crushing and screening plants for supply of sized and calibrated iron ore to the customers. The company had set up a small sponge iron plant at Thakurani in 2004.

The Authorized as well as Paid up Capital of the Company is Rs. 0.60 Crore.

Financial Performance

(Rs. In Crore)

Description	2014-15	2015-16 (Apr-Dec)
Other Income	74.66	57.15
Profit After Tax (PAT)	17.70	12.21

(c) The Bisra Stone Lime Company Limited (BSLC)

BSLC is operating one lease of limestone and dolomite in Sundargarh District of the State of Odisha. It supplies limestone and dolomite mainly to SAIL steel plants located in the eastern region. This is a century old company and is a major source of employment to the tribal people in the area.

The Authorized Capital of the company is Rs. 87.50 crore and Paid up Capital is Rs. 87.29 crore.

Physical Performance

(in tonnes)

Description	2014-15	2015-16 (Apr-Dec)
Production		
Dolomite	102499	308640
Limestone	2229	-
Despatch		
Dolomite	107509	350460
Limestone	-	-

Financial Performance

(Rs. in Crore)

Description	2014-15	2015-16 (Apr-Dec)
Income	8.18	24.14
Profit/Loss After Tax (PAT)	(-)27.27	(9.13)


CHAPTER-V

PRIVATE SECTOR

5.1 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 contribute substantial value addition in terms of quality, innovation and cost effectiveness.

5.2 The leading steel producers in the private sector, who are in the process of capacity expansion and adding new capacities, are given in the table below:

(In million tonnes)

Sl. No.	Name of Steel Company	Existing Capacity*	Proposed Brownfield Capacity Expansion upto 2016-17	Proposed Greenfield Capacity Expansion upto 2016-17	Proposed Total Capacity in 2016-17* [Col 3=4+5]
		(mt)	(mt)	(mt)	(mt)
1	2	3	4	5	6
1	VISA Steel Ltd	0.5	0.5	0	1.0
2	Jindal Stainless Ltd	1.72	0	0	1.72
3	Monnet Ispat & Energy Ltd	1.8	0.3	0	2.1
4	Electrosteel Steels Ltd. **	1.45	0	1.06	2.51
5	Bhushan Power & Steel Ltd	2.5	0	0	2.5
6	Bhushan Steel Ltd.	5.6	0	0	5.6
7	Essar Steel Ltd.	8.54	0	0	8.54
8	Jindal Steel & Power Ltd	4.0	0.35	2.5	6.85
9	Tata Steel Ltd	9.6	0.6	3	13.2
10	JSW Steel Ltd.	16.6	3.7	0	20.3
*in terms of crude steel, till December 2015; mt=million tonnes;**in terms of hot metal					

Note:
i) Source of data in col. 3 is JPC (prov.).
ii) Data on upcoming capacity pertains to 2016-17 only, as reported by the Steel companies.

5.3 JSW Steel Ltd.

JSW Steel, the flagship company of JSW Group, is India's leading steel producer and among the world's illustrious steel companies. It offers a wide gamut of steel products that include Hot Rolled, Cold Rolled, Bare & Pre-painted Galvanised and Galvalume®, TMT Bars, Wire Rods and Special Steel. Pioneering the use of innovative technology and the drive to stay on the leading edge of technical advancement, has led to partnerships with global sector-leaders such as JFE Steel, Marubeni Itochu Steel, Praxair and Severfield Rowen Plc. JSW Steel Coated Products Ltd., is 100% subsidiary of JSW Steel with its state-of-the-art manufacturing facilities in Maharashtra producing Coated Steel products. The industry has acknowledged JSW for exhibiting values in Leadership, Market Expansion, Corporate Integrity and Financial Success and awarded the efforts at multiple fora, namely, Prime Minister's Trophy for the Best Integrated Steel Plant 2012-13, Steel Minister's Trophy for 2013-14, Platts Global Metal Awards 2015 & 2013, amongst others. JSW Steel has been ranked 6th amongst top 36 "World Class" Steel Makers by World Steel Dynamics in June 2015. By 2025, JSW Steel aims to produce 40 million tons of steel annually.

4MT Iron making zone of JSW Steel Ltd.

5.4 TATA Steel Ltd.

Tata Steel, the flagship company of the Tata Group is a Fortune 500 company. Tata Steel Group is the world's second-most geographically diversified steel producer, employing over 80,000 people in nearly 50 countries. The Group's vision is to be the world steel industry benchmark in "Value Creation" and "Corporate Citizenship" through the excellence of its people, its innovative approach and overall conduct. Tata Steel's global journey began with the aim of achieving a larger geographic footprint and to service a global customer base, including the mature markets of UK and Europe and the fast-growing markets in South East Asia and China. Apart from its Indian operations, the Tata Steel Group today comprises mainly its European operations through Tata Steel Europe (www.tatasteeleurope.com) and its South-East Asian operations through Tata Steel Thailand (www.tatasteelthailand.com) and Natsteel (www.natsteel.com.sg).

Tata Steel Limited: Blast Furnance

Indian Operations

Established in 1907, the Jamshedpur Works of Tata Steel has a crude steel production capacity of approximately 10 MTPA and a variety of finishing mills. Tata Steel has a significant presence in allied and downstream areas through its Strategic Business Units, namely Tubes Division, Bearings Division, Wire Division, Ferro Alloys & Minerals Division and Tata Growth Shop, which develops and manufactures specialist, high-precision industrial equipment. The Company is setting up a greenfield steel project at Kalinganagar in Jajpur district of Odisha. Tata Steel is also examining further capacity enhancement through greenfield projects in Jharkhand, Chhattisgarh, Karnataka, etc. The Company also possesses and operates captive iron ore, coal and chrome ore mines. Tata Steel is a valued member of the World Steel Association (worldsteel) and has accepted a set of Sustainability Indicators to measure its triple bottomline performance within the steel industry. Tata Steel is a founder member of the United Nations Global Compact Programme. The Company is also guided by frameworks such as the UN Millennium Development Goals.

5.5 Essar Steel India Ltd.

Essar Steel India is one of India's leading steel producers with an annual production capability of 8.54 MTPA supported by its pellet facilities in Visakhapatnam and Odisha respectively. An additional 6 MTPA pellet facility is under commissioning. The state-of-art facilities comprise iron ore beneficiation, Pellet making, iron making, steel making and downstream facilities, including a cold rolling mill, a galvanizing and pre-coated facility, a steel-processing facility, an extra-wide plate mill and 3 pipe mills with coating facilities. Essar Steel uses information technology extensively for its operation to ensure consistent quality of its products. It produces over 300 grades of steel conforming to quality standards of international certification agencies like API, ABS, NACE, Lloyd's Register to name a few. The products, many of which are import substitute products, cater to the requirement of a wide cross section of industries. Essar Hypermart, a pioneering initiative of Essar Steel, caters to the requirements of the SME segment, which normally does not have access to mill material directly. Sustainability has been given due importance and the company is on course to becoming a zero-waste company.

Essar's Steel Service Center

5.6 Jindal Steel & Power Ltd.

Jindal Steel & Power Ltd. has Steel Plants (ISPs) in operation at Raigarh (Chhattisgarh), Angul(Odisha) & Patratu (Jharkhand). It has conventional Rotary Kiln based DRI & BF for metallics at Raigarh. It is implementing a Steel Plant at Angul . It is also operating a Bar Mill & Wire Rod Mill at Patratu with inter - plant transfer of ingots from Raigarh & Angul.

5.7 Bhushan Steel

Bhushan Steel Ltd. (BSL), the flagship Company of the Group, is a steel producer with production facilities at Sahibabad (U.P), Khopoli (Maharashtra) and Meramandali (Odisha). Steel is produced at the Meramandali plant while Secondary steel is produced at the Sahibabad and Khopoli plants and supplied mainly to the Original Equipment Manufacturers (OEMs) of automotive parts and consumer durable products. The Company manufactures primary steel products, such as hot-rolled coils and billets at Meramandali, which is used as raw material in its secondary steel manufacturing facilities at Sahibabad & Khopoli.

Bhushan Steel Plant

Major secondary steel products of the Company comprise cold rolled and close annealed (CRCA) steel, galvanized (zinc added) sheets and coils, 'galume' (aluminum added and branded) sheets and coils, color-coated sheets and coils, precision tubes, hardened and tempered (H&T) steel strips and high-tension steel strapping (HTSS).

Electrosteel Steels Limited

5.8 Electrosteel Steels Ltd.

Electrosteel Steels Limited is one of the pioneers Company in the manufacturing of Ductile Iron (DI) pipe. The company is setting up 2.51 MTPA Greenfield Steel & DI Pipe Plant based on Iron Ore processed through Blast Furnace (BF)-Basic Oxygen Furnace (BOF)-Continuous Casting (CC)-Hot Rolling Mill Route.

5.9 Monnet Ispat and Energy Ltd.

Monnet Ispat & Energy Ltd, is a steel manufacturer in the country having integrated steel plant of 1.8 MTPA, comprising 0.8 MTPA sponge Iron, 0.7 MTPA Blast Furnace, 0.50 MTPA rebar mill, 0.2 MTPA structural mill, 230 MW Power Plant, 0.75 Sinter Plant, 1.20 MTPA Palletisation Plant, 1.00 MTPA Coal beneficiation plant, at Raipur & Raigarh in the State of Chhattisgarh. Approx. Rs. 7600 crore have already been invested and shall further expand its capacities from 1.8 MTPA to 2.4 MTPA with additional facilities of coke oven, blast furnace, sponge iron, power, cement grinding unit, lime dolomite plant, rolling mill, slag crushing & automisation plant etc. . The re-bars of the company under the brand name "Monnet Steel " has been well accepted across the Country.

Monnet Ispat and Energy Limited Plant

5.10 Jindal Stainless Limited

Jindal Stainless Limited is ranked amongst top 10 stainless steel manufacturers in the world, with a capacity of 1.8 million tons. A leader and a name synonymous with Enterprise, Excellence and success. Jindal Stainless Limited has crafted its success story by fully integrating its operations based on a strategy of both, backward and forward integration, starting from mining, melting, casting, hot rolling to cold rolling and further value additions. An ISO: 14001 compliant, the Company's product range includes: Ferro Alloys, Stainless Steel Slabs, Blooms, Hot Rolled Coils, Plates and Cold Rolled Coils/Sheets, Stainless Steel Strips for Razor Blades Steel and Coin Blanks for mints in India and European Union.

5.11 VISA Steel Ltd.

VISA Steel Limited (VSL) is operating a 0.5 MTPA Special Steel Plant, 180,000 TPA Ferro Chrome Plant with 75 MW Captive Power Plant and 0.4 million TPA Coke Plant at Kalinganagar Industrial Complex in Odisha. VSL plans to expand the facilities to 1 million TPA Special Steel Plant, 250,000 TPA Ferro Chrome Plant and 0.8 million TPA Coke Plant.

The Special Steel business includes 500,000 TPA Steel Melt Shop (with 70t EAF, LRF & VD), 500,000 TPA Bar & Wire Rod Mill, 225,000 TPA Blast Furnace and 300,000 TPA Sponge Iron Plant. The products include Special Steel Wire Rods, Bars, Spring Steel Flats, RCS, Hex-Bars, Billets & Blooms.

The Ferro Chrome business comprises 180,000 TPA Ferro Chrome Plant (6 x 18 MVA Sub-merged Arc Furnaces) with 75 MW Captive Power Plant. The products are sold to Stainless Steel and Special Steel plants in Japan, Korea, China, Europe & America.

The Coke business is operated through VISA SunCoke Limited (VSCL), a subsidiary of VISA Steel in joint venture with SunCoke Energy, USA. VSCL is operating a 400,000 TPA Coke Oven Plant along with associated steam generation units. VSCL offers quality Coke to various Blast Furnaces and Ferro Alloys Plants.

Visa Steel Limited


CHAPTER-VI

RESEARCH AND DEVELOPMENT

6.0 Research and Development for Steel Sector

The first R&D Laboratory in the steel sector in India was set up in 1936 at Tata Iron & Steel Company (TISCO). SAIL set up their Corporate R&D Centre in 1972 at Ranchi. R&D facilities in newer plants of JSW Steel, Bellary and Essar Steel, Hazira came into being in 2000's. Government has also set up several National Laboratories under CSIR and amongst them, National Metallurgical Laboratory (CSIR-NML), Jamshedpur and Institute of Minerals and Materials Technology (CSIR-IMMT), Bhubaneswar are engaged in carrying out R&D in the area of iron & steel. In addition, some academic institutes, like IITs and NITs, are also engaged in carrying out sponsored research work in the area of iron and steel.

The steel companies like SAIL, Tata Steel, JSW Steel and Essar Steel have accomplished some significant work in the area of raw material beneficiation, agglomeration and product development. However, the major focus of work in these companies generally relates to problem solving approach and/ or incremental technology development to address the present and short term needs of various production units. The R&D investment in the leading steel companies in the country ranges from 0.05-0.5% of the sales turnover as against 1-1.5% by leading steel companies abroad.

6.1 Governments Initiatives for Promotion of R&D in Iron and Steel Sector

In order to provide accelerated thrust on R&D, Ministry of Steel (MOS) is encouraging Research and Development activities both in public and private steel sectors. The following are the initiatives of Ministry of Steel to promote R&D in the sector:

(i) R&D with Financial assistance from Steel Development Fund (SDF)

Government has constituted an Empowered Committee (EC) under the Chairmanship of Secretary (Steel) for approval and monitoring of R&D projects under this scheme. The EC has met 24 times and approved 83 R&D projects costing Rs. 696.27 crore with SDF assistance of Rs. 389.63 crore. Out of 83 R&D projects, 47 projects have been completed yielding benefits to the industries, 11 projects have been stopped after mid term review and 25 projects are in progress. Research results of some of the projects have been implemented by the steel industry yielding benefits in respective area.

(ii) R&D with Financial assistance from Plan Fund

Based on the recommendations of the Working Group on Steel Industry, a new scheme i.e. Scheme for **Promotion of R&D in Iron and Steel Sector** was started in 11th Five Year Plan with an outlay of Rs. 118.00 crore from Plan fund. Under this scheme, R&D was pursued in three major areas namely (i) development of innovative/path breaking technologies, (ii) beneficiation & utilizing Indian iron ore fines and non-coking coal and (iii) improvement of quality of steels produced through induction furnace route.

Being a continuous scheme, the aforesaid scheme was continued in the 12th FY Plan with an allocation of Rs. 200 crore. In the 12th Five Year Plan the following two addition objectives were included in scheme, namely, (i) development of technology for Cold Rolled Grain Oriented (CRGO) steel sheets and other value added innovative steel products and (ii) to pursue R&D on any other subject of national importance concerning the Iron & Steel sector.

There is a Project Approval and Monitoring Committee (PAMC) under the Chairmanship of Secretary (Steel) for approval and monitoring of R&D proposals/projects under this scheme. So far 12 R&D projects have been approved by the PAMC, with a total cost of Rs.149.17 crore involving Plan Fund of Rs. 102.91 crore.


(iii) Development of technology for Cold Rolled Grain Oriented (CRGO) Steel Sheets

The technology for production of CRGO Steel Sheet is not readily available as only a handful of manufacturers are there worldwide and they are reluctant to provide the technology. The demand for CRGO Steel Sheets in the country is 2 -2.5 Lakh TPA which is expected to double by end of 12th Plan period. Most of the demand is met from imports with only a marginal quantity is manufactured in India, which is also based on imported semi-finished inputs. It is, therefore, imperative to develop indigenous capabilities for production of CRGO steel sheets in the country.

Under the above backdrop, Ministry of Steel is pursuing a joint collaborative research proposal for 'Development of Technology for Cold Rolled Grain Oriented (CRGO) steel sheets'. NML Jamshedpur, Rastriya Ispat Nigam Limited (RINL), Tata Steel Limited Jamshedpur and Ministry of Steel are the stakeholders in the initiative and will share the cost of the project. Ministry of Steel has earmarked Rs. 150 crore for the initiative from Plan Fund from the overall allocation of Rs. 200 crore in 12th Five Year Plan. The DPR of the project has been completed in Jan 2016. The DPR is being examined by the stakeholders for approval. Project will commence upon final approval by the stakeholders.

(iv) Steel Research & Technology Mission of India

Ministry of Steel is facilitating setting up of an innovative institutional mechanism, namely, Steel Research & Technology Mission of India (SRTMI), to spearhead R&D activities of national importance through joint collaborative research programmes in steel sector. SRTMI will be an Industry led initiative and will be setup as a registered society in close co-operation amongst the steel companies, Ministry of Steel, academia and relevant R&D institutions in the country. SRTMI will be governed by a Governing Board of CEOs of steel and associated companies, domain experts of national and international repute, and one nominee from Ministry of Steel. The Executive Functioning of SRTMI will be carried out by the Director, SRTMI, who will be assisted by a supporting structure. The society has been registered and follow up action is in progress.

6.2 R&D by Steel Companies

6.2.1 Steel Authority of India Limited (SAIL)

Research & Development Centre for Iron & Steel (RDCIS), is pursuing 85 R&D projects in the current year 2015-16, out of which 48 projects are scheduled for completion by March, 2016. Pursuing R&D in different areas to provide technological inputs to SAIL plants / units with thrust on cost reduction, value addition, quality improvement and development of new products.

During 2015-16, RDCIS has filed 19 patents and 26 copyrights during April to December, 2015. As many as 64 technical papers were published and 117 papers were presented. In addition, RDCIS undertook contract research work and provided significant consultancy services and know-how to organizations outside SAIL, yielding external earning of Rs. 58.38 lakhs during April- December, 2015.

In recognition of the contributions made by the Centre, RDCIS has bagged several prestigious awards during April, 2015 to December, 2015 like The BT- STAR PSU Award for Excellence in Innovation (Tech/ R&D), National Metallurgist (Industry), Metallurgist of the Year, Young Metallurgist of the Year, SAIL Award etc.

R&D Efforts and Achievements

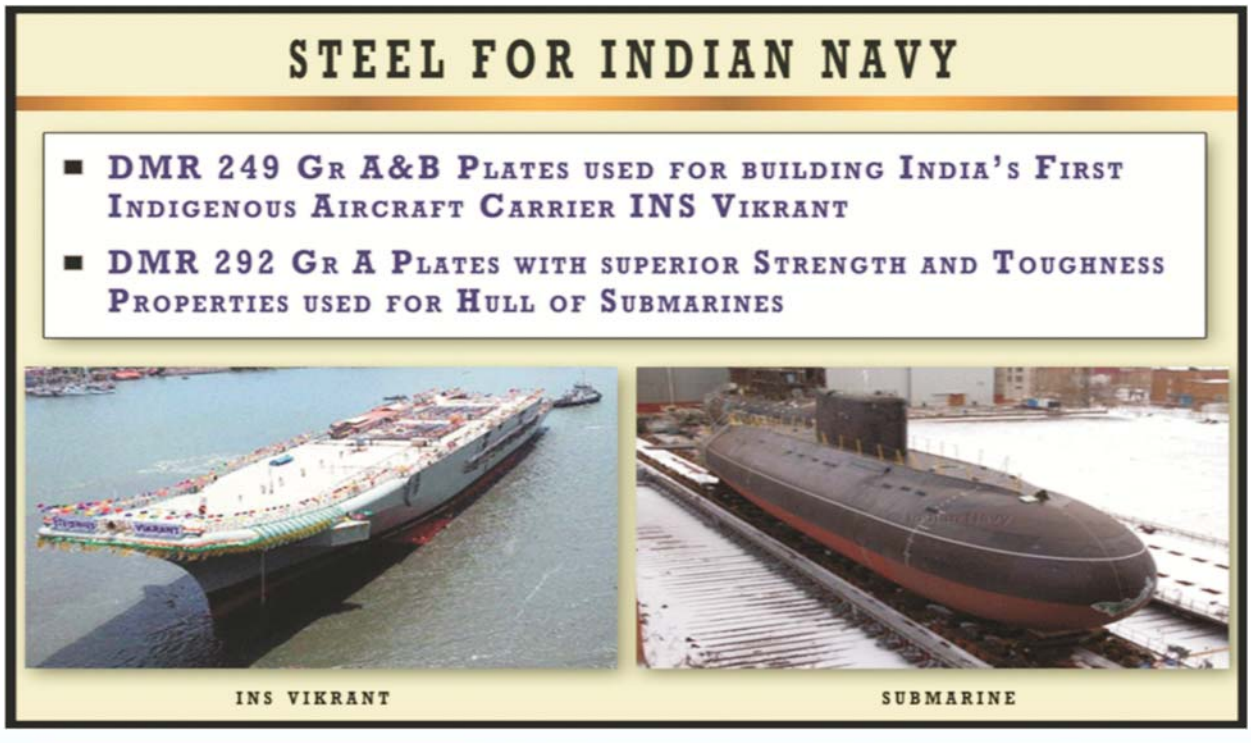
- Optimization of casting process parameters for improving slab quality in caster #3, SMS-II, RSP
- Prediction of fault and increase the availability of equipment through elemental analysis of lubricant, DSP
- Service life improvement of liners of raw material hopper of SP #3, BSP
- Optimization of slag chemistry in BF #5 , RSP
- Assessment of high temperature properties of iron bearing materials for bigger BF , ISP
- Investigation of high temperature properties of Iron bearing materials used in blast furnaces, BSL
- Improvement in coke quality by blend formulation and optimization of operating parameters of COB#10, ISP

- Introduction of microstructure model based Virtual Test Certification (VTC) and Run-Out-Table (ROT) cooling control system at HSM, RSP
- Development of impact resistant refractories for steel ladle to enhance ladle availability and lining life at SMS-II, RSP
- Improvement in surface quality of galvanized product of HDGL, CRM, BSL
- Development of an expert system for selection of wear resistant materials for steel plant applications, RDCIS
- Thermodynamic study for modification of non-metallic inclusions in steels to prevent sub entry nozzle clogging during casting, RDCIS

Development & Commercialization of New Products

RDCIS plays a lead role in the product development activities of SAIL. RDCIS, in close association with the SAIL plants, developed the following products during April, 2015-December, 2015:

Sl. No.	Product	Plant
1.	IS 1786 Fe 500D TMT rebars (20 mm)	ISP
2.	API 5L X60 PSL1 grade HR Coils	BSL
3.	IS 15962 E 450S grade HR Coils & Plates	RSP
4.	ASTM A 387 Gr. 11 Cl. 2 Plates	BSP
5.	Ti 44 tabilized low carbon ferritic stainless steel (AISI 409L)	SSP
6.	High tensile plates with Z directional properties	BSP
9.	Formable quality CR Coils (IS 513 CR4)	BSL
10.	Ti 44 tabilized low carbon ferritic stainless steel (AISI 441)	SSP
11.	IS 2062 E 450 Thicker Plates (70 & 80 mm) with Z directional properties	RSP
12.	T91/ F91 Grade Steel	ASP
13.	IS 1786 Fe 500S HCR grade TMT rebars (32 mm)	BSP
14.	SAIL Tower Gr. VI Billets (150x150 mm)	ISP



Expenditure on R&D

(Rs. in crore)

Year	SAIL's Turnover	R&D Expenditure			
		Capital	Revenue	Total	% of Turnover
2011-12	50348	5.37	129.08	134.45	0.27
2012-13	49350	2.56	145.07	147.63	0.30
2013-14	51866	4.38	106.05	110.43	0.21
2014-15	50627	32.14	232.06	264.20	0.52

Patents filed:

Year	No of patents filed
2012-13	35
2013-14	36
2014-15	37
2015-16 (Apr-Dec)	19

6.2.2 Rashtriya Ispat Nigam Ltd. (RINL)

Research and Development initiatives in RINL are directed towards meeting the present and future requirements of the plant. Achievements towards R&D up to December 2015 are given below:

- Improved MgO-C refractories, development of different varieties of MgO-C refractory for zonal lining in converter.
- Value added ceramic products viz., vitrified ceramic tiles, pavement blocks, abrasion resistance tiles etc., were developed using solid wastes.
- Development of metalized nuggets using Iron ore fines (-5mm) & metallurgical wastes as new input for steel making.
- Lance tip design for better lance tip life and blowing conditions and thereby improving LD productivity.
- Development of solution of Corrosion problem in the roof of Benzol tank.
- Prediction of transition bloom volume and minimization of transition bloom production.
- Utilization of VSP's BF slag for foundry application.
- Development of solution for Corrosion Problem in BF/LD Gas Pipe line and N1 bunkers of CCD.
- Identification of underground water resources and making use of them in the case of necessity.

Patent Filed during 2015-16: 1

Pulverized Coal Injection to substitute part of coke at Blast furnace 3 and thereby reducing cost of production at RINL

R&D Investment

(Rs. in Crore)

Year	Actual Expenditure	Expenditure as % of Turnover
2012-13	31.13	0.23
2013-14	50.27	0.37
2014-15	33.09	0.28
2015-16 till Dec'15	16.24	0.20

6.2.3 NMDC Ltd.

NMDC has its own R&D Centre extending technology support to their existing mines, other organisations in India and abroad. The Centre is committed to maintain its excellence in undertaking product and Technology Development Missions related to ore and Minerals through continual improvement in process performance for enhanced customer satisfaction.

The R&D Centre functions in the following Thrust Areas:

- Ensuring conservation of high grade ore by blending with low grade ores.
- Developing technologies for enhanced utilization of iron ore fines and utilisation of tailings/waste.
- Providing technical solutions to the problems related to quality and productivity of NMDC mines.
- To extend its expertise to in-house projects of NMDC and other domestic & foreign organizations, in the field of Mineral processing, Hydrometallurgy, Agglomeration, Bulk solids handling, Mineralogy and Chemical analysis.
- Identification of new projects and development of cost effective process technology in tune with the long term objectives and strategic plans of the corporation.
- Expanding R&D expertise in Coal Carbonization and Iron & Steel

Development projects being pursued by NMDC are:

i. Studies on the influence of temperature on flow properties of bulk solids

ii. Beneficiation studies on BHQ from Kirandul

iii. Preparation of nano-structure TiO_2 from silica base kimberlite

iv. Bulk concentrates production for 15 million ton slurry pipeline - rheological studies and flow sheet development for 2 mt beneficiation plant at Bacheli

v. Development of special grade ferrite for NMRL (DRDO)

vi. Characterization and beneficiation studies on slime samples received from Bacheli and Kirandul. (ISM)

vii. Pelletization study with iron ore concentrate from fines and slimes of Bacheli and Kirandul as part of setting up of 2.0 MTPA Pellet Plant at Nagarnar.

R&D Investment

(Rs. in Crore)

Year	Investment on R&D			Annual Turnover of NMDC	Percentage w.r.t turnover (%)
	Revenue	Capital	Total		
2012-13	11.98	0.25	12.23	10704.27	0.11
2013-14	14.42	2.32	16.74	12058.00	0.14
2014-15	17.16	1.33	18.49	12356.41	0.15
2015-16 (Up to Dec' 15)	11.30	0.63	11.93	4925.85	0.25

6.2.4 MOIL Ltd.

MOIL has carried out R & D activities to improve the safety and productivity in the mines by introducing modern technology with CSIR-R&D Laboratory, Academic and R&D institutions of the country. Major activities during 2015-16:

- Ventilation reorganization studies for deeper levels to improve the face ventilation and productivity of underground sections of Balaghat and Gumgaon Mine.
- Mechanized stopping operation has been prepared and implemented for mechanized stopping operations and support systems at Ukwa Mine.
- Mill tailings of Malanjkhad Copper Projects have been utilized for hydraulic stowing operation at Ukwa Mine.
- Study for filling of underground sections at Ukwa Mine by bottom ash on experimental basis.
- Making collaborative research for slope stabilization with National Institute of Technology, Raurkela for Slope Monitoring Instruments.

R & D Expenditure:

(Rs. in Crore)

Year	Expenditure on R&D	% of Turnover
2012-13	8.29	0.86
2013-14	9.19	0.90
2014-15	6.00	0.73
2015-16 (April to Dec,15(Prov)	6.03	0.90

6.2.5 MECON Limited

MECON completed the following R&D projects successfully during 2015-16:

- Conceptual design & simulation of Air Warrior Body Ventilation Vests for Defence personnel
- Development of non-contact linear displacement sensor and limit switch by laser spotting at R&D Division of MECON, Ranchi.
- Environmental Impact Assessment (EIA) on Ozone at RSP, Rourkela.
- Extraction of Iron, Aluminium and Titanium from Red Mud-GHARDA Chemicals
- Commercialization of Thermoelectric Direct Cooled Helmet for Industrial Application.

R&D Expenditure

Year	Turnover (Rs. in Crore)	R&D Expenditure (Rs. in Crore)	% of R&D Expenditure w.r.t. Turnover
2012-13	511.65	2.38	0.47
2013-14	341.29	2.70	0.79
2014-15	389.92	2.07	0.53
2015-16 (April to Nov. 2015)	450.00	1.61	0.36

6.2.6 JSW Steel Limited

JSW has a well defined R&D centre and has taken up 22 R&D projects on process, energy and product optimization and 4 projects on technology and product development during 2014-15. So far they have completed 17 projects relating to process, energy and product optimization and 3 projects of technology development.

Major R&D activities carried out during 2014-15

- In Vijaynagar Works total 22 projects (20 projects relating to process, energy and product optimization and 2 technology development projects) have been completed till Dec. 2015.
- Reduction of mill load and improvement in surface quality due to temperature mark in thinner gauge SH41AL grade by partial replacement of Nb by V with the use of Nitrovan.
- Improvement in the life of grate bar in sinter plant by reducing the variation in temperature & air flow across the width of sinter bed.

New products developed

- Improvement & Consistency of mechanical property of SAPH440 grade by using Nitrovan
- Reduction of strain hardening rate of High Mn, Nb microalloyed grade used for pipe application
- 38MnSiVS5 - for crank shaft application
- 5125RH - for making Pinions / Gears
- SAE94B17H - for making gear drives
- 55Si7 - for making elastic rail clips
- SAE 1070 - for cam shafts for Indian railways
- AISI E86B45 - for connecting rods for railways

New processes developed

- Optimization of Deoxidation process and secondary refining to reduce inclusion related defect and for reduction of aluminium consumption.
- Reduction of Sliver/Alumina Streak related surface defect in LCAK steel.
- Reduction of hardness by 20 BHN in 51CrV4 grade flat products by slow cooling method.
- Study on reduction in micro inclusions in various steel grades by collaboration with CSM, Italy.
- Use of SMS slag and fly ash in Eco friendly road pavements.

Patents filed during 2015-16 (April - Dec 2015): 9 (Nine)

R&D Investment (Vijaynagar Works)

(Rs. in crore)

Year	Investment in R&D	R&D Investment against Annual Turnover, [%]
2012-13	43.42	0.160
2013-14	22.04	0.074
2014-15	17.44	0.055

R&D Investment (Dolvi Works)

(Rs. in crore)

Year	Investment in R&D	R&D Investment against Annual Turnover, [%]
2012-13	0.97	0.01
2013-14	2.44	0.02
2014-15	1.445	0.014
2015-16 (Apr-Dec'15)	1.50	-

6.2.7 Tata Steel Limited (TSL), Jamshedpur

Tata Steel Ltd. has its own R&D centre at Jamshedpur pursuing basic & applied research in different areas relevant to iron & steel including raw materials like iron ore, coal etc.

R&D work carried out during 2014-15

- Development and scale up studies of Microbial Desalination Cell for removal of TDS and generation of bio-electricity from wastewater
- Optimization of smelt reduction process parameters and pilot trials for production of FeMn with 0.5% C
- Develop a synthesis gas (CO + H2) production process from LD & FeCr slag 2. Develop a laboratory design and optimize process parameters to maximize waste heat recovery
- Water Model Studies of BF Hearth for Multi-Taphole Operation : Part 1 - Designing of Experimental Setup
- Plant trial of Slag fluidiser at the C and F Blast furnaces
- Utilization of overburden (OB) from coal mines as road construction material.
- Reduction of LD#3 tundish skull losses at cast end by 50%.
- Improve the existing Nozzle clogging index model and correlate with the upstream data
- Establishing solidification and heat transfer behavior of peritectic and non-peritectic grades of steel for optimum casting performance
- Improvement in castability in high Mn (>1.5%) steel grades
- Effect of flow in tundish and SEN on higher turbulence observed at one side of the meniscus in the caster of LD2.
- Development of a new class of lubricant consisting both oil and powder for Open casting of Billets
- Geo-polymer Bricks and Concrete from Solid waste
- Successful demonstration of high alumina operation (Alumina at 23-24% - daily average) in blast furnace using slag viscosity modifier
- Conducted plant trials with LD sludge briquettes as coolant to replace

New process / Product developed (April - Dec. 2015)

- Establish mechanical properties for G340 and TMBP2 grade by optimization of process parameters and chemistry through microstructure correlation
- Development & Commercialization of Fire Resistant Steel (YST 355 Mpa min in Tata Structural) with yield ratio minimum 0.50 at 600 deg centigrade
- Development of low-cost welding electrode from low carbon wire-rod

- Evaluation of Mig wire (ER70S-6) made out of TSL wire rod (WR3M) in comparison with other wire rod sources (local and global).
- Development of rebars for cryogenic applications
- Development of SAPH 440 grade with YS/UTS ratio 0.7-0.8 through TSCR
- Development of Tata HS 1000 with reduced/zero Molybdenum
- Development of steel with ultrahigh tensile (>=1400MPa after induction hardening) properties for side impact beam of car
- Development of continuously cooled bainitic steel with minimum 1200 MPa UTS and 20% minimum elongation: From laboratory (stage 3) to pilot (stage 4)
- Development of thermodynamic model for prediction of selective oxidation of alloying elements of DP steels under CGL -2 process conditions
- Development of a tool to predict the process parameters for achieving customized phase fraction in galvannealed coating
- 50% Joint life improvement of the UHR conveyor belts from 32 days by developing high temperature resistant insulation compound
- Development of Alternative Kitchen Sink Materials to Replace Stainless Steel

R&D Investment:

(Rs. in crore)

Year	Amount				% of Turnover
	Recurring	Capital	Total	Turnover	
2012-13	55.77	3.96	59.73	38,199.43	0.15
2013-14	68.45	12.06	80.51	41,711.03	0.19
2014-15	107.87	25.93	130.80	41,785.00	0.32
2015-16	Yet to be published				

6.2.8 Bhushan Steel Limited

R&D Initiatives:

- Successfully Developed the IF grade steel for auto application as inner and outer panel in various sizes of 3.2 x 1260 - 1700 mm and 4.0 x 1260 - 1700 mm. Also, IF 340 in size 3.2 x 1370 mm for dent resistant in auto application.
- Developed Boron treated Low carbon Steel for cold rolling application.
- Developed Hot Rolled Strips for Boiler tubes & Super heater tubes used for low temperature application and this product is approved by IBR (Indian Boiler Regulation).
- Developed High Carbon Steel Hot Rolled Strips with High Mn (1%) beyond SAE1080 specification for customized application for specific Customers.
- Successful development and supply of 28 MnB5 high manganese & Boron Steel grade in size 5.8 x 1196 mm for Agricultural disc applications in Overseas Market.
- Development of BSK46 grade, high strength micro-alloyed grade for manufacturing Auto Chassis as well as various components for auto application in various sizes of 2.6 -4.0x1250 mm.
- Successful development high strength low alloy structural steel of EN10025 S355 grade in 2.9 x 1550 mm size and Fe 540, high strength Low alloy steel for Structural applications in Indian Railways.


Expenditure on Research and Development:

BSL in principle committed to adopt the R & D initiative as continual process towards development, a regular investment of approx. 0.4 - 0.5% of sales turnover allocated on annual basis towards R&D initiative.

6.2.9 Jindal Steel & Power Ltd. (JSPL)

R&D Initiatives:

- Commissioning of Syn Gas Plant at JSPL Angul. This is a breakthrough technology for clean steel production designed to run on indigenous coal. It provides an efficient alternative to Traditional natural gas based DRI Plant
- Development of E550 Grade at JSPL Angul, Plate Mill
- Use of non-returning valve for ladle purging at SMS-II
- Use of L.C. Castable as safety lining for ladle
- Above burden probe 0Deg (DRI plant side) to be replace with new one & make ready to existing valve
- Repairing of Worn Out Refractory Lining
- Screen facility from single deck to double deck to reduced fines % in Feeding raw material in Kilns
- Utilization of FC % In char to reduce coal consumption
- Utilization of variety of Fly Ashes available at M/S JSPL, Raigarh (CG) for developing Cementitious LSA(Ligno-Silico-Aluminious) Material for Non-Structural Applications
- Head Hardening of Rails Projects

(Rs. in crore)

Year	Amount				% of Turnover
	Recurring	Capital	Total	Turnover	
Up to Nov' 15	5.30	0.89	6.19	5,731.77	0.11


CHAPTER-VII

ENERGY, ENVIRONMENT MANAGEMENT AND CLIMATE CHANGE

7.0. Introduction

Environment management and energy efficiency constitute an important benchmark for evaluation of a company. The Ministry of Steel, through various schemes and regulations, is facilitating reduction in energy consumption and emission of environment pollution in steel plants. Some of the steps /initiatives being taken by the Ministry of Steel through various forums and mechanisms are:

7.1 Government Initiatives

7.1.1 Charter on Corporate Responsibility for Environment Protection (CREP)

This is an initiative of Government of India in association with the main/ major steel plants to reduce environment pollution, water consumption, & energy consumption, as per mutually agreed targets with the purpose to go beyond the compliance of regulatory norms, for prevention & control of pollution through various measures including waste minimization, in-plant process control & adoption of clean technologies. Ministry of Steel facilitates compliance of CREP action points in association with the steel plants.

7.1.2 National Action Plan on Climate Change (NAPCC)

National Action Plan for Climate Change (NAPCC) has been launched in 2008 to address the Challenge at national level. NAPCC outlines 8 National Missions, one of them being the National Mission for Enhanced Energy Efficiency (NMEEE). Perform Achieve & Trade (PAT) is the flagship scheme under NMEEE. PAT is a market based mechanism through certifications of energy savings which could be traded. PAT has become effective from April 2012 and has set a target of average 5% reduction in energy consumption during the next 3 years.

The first PAT cycle has already been completed and report has been submitted by the respective plants. After analyzing the report new benchmark will be decided for iron and steel sector.

7.1.4. Promotion of Energy Efficiency in SME Sector

UNDP-GEF-MoS Project: Facilitated low carbon technologies in **34 steel re-rolling mills** (model units) to bring down energy consumption and reduce GHG emissions by 25-50%. This has helped in replication of the energy efficient technological interventions in many other steel re-rolling mills.

UNDP-MoS-AusAID Project: Aims to further replicate energy efficiency in steel re-rolling mills and expand the interventions to other SME Sector like induction furnaces. The project is under progress and expected to complete by June 2016. The technology being replicated in 293 units (283 steel re-rolling mills & 10 induction furnaces).

7.1.5. NEDO Model Projects for Energy Efficiency Improvement

Government of Japan through Ministry of Economy Trade & Industry provides funds i.e as Overseas Development Aid (ODA) under its Green Aid Plan (GAP) through Deptt of Economic Affairs in GOI 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 & Industrial technology Development Organisation), Japan. Ministry of Steel is coordinating the projects undertaken in the iron & steel sector. So far the following three projects have been commissioned, two at Tata Steel and one project at RINL.

- **BF Stove Waste Heat Recovery:** Completed at Tata Steel
- **Coke Dry Quenching:** Completed at Tata Steel
- **Sinter Cooler Waste Heat Recovery:** Completed at Rastriya Ispat Nigam Limited.


Further, feasibility studies have been carried out by NEDO for exploring the setting up of two more Model Projects (i) Regenerative Burner System for reheating furnaces at Rourkela, SAIL and (ii) Energy Monitoring and Management System at ISP Burnpur. Both these projects are under different stages of approval of Government of India.

7.2 Initiatives of Steel Companies

7.2.1 Steel Authority of India Limited (SAIL)

Energy Management

Consumption of energy per ton of crude steel (Gcal/tcs):

Plant	2013-14	2014-15	2015-16 (Apr. - Nov.)
BSP	6.48	6.46	6.44
DSP	6.38	6.35	6.50
RSP	6.68	6.57	6.51
BSL	6.75	6.69	6.71
ISP	8.02	-	-
SAIL	**6.59**	**6.53**	**6.53**

Environment Management

Ample measures taken by the SAIL steel plants have resulted in improvement in the major environmental parameters over the same period (April-December) last year:

- Particulate Matter (PM) emission load by more than 2%
- Specific Water Consumption by more than 8%
- BOF slag utilisation by 4%
- Specific CO_2 Emission by more than 1%

Low carbon usage technologies/facilities adopted

As a measure towards reducing the CO2 emissions and to achieve higher energy efficiency, SAIL plants have introduced various clean technologies at its plants over the years, such as:

- Introduction of mixed fuel (CO/BF/BOF gas along with conventional fuel) firing in Boilers for power/ steam generation
- Installation of Multi slit Burners at Sinter Plants
- Waste Heat Recovery from Sinter Plants
- Installation of Coal Dust Injection (CDI) in Blast Furnaces
- Thyristerisation of Motor Generator Sets, etc.

Concerted efforts by the plants have resulted in considerable reduction in the Specific CO_2 emission from a level of 2.80 T/tcs during 2011-12 to 2.65 T/tcs during 2014-15, a reduction of 5.36%, as is shown below:

(Unit: T/tcs)

Parameter	2011-12	2012-13	2013-14	2014-15	2015-16 (Apr.-Dec. 2015)
Specific CO_2 Emission	2.80	2.75	2.69	2.65	2.65

N.B.: SAIL average figures for the years 2011-12 to 2014-15 are for 4 integrated steel plants excluding ISP. However, SAIL average figure for the FY 2015-16 upto Dec.'15, is for the 5 integrated steel plants, including ISP

Highlights of compliance to National/CPCB/SPCB norms/regulations

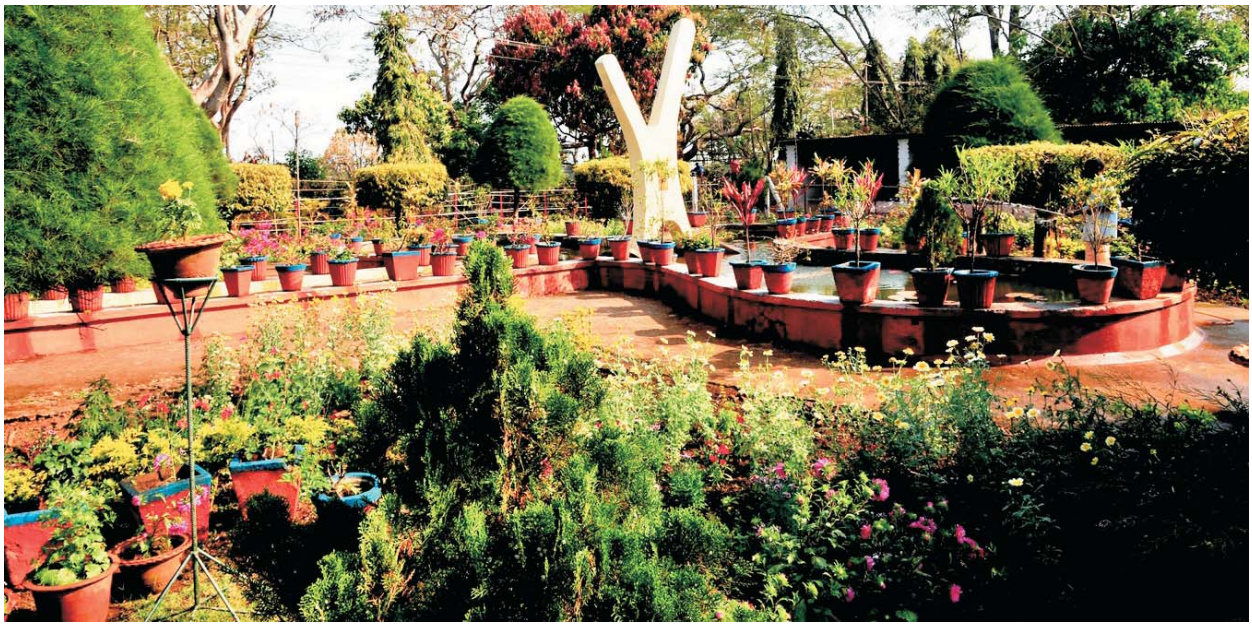
During 2015-16(April - December, 2015)

Stack Emission

Particulate Matter (PM) emissions from the stacks of all the major production shops of SAIL plants are meeting the respective norms, except at the Sinter Plant of BSL, where PM emission from stacks was reported higher than the norm. Multi-cyclones provided with the sinter machines at BSL are being gradually replaced with ESPs to bring down the stack emission within the stipulated norm. Meanwhile, as a short term measure, refurbishing of the multi cyclones are being carried out to contain the stack emissions within the norm.

Fugitive Emissions

Ambient Air Quality & Effluent discharge quality in all the plants are well within norms.



Garden in SAIL Meghahatuburu township

Solid Waste Generation/Utilisation

Utilisation(%) of BF slag, LD slag and total solid waste during April - December, 2015

BF Slag	LD Slag	Total Solid Waste
86%	79%	82%

N.B.: SAIL average figures are for the five ISPs

To enhance utilisation of BF Slag and LD Slag, the following initiatives have been taken:

(i) BF Slag

In order to achieve full utilisation of BF slag, Cast House Slag Granulation Plants (CHSGPs) are being installed at those BFs where the facility was not provided with. Accordingly, six(6) nos. CHSGPs are under installation at BSL,with BF#1,2&3. Two (2) units have been commissioned and another two (2)units are under trial run. The balance two (2) units shall be commissioned with BF#1 (presently under shut down), once the BF is put into operation,in June 2017.Similarly to enhance granulation of BF slag at RSP and ISP, the new Blast Furnaces (BF#5 at RSP and BF#5 at ISP) have been commissioned with CHSGPs. At BSP, the new Blast Furnace (BF#8) which is being installed as a part of the on-going expansion cum modernization programme,also has the provision of in-built CHSGP.


(ii) LD Slag

Use of Weathered LD Slag as Rail Track Ballast

The physical properties of weathered LD slag (WLD Slag) meet the specification required for stone ballast for use as rail track ballast. In response to a proposal by SAIL, South Eastern Railway (S.E.R.) has agreed to conduct a field trial at the Bokaro Rail Yard with the weathered LD Slag from Bokaro Steel Plant. Field trial in association with S.E.R. has started from June 2015, at Ispat Nagar Railway Yard, Bokaro. Inspections of the track parameters are being carried out jointly by the representatives of the S.E.R. and the SAIL, on regular basis.

Development of Technology for Dry Granulation of LD Slag and Heat Recovery

Indian Institute of Technology, Kharagpur has been assigned as Consultant for "Laboratory Scale Study for Development of Technology for Dry Granulation of LD/BOF Slag (Hydro-Mechanical Study)". First phase of the study is scheduled to be completed by March 2016.Dry granulated LD slag would be utilized for cement manufacturing, apart from the other advantages of heat recovery and water conservation from the process.

Use of BF-BOF slag as replacement of natural aggregates (Sand)

In response to a representation from the major steel manufacturers, the Bureau of Indian Standard (BIS), New Delhi, is on the way to publish a revisedBIS standard (IS:383) where BF and BOF slag has also been included as alternate material (partial replacement) in place of natural sand as aggregate (fine and coarse) for manufacturing cement concrete.

Compliance to CREP Action Points

All the Coke Oven Batteries are complying with PLD, PLL & PLO stipulations. Out of 34 installed Coke Oven Batteries, 9 batteries have been re-built since 2003 and 6 batteries are presently under rebuilding.

Moreover, in order to maintain the health of the Coke Oven batteries, need based cold repair and hot repair of the batteries are done across the SAIL plants. Presently, 3 batteries are under cold repair.

i) All plants achieved 30% reduction in the fugitive emission in Steel Melting Shops. To achieve the targeted 100% reduction, Secondary De-dusting facilitiesat the existing BOF shops are being set up in all the plants. The new BOF at ISP which has been commissioned under the expansion cum modernisation programme has come up with in-built secondary de-dusting facility.

ii) In 19 nos. Blast Furnaces (out of 21 nos.) CDI/CTI facilities are in operation across SAIL plants. The new blast furnace, at BSP (BF#8) is coming up with CDI facility.

iii) Utilisation of BF slag was 86%during Apr.-Dec.'15and full utilisation shall be achieved after the completion of on-going projects as mentioned at point 5(i), under point (b), above.

Utilization of BOF slag was more than 79% during Apr.-Dec.'15. There is technological limitation in recycling/ reusing of BOF slag, however efforts are being made to enhance utilisation as mentioned at point 5(ii) above.

Plants are disposing the hazardous wastes generated either through common disposal facility or in the Secured Landfills (SLFs) set up in the plant.

Inventorisation of the hazardous wastes generated in the plants has been done.

iv) The specific water consumption (m^3/tcs)at the integrated steel plants during April to December, 2015, against CREP norm of 5m^3/tcs for long product plants and 8 m^3/tcs for flat product plants, are as follows:

Unit: m^3/tcs

BSP	DSP	RSP	BSL
CREP Norm: 5 m^3/tcs		*CREP Norm: 8 m^3/tcs*	–
2.78	3.60	4.03	4.30

NB: The new plant at ISP which has come up under the expansion cum modernisation programme is under stabilisation

All the parameters are meeting the norms at the outlet of the Coke Oven By-Product effluent treatment plant.

v) Online stack emission monitoring systems have been installed at the major shops. Ambient Air Quality monitoring system shave also been installed at various locations at the plants. Apart from these, real time data transfer from the continuous emission monitoring systems,installed in the stacks of the plants, have been started. Also, on-line effluent quality monitoring systems have been installed in the outfalls of the plants along with the facility for real time data transmission to the servers at SPCB/CPCB.

vi) Proper records of the operation of the existing pollution control equipment are being maintained.

vii) Following important clean technologies are being installed during the on-going modernization projects: Coke Dry Quenching at Coke Ovens, Top Pressure Recovery Turbines at Blast Furnaces, 100% Continuous Casting, Waste Heat Recovery from Blast Furnace Stoves and Sinter Cooler, Gas based Power Plants etc.

Implementation of Environment Management System

EMS linked with ISO-14001:2004 was implemented at the following units of SAIL during 2014-15:

- Alloy Steels Plant
- Barsua Iron Mine
- Two warehouses of CMO (viz. Delhi and Vizag)

Implementation of EMS has been taken up at the following units, during 2015-16:

- Gua Ore Mines
- DSP Warehouse of CMO

Greenery and Eco-restoration of degraded lands

- During 2015-16 (till Dec. 2015), more than 3.90 lakh saplings were planted in and around the SAIL plants/mines.
- The sustainability project on Biodiversity Conservation & CO_2 Sequestration at Bolani Mine has been executed by SAIL over and above the stipulated legal requirements. Ecological restoration of 75 acres of de-graded landscape has been taken up through collaboration with the Delhi University and Ambedkar University, Delhi. During 2015-16 (till end of the assigned time period i.e.,Oct. 2015), 65,000 saplings and 5000 seeds of different of native tree species were planted. Also more than 2500 saplings of fruit yielding trees were planted to enrich the project site.

Bio-sequestration of CO_2

Progress of the on-going Technology Mission project, "Carbon sequestration through afforestation at RSP" is at par with the road map submitted by M/s Tropical Forest Research Institute, the sequestration partner. The scheduled completion of the project is March 2019. M/s TFRI has submitted Soil Organic Carbon report, Soil Characterisation report and Plantation report, during the year.

Non-conventional energy sources

- 1 MW Solar Power Plant has been commissioned at RSP on December 06, 2015. The Power Plant is connected with the electrical grid system of the State Electricity Board.
- 6 nos. solar water heating systems has been installed at the Rourkela House of RSP and action has been initiated for 90 more such heaters at the Ispat General Hospital of Rourkela Steel Plant.


- At RSP, 2 nos. of 5 KW capacity Solar Power Packshave been installed one each at the ED (W) building and CEO building. Installation of another five nos., at various locations (inside and outside works premises), is under progress.

Zero Discharge Initiatives

- SAIL plants have taken initiative for recycling the treated effluent from their outfalls back into the process, as a step towards zero discharge.
- In this regard, BSP has already placed order for installation of system for recycling of water from one of its outlets (Outlet #B). At BSL, tendering of the project for recycling of effluent from Outfalls # 1 and 2 has been done.

7.2.2 Rashtriya Ispat Nigam Limited (RINL)

Measures Taken/being taken for reduction in Energy Consumption (2015-16)

- As per M/s National Productivity Council's Energy Audit, several energy efficiency improvement initiatives are under the process of implementation and expected to reduce overall energy consumption by 0.3 Gcal/Tcs.
- Pulverized Coal Injection (PCI) at Blast furnace-3 has been successfully carried out in the month of Nov.-2015 and the system is under stabilization.
- LD gas recovery from SMS 2 was commissioned in the month of Dec -15 and system is under the process of stabilization.
- Waste Heat Recovery System from flue gases of stoves for preheating of gas was put into service.
- 120MW Blast Furnace gas based new power plant was commissioned and is under trial runs.

Energy conservation plans under progress:

- Stabilization of Pulverized coal injection in BF-1
- Stabilization of Pulverized coal injection in BF-3
- Stabilization of LD gas recovery from SMS-2
- Stabilization of Power generation from TRT of BF-3
- Stabilization of 120 MW blast furnace Gas based power plant

Non-Conventional Energy: RINL is in the process of setting up 5 MW Solar Plant.

Energy Consumption (Gcal/tCS) & CO_2 Emissions(Tons/Tcs)

Year	SEC (Gcal/tCS)	CO_2 emissions (Tons/tCS)
2012-13	6.31	2.66
2013-14	6.19	2.66
2014-15	6.37	2.78
2015-16 (till Dec'15)	#6.39	2.78

**SEC as per PM's Trophy methodology*

The energy consumption is marginally high due to the integration of new expansion units with existing units.

Waste Heat Recovery Systems (Apr-Dec'15)

Energy Saving Facility	Units	Energy Recovered	Boiler Coal Saved (tons)	Reduction of CO_2 Emission(Tons)
Total volume of LD Gas recovered at LD Gas recovery plant	MNCum	171.682	92651	146080
Total power generated at Back Pressure Turbine Station (BPTS)	MWH	147340	117872	185845
Total power generated at Gas Expansion Turbine Station (GETs)	MWH	14013	11210	17675
Total power generated from Sinter plant straight line cooler (NEDO project)	MWH	2879	2303	3631

(MNcum-Million Normal Cubic Meters, MWH-Mega Watt Hours)

Environment Management

- Revamping & up-gradation of ESPs of Sinter Plant and Blast furnace No.2 is taken up at a cost of Rs. 147.95 Cr. to limit the stack emissions to the revised norm of 50mg/Nm3.
- Modification/augmentation of ESP's of Thermal Power Plant is taken up with BHEL to bring down the emissions below 50 mg/Nm3.The approximate cost of Project is Rs. 200 Crore.
- Provision of Dog house for secondary de-dusting systems of SMS-1 is taken up at a cost of Rs.75.23 Crore. Provision of Dog house for Converter-A is under progress.
- Adoption of EMS ISO: 14001
- Clean Technology Initiatives
- Plantation: RINL planted 18,000 trees for avenue & block plantation.
- Zero Discharge

7.2.3 NMDC Ltd.

The company is in the process of obtaining integrated certification ISO14001:2007, ISO 9001:2008, OHSAS 180001:2007 and SA 8000:2008. The initiatives made by NMDC towards Environment conservation and pollution control is given below:

Air pollution

- Dust suppression on mine haul roads & use of atomized mist water spray at dumper platform and at transfer points for suppressing fugitive dust generation.
- Use of wet drilling for drilling the blast hole drills.
- Use of conveyors which are completely covered for transportation of run of mine iron ore from crushing plant to screening plant to loading plant.
- Automatic Ambient Air Quality System was installed at Bailadila Deposit-14, 5 and 10 mines for online monitoring of PM 10, PM 2.5, SO_2, NO_x and CO.

Water Pollution

- Effluent treatment Plants were installed at Auto work shop and Service centre at all projects for treatment of waste water which contains suspended solids and oil & grease.


- Tailing dams were constructed at all projects for impoundment of slime generated during wet screening operations.
- Sewage Treatment Plant such as oxidation ponds was constructed at all NMDC townships for treatment of domestic sewage. Modern sewage treatment plant with SBR technology is under construction at Bacheli. Award of work for installation similar STPs at Donimalai and Kirandul is under progress.
- Check dams and check bunds were constructed on various nalla courses to prevent flow of turbid water during monsoon season. The de-silting of these dams is carried out every year.
- Buttress walls are constructed at toe of waste dumps to prevent flow of waste material during rainy season at all iron ore mines.
- Geo-coir matting was laid on passive waste rock dumps at Donimalai and Bacheli to prevent soil erosion.

Noise Pollution

- Use of rubber coated screens and rubber lining at transfer points to prevent undue noise generation.
- Sound proof chambers were constructed at tertiary crushing plant areas where operator cum mechanic can sit and oversee the operation of the plant.

Afforestation

- NMDC is funding Chhattisgarh Harihar Tree Plantation Programme - 100Km Roadside Tree plantation covering 100km every year.
- Apart from above, projects are also undertaking tree planting programme every year depending on availability area outside mining lease areas.

Sustainability Initiatives

- NMDC installed 10.5MW wind mill project in Karnataka State in 2009.
- Undertaking carbon foot print studies and disclosure of GHG emissions in Carbon Disclosure Project.
- Prepared wildlife conservation plan for entire Dantewada Forest division where major iron ore mining projects are located in Bailadila range of hills.

Energy Conservation

- Energy audits were undertaken for all the projects. Audit recommendations are being implemented for energy conservation.
- LED laminations are being installed.
- Power factor is being maintained above 0.96 with static capacitors on HT and LT side.

7.2.4 MOIL Ltd.

Various measures are undertaken for control of pollutants :

Air Pollution Control :

- Wet drilling of blast holes.
- Muck pile will be wetted before loading.
- Haulage roads are frequently sprinkled with water for which truck mounted water tankers with sprinkler arrangement have been provided.

- Maintaining the drilling speed as recommended by the manufacturers should control dust produced during deep large blast hole drilling.
- Regular maintenance of vehicles and machineries is carried out in order to Control emissions.
- The dust respirators are provided to all the workers in dusty atmosphere.

Water Pollution:

- The water pumped during underground mining operation is fully utilized for plantation and sand stowing operations.
- The rain water collected in open pit is a source of water for dust suppression and plantation activity which is carried out in every year.
- There is no discharge of water from any of the mine in the nearby water sources.

Noise Pollution:

- Noise is best abated at source by choosing machinery and equipment suitably, by proper mounting of equipment & ventilation systems and by providing noise insulating enclosures or padding where practicable.
- The equipments to be procured is new and as such as the noise emission will be optimal for their design / operation. Proper maintenance/working should be done which keeps the noise level within limits.
- Planting of bushy trees of rich canopy in and around the mine area to intercept noise transmission. A 50 m wide belt of trees of different heights should be useful to act as noise attenuater in the mining areas.

Solid Waste Management:

- On an average 7.60 million M3 of solid waste is produced during the period of report. MOIL has adopted a system to segregate these waste in two categories namely (i) ‘white waste’ and (ii) 'black waste'. Both the wastes are dumped separately and systematically white waste is totally a waste rock and black waste is mostly magniferous rocks or 'sub-grade mineral' which can be utilized in future.
- White dumps once stabilized, are covered with plantation, MOIL in consultation with National Environmental Engineering Research Institute (NEERI) have successfully carried out plantation over these white dumps.
- Fresh and active dumps are being protected by benching and trench cutting/ stone pitching wall of 1m height all along the periphery at the ground level.

Plantation Efforts: Massive plantation is carried out with local tree species. MOIL has planted more than 18.46 lakh trees in all the mines over the last recorded 23 years with an average 75% survival rate of plants.

7.2.5 MECON Limited

MECON LIMITED, being a consultancy organization, does not operate/ manufacture any large scale plant or machinery themselves which call for exclusive efforts on Pollution Control and Waste Management. However, the efforts made by MECON for its clients which address these important issues are highlighted in the following paragraphs:

- Successfully executed and commissioned the NEDO model project as detail engineering consultant for the 20.6 MW Sinter Cooler Waste Heat Recovery System for the 2 nos. Straight line sinter cooler at RINL, Vizag
- Received orders, from both public and private sectors, for preparation of EIA/EMP reports for their new plants / expansion of plants for Raw Material Division.

- The Afforestation and Reforestation efforts of MECON have now been approved by UNFCCC as CDM project as it absorbs Carbon Dioxide and reduces GHGs. In the field of sequestering of GHGs by forest sector, a scientist of MECON has been selected by the UNFCCC Secretariat, Germany and has been placed in the Afforestation & Reforestation Working Group.
- Developed Comprehensive Industry Document (COINDS) and Environmental Standards for Re-rolling Mills.
- Developed guidelines for Management of Solid & Hazardous Waste, controlling fugitive emissions and emission factors generated in Integrated Iron & Steel Industry.
- Completed a prestigious assignment for providing consultancy services for implementing ISO 9001 & ISO 14001 in five model unit each in Steel Re-rolling Mills in India from UNDP/GEF, Ministry of Steel, Govt. of India.
- Got an assignment received by MECON is for preparation EIA/EMP reports for 4 x 700 MWe Mahi Banswara Rajasthan Atomic Power Project & 2 x 700 MWe Kaiga Atomic Power Project which is under Nuclear Power Corporation of India Limited (NPCIL).
- MECON is carrying out engineering work of sewage treatment plant, sewerage facilities & other effluent treatment facilities, as applicable, for NLC, Neyveli ; SAIL Projects of Bokaro, Bhilai, Burnpur and NMDC as well as for different private sector companies like Bhushan Group, Jindal Group etc.
- MECON is providing consultancy services for construction of two numbers of Effluent Treatment Plants (ETP) for remediation of hexavalent Chromium from Mine effluent for Odisha Mining Corporation, (OMC), Bhubaneswar for their Chromite Quarries at South Kaliapani, Sukinda.

7.2.6 KIOCL Limited

Energy Conservation

The specific energy consumption in Pellet plant the last two years and from April to November 2015 is:

Year	2013-14	2014-15	2015-16
Power consumed Per ton of pellets	62.56 Kwh/T	72.569 Kwh/T	188.33 Kwh/T
Heat consumption per tone of pellets in '000 K calories	243.5 Kcal/T	244.4 Kcal/T	239.4 Kcal/T

Energy Management and Conservation Measures

As a part of Energy management and conservation drive, following measures have been implemented in PP Unit.

- The remaining two Process Conveyor Drives in P.F have also been downsized to 15 KW. With this all the four process conveyors (CB71, 72, 73, 74) in Port Facilities have been downsized as per PCRA recommendation during energy audit.
- 50 nos. of 64 x 1 W LED fitting have been fitted in place of 102 nos. Of 125 W and 400 W MV fittings in Stores bin location. The energy saving is 2130 units per month and cost saving is Rs.16,500/- per month.
- The slurry pump drive PSB 5-18 in Pellet Plant has been downsized from 30 KW to 22 KW as per PCRA recommendation. The energy saved will be 15,840 units per year if plant operates to full capacity.
- As per the PCRA recommendation the conveyor drive CBG 2031 in Pellet Plant has been downsized from 11 KW to 7.5 KW. If plant operates to full capacity the saving will be 7920 units per year.
- Water line has been modified at Port Facilities Department so that thickener and Dump pond water filling can be done by gravity. Thus, running of process water pump of 80 KW for 12 hours

for filling thickener and 28 hours for filling Dump pond and running of SPW pump for 12 hours for filling the PW dump is avoided. Hence about 4920 units of energy is saved.

Environment Management

KIOCL is committed to preservation of ecology and prevention of pollution in production activities and has been accredited with ISO 14001-2004 EMS. Some of the initiatives taken during the year 2015-16 are as under:

- Stoppage of Mining and related activities
- Treatment Units
- Afforestation Activity
- Monitoring and Measurement
- Solid Waste Management
- A mist type sprinkler for a length of 295 Mtrs. has been installed for suppression of fugitive dust.
- A tree park consisting of 80 saplings has been developed in the plant area during this year.
- KIOCL received an award from Karnataka State Pollution Control Board for implementation of "Green Nurturing Programme" in schools.
- Concreting of road for an additional length of 280 meters between Shed No.2 and Pellet stock yard has been completed.
- During the Swachh Bharath Mission, cleaning campaign was taken up in the Company premises, township and surroundings.
- The standard norms prescribed by KSPCB in respect of air and water quality monitoring are being adhered to in all area of work.

7.2.7 JSW Steel Limited

Energy and Environment Management Highlights - [2014-15]

The state of art production facilities are equipped with necessary facilities for reduction in energy consumption & control of environmental pollution. Some of the salient features are:

- Coke Dry quenching.
- Coke pushing emission control equipment.
- Cast house fume extraction system.
- Top gas recovery turbine.
- Secondary fume extraction system for converters.
- Granulation of Iron and Steel making slag.
- Micro Pelletization
- Mill Scale Briquetting

Energy Initiatives/ Initiatives in FY 2015-16 (till Nov. 2015)

- Improved the Tar recovery in coke oven by 5.9%
- Reduction in Solid fuel rate of sinter plant by 2.9 Kg/T of Sinter.


- Refurbishment of Corex gas holder & converting it to LD gas holder by connecting it to LD line, thereby increasing the LD gas recovery.
- Argon venting reduced by optimizing delivery logic of BOC 2.
- Reduced 48 % of oxygen venting by optimizing the oxygen plants pressure setting.
- Reduction in LPG consumption by nitrogen injection i.e 7 Tons per day saving.
- SMS#2 Pilot burners fuel substitution to Coke oven gas from LPG, there by reduction in LPG up to 2 Tons per day.
- Augmentation of power generation in Captive power plant by utilizing DRI tail gas at higher pressure.

Energy Consumption & CO2 Emissions (Dolvi Works)

Year	SEC (Gcal/tCS)	CO_2 emissions (TCO_2/tCS)
2012-13	6.574	2.583
2013-14	6.308	2.153
2014-15	6.414	2.089
2015-16 (till Dec'15)	6.395	2.15

Environment Initiatives

Air pollution control measures taken during the year are:

- Through various initiatives, the stack dust emission was brought down significantly by March 2015.
- Installed coal diverter along with conveyor and storage hopper with significant reduction in visible dust emission.
- Venturi system was installed for the pleated bags at LCP2 Lime Grinding Unit bagfilter and purging was redirected, thereby minimising overall bag failure to beyond 6 months.
- In RMHS Junction house achieved consistent reduction in dust emissions by improving the sealing of transfer points.
- New major bag filters were commissioned for Corex flexo-well, KR Process SMS-2, Sinter Plant-1 flux routing, RMHS 10J50-51, 7J36-37 and 7J24 with an investment of Rs 15 Crs.

Water conservation measures taken during the year are:

- Commissioning of Reverse Osmosis plant in DRI & CRM2 to maximize recycling.
- ID fan cooling water redirected to thickeners, thereby 900 m3/day of discharge was reduced to Guard pond-1.
- The waste water from all streams is stabilized in Guard Ponds and used for non-process applications such as slag quenching and cooling, fire fighting, raw material handling yards, green belt and ore beneficiation and saved around 50,000 m3/day of water.

Solid waste utilization measures taken during the year are:

- The Granulated Blast Furnace Slag is already sold as a green material for slag cement making (it mitigates 0.5 tCO2/ tonne clinker in cement making).
- JSW Steel undertook a unique new initiative to sell the slag as river sand substitute.

Information on CPCB / KSPCB Norms/Regulations/EMS systems and plantation projects

- JSW Steel is in compliance with / CPCB / KSPCB standards for stack emissions except in the case of sinter plants, where the emissions are marginally high.

- As per approved from KSPCB , modification of ESP in SP1&2 completed and VM less than 4% in Sinter plant ensured..
- JSW Steel strictly complies with CREP requirements. All best adoptable technology for steel making has been incorporated.
- JSW Steel is in compliance to ISO: 140001 as the Environmental Management System was recertified by TUV Rhineland. Currently there are over 180 internal auditors for auditing various facilities. Further initiative has been taken to incorporate EMS systems in the new units.
- Till date 1.607 million trees has been planted and the trend is still continuing.

Parameters	Year 2014-15	April `15	May `15	June `15	July `15	Aug `15	Sept `15	Oct `15	Nov `15
Specific water consumption (m^3 / tcs)	3.67	3.60	3.60	3.39	3.67	3.63	3.27	3.01	3.04
Specific dust emissions (kg / tcs)	0.78	0.64	0.66	0.59	0.58	0.66	0.57	0.66	0.69
Specific SO2 emission (kg / tcs)	2.5	3.68	2.2	3.58	2.16	2.67	2.54	2.67	2.58
Specific NOx emission (kg / tcs)	1.84	1.73	0.76	1.75	0.84	0.96	1.26	1.28	1.29
Solid Waste Utilization (%)*	87	75.2	76.5	78.2	79.7	81.3	80.8	75.8	72.9

7.2.8 Tata Steel Limited (TSL), Jamshedpur

Highlights of reduction in energy consumption and low Carbon usage technologies 2015-16 (Apr. to Dec. 2015)

Indicators	UoM	2011-12	2012-13	2013-14	2014-15	2015-16 (Apr-Nov)
Specific Energy Consumption	Gcal/tcs	6.088	6.083	6.017	6.012	5.791
Specific CO_2 emission	tCO_2/tcs	2.50	2.53	2.43	2.42	2.30

Energy efficiency enhancement through energy conservation is the principal lever for abatement of GHG emissions. Specific Energy Consumption and Specific CO_2 emission are being maintained during 2015-16 through process control despite constraints in raw material availability and variation of quality.

- Specific Power consumption reduced to 389 KWh/tss in 2015-16 from 406 KWh/tss in 2014-15.
- Optimisation of BF Operation (process control and in-house improvement) resulted in carbon rate reduction from 470 kg/thm in 2014-15 to 453 in 2015-16 .
- Steam generation through CDQ continued and is 68.5 TPH during 2015-16 .
- Steam generation ~4 TPH from Waste Heat Recovery at the Sulphur Recovery Unit in New By-product plant achieved since its commissioning in 2013-14.
- Power generation through three Top gas pressure Recovery Turbines (TRT) is @ 20.76 MW during 2015-16.
- Efficient use of by-product gases for Power Generation has led to
  - Blast Furnace Gas flaring @ 4.5% of generation during 2015-16 against 4.8% in 2014-15 and Worldsteel Association's Benchmark of 5%.
  - In-house power generation (including Power House No.6) @ 234 MW during 2015-16.


- The company has a registered CDM project titled "Top Gas Pressure Recovery based Power Generation from 'G' Blast Furnace". Three verifications have been completed and 83,335 CERs have been issued. No CER sold.
- Tata Steel is recognised as leader in Climate Change by CDP 2015 in Nov 2015. Its rating (Climate Disclosure Leadership Index, CDLI = '100' against 97 in CDP 2014 and Climate Performance Leadership Index, CPLI = 'B') is highest amongst global steelmaking companies and Material sector companies in India.
- The company is member of Worldsteel Association's Environment Committees and is recognised as 'Climate Action Member'.

7.2.9 Bhushan Steel Limited

Energy Conservation Initiatives

Highlights of reduction in energy consumption and low Carbon usage technologies

- Gas Fired Boilers (60 TPH and 125 TPH Capacity)
- Installed 7.6m height batteries at our Coke Oven - 2 helps in minimizing the pollution.
- Installation of LED lamps:
- Installation of Solar Lighting System

Overall Specific Energy Consumption (GCal/TCS):

Year	2013-14	2014-15	2015-16
Overall Specific Energy Consumption	5.11	4.91	6.16

Specific CO_2 Emission during 2013-14, 2014-15 & 2015-16 (tCO2/tcs):

Particulars	2013-14	2014-15	2015-16
CO_2 emissions rate per ton of crude steel production	4.46	3.06	2.87

Specific Water Consumption per ton of Crude Steel:

Description	2013-14 (m3/tcs)	2014-15 (m3/tcs)	2015-16 (m3/tcs)
Up to HSM and drinking water	11.15	5.90	4.7

CREP guidelines have been implemented and compliance ensured.

ISO 14001 accreditation is under process.

Green Energy Initiative:

3.3 lakh numbers of plantation with 22% green coverage achieved till date. The saplings are also distributed among villagers of local community in greenery drive. Ash dup of an area 20 acres surface area have been covered with soil and green vegetation created for eco-restoration. The mixture of plant gases, BFG & COG are being used as a fuel in Reheating Furnace, Lime Plant, Sinter Plant and Cold Rolling Mill.

Zero discharge initiative: The following measures have been taken to ensure zero discharge in our steel plant.

- State-of-art technologies of ETP's have been installed in various units like Blast Furnace, Basic Oxygen Furnace, Coke Ovens, Cold Rolling Mill, Hot Strip Mill etc. The treated effluent is reused further in the process.
- The four nos. of Sewage Treatment Plant established for the treatment of domestic waste water. The treated water being reused in watering of greenery.
- Specific water consumption of 4.56 m^3/tcs achieved against benchmark standard of 3.5m^3/tcs.

7.2.10 Jindal Steel and Power Ltd. (JSPL)

Energy & Environment Management:

Highlights of reduction in energy consumption and low Carbon usage technologies

Year	Specific Energy Consumption (Gcal/tcs)	CO_2(t/tcs)
2012-13*	8.121	3.289
2013-14*	8.173	3.356
2014-15**	9.099 (Total) 7.694 (Excluding power plant)	4.182 (Total)
2015-16(till Nov-14)**	8.840 (Total) 7.598 (Excluding power plant)	4.093 (Total)

* Total Including Captive power generation in JSPL, Raigarh boundary only
**Total Including Captive power generation in JSPL, Raigarh boundary and DCPP

Energy Saving Measures

- Installation of BPRT (Back pressure recovery turbine) in Blast Furnace-1
- Reduction In Auxiliary Power by Optimization of conveying air in Bed Ash & ESP in DCPP
- Reduction In Auxiliary Power by Interconnection between instrument compressors line and ash handling compressors line in DCPP
- Conserved energy at CHP area through conversion of LT motor operation from DOL stator to Star-Delta stator in DCPP
- Reduction of lighting load by bring down voltage of LDB transformers (Phase-2 LT & HT LDBs, Ph-2 ESP, Ph-2 WTP, Ph-1 CWP) in DCPP
- Reduction In Auxiliary Power by providing CW makeup in Cooling Tower by gravity from CWST instead of pump in DCPP
- Modification of suction duct for remaining 7 FD Fans in 2*25 MW Power Plant
- Installation of Lighting Energy saver in Sinter Plant, SAF.


CHAPTER-VIII

DEVELOPMENT OF INFORMATION TECHNOLOGY

8.1 Introduction

The Ministry of Steel and the PSUs under it constantly endeavour to be updated on matters relating to IT infrastructure, development and applications.

- The Computer Centre in the Ministry is equipped with Windows 2012 Server operational on 24X7 basis; state of the art client systems and Local Area Network (LAN) equipments such as switches and routers, which serve as a backbone for accessing information on Ministry-wide Local Area Network (LAN), Internet as well as operating Intranet based applications in the Ministry. Wi-fi setup has been established by NIC in the Ministry for the officials of the level of Deputy Secretary and above.

- Apart from NIC Central facility, about 250 client systems capable of handling present day Windows based software and Office automation suits are operational with Officials and Divisions in the Ministry.

- A LAN of about 250 nodes with Gigabit backbone is operational in the Ministry and is being extensively used for:

    - E-Requisition, Stock & Inventory Management System, Officer on Tour Information System, E-Submission & Approval System, Knowledge Management System and Steel MIS are operational on Ministry wide Intranet Portal

    - Electronic Dak and Diary

    - Sharing of files/documents

    - Collecting information/material on Annual Reports, Parliament Questions, Pendency, Tracking and Monitoring Applications (Dak/Diary receipts, VIP/PMO References, Cabinet Notes & Parliament Assurances etc,) from Divisions

    - Compilation and collection of replies of Parliament questions from Divisions in the Ministry and their onward transmission through E-mail to Rajya Sabha and Lok Sabha;

- Internet Connectivity for accessing the sectoral information has been provided to all Officials/ Divisions in the Ministry.

E-Governance applications

- As part of the e-governance programme, a Ministry-wide Internet portal is operational for sharing and disseminating information through a Bulletin Board services for Notices/Circulars/Office Orders among the users of the Ministry;

- The portal facilitates Electronic Dak/Diary movement of documents and other pendency monitoring applications.

- The facility for downloading of forms for sanction of leave and advances, medical re-imbursement; Annual Confidential Report Forms; Identity Card, staff car booking; Income Tax; Telephone Directory of Officials/ Divisions in the Ministry, organization chart etc., are also provided on the Intranet portal for the Officials/Staff of the Ministry.

- "e-office" software is being implemented in the Ministry with the assistance of DARPG. "e-Office" or any less-paper initiative primarily involves workflow automation and knowledge management including document records management, setting and controlling the workflow in the organization,

work allocation and tracking, maintaining audit trails, performance benchmarking and generating operational MIS.

- AADHAR based biometric attendance system has been implemented in the Ministry.
- Personal Corner for employee's salary statement, GPF & Income Tax statements. Bulletin Board Services for Office Memoranda, Office Orders and Office Circulars etc. are available on the intranet portal.
- The Internet portal also provides interface for accessing computer based systems in the area of tracking and monitoring of important references, cabinet notes & parliament assurances etc. to minimise pendency and improve delays in decision making.
- Implementation of Court Cases Monitoring System is in progress.
- As a part of E-Governance plan, the following Web Based systems have been implemented in the Ministry :
  - 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 it's PSUs.
  - Centralized Public Grievance Redressal & Monitoring System (CPGRAMS) has been implemented for facilitating Public & Pensioners Grievances in the Ministry and its PSUs.

Ministry's Official Website

- The bilingual web-site for Ministry of Steel (http://steel.gov.in) is operational.
- Migration of Ministry of Steel website to Content Management Framework(CMF) is in progress at centralized level in NIC Hdqtrs.
- Ministry's E-Book has also beem published on the website of the Ministry.

8.2 Steel Authority of India Ltd. (SAIL)

SAIL has been redefining old business models and overall business strategy by moving ahead in innovative usage of Information Technology (IT).

- SAIL with its continuous and focused IT endeavors has been able to bring the business operations of four out of five Integrated Steel Plants i.e. Bhilai Steel Plant, Durgapur Steel Plant, Bokaro Steel Plant, Rourkela Steel Plant as well as its marketing setup i.e. Central Marketing Organization within the ambit of ERP.
- Currently, ERP has already covered 91% of Steel production transactions and approx. 99% of entire sales volume.
- A comprehensive ERP Implementation Roadmap is finalized for ERP implementation at 5th Integrated Steel Plant i.e. IISCO Steel Plant, Corporate Office & remaining units.
- As an initiative towards transparency, Executive Performance Management System (EPMS) for appraisal of executives across SAIL is already functional. Taking one step further, an online system for appraisals has been introduced for non-executives of Corporate Office.
- Online money receipt of payments through SBI has benefitted SAIL in faster cash realization & elimination of manual errors.
- To promote 'Digital India Initiative' many manual forms were converted to e-forms and System generated automatic SMS/e-mail facility implemented for communicating with employees, customers & suppliers and e-procurement is being maximized.
- Mobile app employee’s interface has been launched for ease of access to Employee.


8.3 Rashtriya Ispat Nigam Ltd. (RINL)

RINL considers Information Technology as the vital enabler in improving the overall organizational efficiency, customer satisfaction, productivity, transparency and cost effectiveness. The highlights of IT initiatives and achievements during the year 2015-16 are as under:

Standards

Information Security Management System (ISMS) was taken up to protect critical data from threat. Desktops were kept under Active Directory for centralized management and control. Stage-1 Assessment of ISO 27001 certification audit was conducted.

Mobility

Mobile APP for Production cum Delays on both Android as well as on IOS was launched. Apps for Recruitment, Careers, Publications, VMO, Expansion and WRM Production were developed and deployed.

Enterprise Applications

- Enterprise Resource Planning went live - CRM (Customer Relationship Management) Module under ERP (Enterprise Resource Planning) has been implemented during the period and HCM (Human Capital Management) a HR module with payroll, first in Indian Steel Industry, is under implementation.
- Enterprise Messaging Service and E-desk system, an application for managing day-to-day activities electronically like e-Notice Board, Notifications, Task Monitoring etc was deployed.

Web Applications

Several portal / web applications were developed during the period which includes:

- The e-filing of Annual Property Returns as per Lok Ayukta.
- "DOPedia - Delegation of Powers Online Search-engine based Portal", first of its kind in Indian Public Sector Steel Industry.
- Learning Management System "GyanEra" and Personnel and Administration Contracts Portal.
- Comprehensive Delay Analysis System and Plant Data Management System.
- Electronic Payslip System was introduced for executive employees.
- Online filing of quarterly Rajbhasha Reports for all out-station offices.
- In order to raise awareness, open career choices, and take nuances of steel making to the new generation, 'Kids corner' has been introduced on the website of RINL. The site has been made interactive to explain the process of steel making in simple language with diagrams and illustrations.

Infrastructure & Statutory Projects

- In line with IB Guidelines Vulnerability Assessment for Level-1 & Level-2 Systems was completed.

8.4 NMDC Ltd.

In Human Resource Management System and Financial Accounting System following modules are added:

- PF Investment Accounting
- Furnishing scheme from procurement and payment

First Prize to MOILs Ukwa Mine at the National Energy Conservation Awards 2015.

- Mobile/Briefcase/Suitcase system
- For Control Room Production and Incident Reporting System
- Wage Support System.

8.5 MOIL Ltd.

MOIL has set-up a full-fledged Systems Cell 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:

- Computers have been installed at head office and mines for computerized working.
- Designed, Developed & Implemented Computer based applications to meet Computing & Data Processing needs of the various Departments viz, Sales & Marketing, Purchase & Stores, Employee's Payment and HR, Production & Quality and Cost & Finance of the Company.
- Ethernet based Local Area Networks (LAN) on Windows-2003 R2 platform is in place at Head Office, Nagpur. LAN has also been designed and developed at all the nine mines of the Company.
- A dynamic internet website on NIC Server.
- A dynamic intranet website on in-house MOILNET Server. As a security measure CISCO Firewall has been installed in the Networking System.
- For effective sharing of databases/ information and other resources on regular basis all the remotely located production units and HO are connected through VPN over Leased line, Broadband and VSAT. MPLS-VPN is expected to be in place by Jan-2016.
- 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 a 8 Mbps

(1:2) internet leased line on OFC. All the mines are provided with leased line/broad band internet connections.

- All Procurement of goods valuing Rs. 10 lakhs and above is through e-procurement portal of MSTC to bring transparency in procurement process.
- In order to raise awareness, open career choices, and take nuances of mining and ore production to the new generation, 'Kids corner' has been introduced on the website of MOIL (for Manganese Ore). The sites has been made interactive to explain the history/utility of Manganese ore in steel making in simple language with diagrams and illustrations.

8.6 MSTC Ltd.

The developments at MSTC Ltd. as far as IT infrastructure is concerned, are as under:

- Achieved STQC Certification on e-Auction process for Mining Lease/Composite License.
- Renewed for STQC Certification on e-Procurement service.
- Maintaining VPN connectivity among Regions and branches.
- Upgraded ISO 27001:2005 to ISO 27001:2013 certification for e-Commerce.
- Maintaining ISO 9001:2008 certification.
- Achieving CMMI Level 5/ Renewal of CMMI Level 3.

8.7 Ferro Scrap Nigam Ltd. (FSNL)

- New Official Website of FSNL has been launched.
- Online Appraisal System has been developed and implemented.
- The various departments of corporate office and units have been provided with computers. The areas related to Financial Accounting, Payroll, Material management have been computerised.
- FSNL Units are linked up through internet connections.
- Tenders are hosted on company's website fsnl.nic.in
- IPv6 Complied Server & CAT 6 Local Area Networking has been installed at CO.
- Firewall Fortigate 80C has been installed at CO and Fortigate 40C has been installed at Units.
- FSNL also planning to Install Disaster Recovery Site.

8.8 Hindustan Steelworks Construction Ltd. (HSCL)

HSCL has its own web site at www.hscl.co.in through which it conducts its business activities in a transparent manner. HSCL has more than 25 units spread all over the country. All the units maintain separate accounts of receipt and expenditure. Finally, Accounts of individual units are compiled for arriving at the overall accounts of the company. To streamline the financial operations and control of the company, the following Financial Systems have been introduced:

- Centralized cash Management System (CMS)
- Contract Reporting Management System (CRMS)
- Profitability Reporting Management System (PRMS)
- Billing Management System (BMS) and
- Material Management System (MMS).

HSCL is a fully e-procurement complied organisation, with all tenders for awards are decided on line through CPP Portal. Besides this, Bill payment status is reflected on the web site to ensure transparency in the business practice of the Company.

8.9 MECON Ltd.

MECON's offices at Ranchi, Bangalore and Delhi are equipped with state-of-the-art hardware, network and various Engineering softwares like REBARCAD, TEKLA, AERMODVIEW, STAAD.PRO, AUTOCAD, ETAP, CAESAR, PVLITE,AUTOPLANT, PDS etc. that facilitate quality design and timely completion of various projects.

MECON is using different project management software like Primavera, MS Projects and in-house developed project management software for planning and monitoring of different ongoing projects.

In-house developed web based applications like HR, Corporate Finance, Project Finance, MIS, Competency Mapping, e-Archive are in use for day to day activities.

8.10 KIOCL Ltd.

The use of IT in KIOCL has been in vogue since its inception in 1976 and spans across all its plants and offices. The main areas of computerization are:

- **Inventory and Materials Management:** The Company is using computerized inventory accounting and control system since 1980s. The design by Canadian mining companies which has unique procedures, forms and the codification with check digits was adopted. Later the System was upgraded and migrated to a web based platform.
- **Finance and Accounting:** The payroll accounting and generation of pay slips were computerized in the 80s. Now all major activities of Finance and Accounting system are fully automated on a web based platform with required reporting features. All major payments are done through RTGS.
- **IT- Infrastructure:** The infrastructure hardware and software are periodically upgraded and maintained. The company has deployed all-IP structured UTP based data networks with a fiber optic backbone at Mangalore and Bangalore. The 8 MBPS leased line at Mangalore and Bangalore and the internet connectivity at Kudremukh provide the VPN and internet connectivity at the locations. The VPN connectivity thus provides a single network access to all the applications through different locations of the Company.
- **Video Conferencing:** The internet leased line and the ISDN connections are used for Video Conferencing at Mangalore and Bangalore. The facility enables the meetings to be held across the locations periodically online.
- **E-Commerce:** Introduction of E-tendering, E-procurement and RTGS has resulted in reduced paperwork, increased transparency and reduced time. The sale of pallets is carried through E-Tender by a Class i/ii RSA/SA agency with SQTC certification. This has reduced the price discovery time considerably. All the procurements above a threshold value are done through e-Tender.
- **Plant Process Automation:** All the plants of KIOCL are fully automated and controlled from the Central Computer Rooms. This has resulted in reduced Manpower requirement, higher Man and machine safety and increased life of the equipments. The data collected through computerized control system is used in carrying out, periodic preventive maintenance, estimation of components life thus resulting in increased productivity.

8.11 EIL, OMDC & BSLC

- The companies have taken initiative to publish all tenders /EOI in Companies Corporate Website and Central Public Procurement Portal (CPP Portal).
- Procedure for Sale of Iron Ore and Manganese Ore is designed through e-auction mode only.
- Biometric based Attendance System and CCTV based surveillance system is installed at Corporate office.
- Maintenance of Leave records and processing of salaries is being done through customized payroll system.
- Tally based Accounting Package is being used to payment vendor bills and different employee entitlements through RTGS and e-payment mode.

CHAPTER-IX

SAFETY

9.1 Introduction

Safety is an important aspect in functioning of any industry. It is important not only for its employees and workers but also for the environment and the nation. Iron and Steel production being a complex and hazardous activity, needs to prevent injuries and accidents, provide a healthy working environment and guard against all possible hazards and risks to be adequately recognised and taken care of.

9.2 Steel Authority of India Ltd. (SAIL)

Salient aspects of Safety Management System & Practices in SAIL include the followings:

9.2.1 Management Commitment

Ensuring accident free working in steel plants has been one of the prime priorities of the SAIL Management, which is committed to achieve the target of 'Zero Accident'.

Safety is monitored at the highest level of management i.e. Chairman and Directors' level as well as by the Chief Executives of respective plants/units to provide impetus on inculcating safety awareness and improving human behavior towards safety. Safety is discussed as first item in all appropriate forums, and directions are issued for adoption of all requisite measures to bring continuous improvement in safety standards.

SAIL is implementing OHSAS-18001, an advanced Safety Management system and they also have an 'Occupational Health and Safety Policy'.

9.2.2 Safety set up in SAIL

Full-fledged Safety Engineering Department looks after the safety management aspects under respective Head of Works of all Plants & Units of SAIL. At corporate SAIL Safety Organization (SSO), Ranchi also coordinates and monitors the operational/fire safety activities undertaken at different plants/units of SAIL and provides appropriate corporate thrust on safety management at organization level.

Safety measures at Bhilai Steel Plant

9.2.3 Systems & Procedures

- Conformance with Management systems like OHSAS-18001:2007 and SA 8000:2008.
- Safety aspects are incorporated in Standard Operating Procedures (SOPs), Standard Maintenance Procedures (SMPs) and Safe Work Instructions (SWI) and adhered.
- Work permit system followed for safe execution of jobs.
- Protocols framed and adhered for Capital / Major repair jobs.
- Unsafe acts and conditions are identified during preventive inspections/surprise checks and control measures taken and followed up.
- Joint inspections are conducted for fire prone areas including Cable galleries, Oil cellars etc and functioning of fire detection & protection systems are closely monitored. Mock drills are conducted for emergency preparedness.
- Worker's participation in Safety Management is encouraged through Apex/ Departmental Safety Committees at Plants / Units. Also at National Steel Industry level through Joint committee on Safety, Health and Envt. in the Steel Industry (JCSSI), secretarial functions of which is managed by SSO.
- Specific Medical examination made mandatory for issuance of Height Pass for Working at Height and also for Crane Operators and Mobile Equipment Operators.
- Inter plant networking in Occupational Safety & Health for coordination and monitoring established by SSO for which NOHSC, BSP is functioning as the Central agency.
- A MOU has been signed with NSC India for Safety Audit and Training for utilizing the expertise of both SAIL & NSC in SHE activities.

9.2.4 Safety Audit/ Monitoring

- Safety Audits are conducted at Plants and units in following manner.
  - ❖ Internal Safety Audits by Safety Engineering Deptt. of respective Plants.
  - ❖ Safety Audits by SAIL Safety Organisation associating representatives from sister Plants/Units
  - ❖ Safety Audits by external agencies e.g. NSC,India, agencies recommended by Regional Statutory Authorities, OHSAS auditors etc.
- Management review for sustaining accreditation to OHSAS-18001,SA 8000 etc.
- Meeting of 'Heads of Safety' and 'Heads of Fire Services' of Plants/ Units are organised at specified interval.
- APP for Safety and Fire Services activities are formulated for each plant/unit and SSO.
- Round the clock safety surveillance made for all major Capital repair / Shutdown jobs to ensure safe completion of the jobs.

9.2.5 Awareness & Training

- Awareness generation drives and campaigns are launched time to time for enhancing the standard of Safety, Occupational Health & Work Environment.
- Information pertaining to Safety issues is telecast through local TV network of Plants.
- Skill oriented job specific safety training is imparted in plants/ units at regular interval.
- Audiovisual aids and Safety films are used during imparting Safety trainings.
- Need based Training programme e.g. 'Safety Management', 'Chemical Safety', 'HAZOP study', 'Safety Audit' and 'Process Safety Management' was organised by SSO with the help of external faculty for the Departmental Safety Officers/ Line Managers / Safety Inspectors of plants and units.


9.2.6 Usage of Personnel Protective Equipment and Safety Devices

- User friendly Personal Protective Equipment (PPE) are provided and its usage are monitored.
- Full -body harness with double lanyard is used for height safety.
- Advanced PPEs, Safety devices, Gas monitoring devices are also introduced time to time.

9.2.7 Contractor Workers' Safety

Among the identified thrust areas, high priority has been accorded towards enhancing safety standards at contractor's work areas in view of their deployment in both Projects & Works related jobs. Concerted efforts are being made to train and educate the persons coming from different socio economic background about safe working inside works. Guidelines in vogue in this area include safety and penalty clause in contracts, system of site inspections and issue of safety clearance before start of jobs, deployment of safety officers etc.

9.2.8 Accident Analysis , Investigation & Compensation

- Reportable Lost Time Injury Frequency Rate (RLTIFR)-For the period April 2015-Dec 2015 : 0.22 (as against MOS target of 0-0.25).
- All accidents are investigated, analysed and remedial actions taken to prevent recurrence.
- Recommendations of 'On- the- spot study' of fatal accidents are disseminated amongst all plants & units for implementation of relevant actions to prevent its recurrence.
- In case of regular employees, the compensation is paid as per the company policy whereas for contract labour, compensation is paid as per the provisions of Employees State Insurance Scheme by the Employees State Insurance Corporation.

9.3 Rashtriya Ispat Nigam Ltd. (RINL)

9.3.1 Management Commitment

Continuous efforts of RINL on the implementation of safety standards, monitoring of risk control and other proactive measures have resulted in reduction / elimination of potential hazards. Several measures are being taken up to achieve zero accident and to bring positive Safety Culture in the company. Routine and non-routine activities in the plant have been identified including the Expansion area as part of OHSMS and Hazard Identification and Risk Assessment (HIRAs) was carried out. All the safety controls and measures are identified and same are being monitored and implemented for all the activities.

9.3.2 Safety setup in RINL: To encourage employees' participation in Occupational Health and Safety Management, one Central Safety Committee and 30 Departmental Safety Committees were formed with equal participation from recognized trade union representatives and management representatives.

9.3.3 Safety Promotion: As part of the Safety Promotional activities, the National Safety Day Celebrations were conducted by involving both regular and contract workers' participation in various safety competitions. Safety Week celebrations were also conducted in Works Division as well as in Expansion Units.

The highlights / measures taken during the year 2015-16 (upto December, 2015) :

- VSP recertified for OHSAS-18001:2007 Standard.
- Received two Ispat Suraksha Puraskar awards for no fatal accident in Rolling Mills & COCCP Zones for the year 2015.
- Plant level mock drill was conducted with the theme of 'LD gas leakage' in the presence of the Joint Chief Inspector of Factories and Inspector of Factories, A.P Govt,
- A special Safety awareness programme on Behavioral Base Safety, Legal aspects and Hazard Identification & Risk Assessment was organized for the employees of different departments.
- Organized seminars with the help of experts from DGFASLI.

9.3.4 Safety Audits and Inspections: Internal safety audits have been conducted as per the schedule in all major and minor departments by the concerned Departmental Safety Officer and by Qualified Internal OHSAS Auditors. External Safety Audits have been conducted once in a six months by the Lead Auditors of OHSAS Certifying Agency. All the non-conformities raised by the Auditors were complied. As part of statutory requirement, External audit is being conducted by an External Expert Agency in the field of Safety. All the points raised by the Agency were compiled and the report was submitted to Factories Department. In addition to that Regular inspections were also conducted throughout the plant by the Zonal Safety Officers. Apart from the above, Officials from the Factories Department, Govt. of AP have carried out special safety inspections throughout the plant. All the points raised by them are being complied.

9.3.5 Emergency Management Plan: To ensure the emergency preparedness during the emergency situations, comprehensive emergency management plan is devised in Visakhapatnam Steel Plant in line with the Circular issued by Ministry of Steel and a Central Control Room at Plant Control is identified to co-ordinate various activities during any emergency situations.

9.3.6 Safety Training and Awareness Campaign: Nearly 5000 regular employees were covered in regular safety training programmes and about 10000 contract workers were given safety induction training and refresher training. Apart from that, specialized safety training programmes were conducted regularly in the area of Behavioural Based Safety, Legal & Other requirements, Safety in Material Handling, etc.

9.3.7 Personal Protective Equipment: All the regular employees are provided with required PPEs and the usage of the same is being monitored. Also, all the contract workers were issued with the required PPEs by the Contractors and the usage of the same is being ensured at the site.

9.4 NMDC Ltd.

NMDC has its training centers in all its projects. They are equipped with infrastructure as required under Mines Vocational Training Rules. These centers cater to the needs of basic training, refresher training and training for skilled workers and also for those injured on duty. In each mining project of NMDC sufficient number of workmen inspectors are nominated / appointed for mining operations, mechanical and electrical installations as per statutory requirements. Safety Committees have been constituted in every operating mine and safety meetings are held every month discussing the safety matters and corrective actions related to work atmosphere.

Man days lost per 1000 man days worked for the year 2015-16 (upto Dec.,15) is 0.34.

9.4.1 OHSAS 18001:2007 Certification:

NMDC Projects - BIOM, Kirandul Complex, BIOM, Bacheli Complex , Donimalai Iron Ore Mine and DMP, Panna are accredited with OHSAS 18001:2007 Certification.

9.4.2 Safety Management System:

Safety Management system has been implemented in all NMDC mines.

9.5 MOIL Ltd.

All the Mine working is being regularly supervised by Competent Supervisors like Mine Mate, Mine Foremen & qualified Mining Engineers. Safety Inspections are also being carried out during the working shift by Workmen, Inspector, Safety Officer, Mine Manager & Agents. Internal Safety organization headed by General Manager (Safety) at H.O. Level is co-ordinating with DGMS & carries out inspection of the mines from time to time.

Regular Safety Committee meeting are held at mines where day to day Safety aspects are discussed with the participation of workers representative. Unsafe Acts and Mine Accidents are analyzed in details to avoid any recurrence.

9.5.1 Risk Assessment and Risk Management: Risk assessment study has been conducted in all major manganese mines, underground as well as opencast mines by experts and safety management

plan has been made as per the requirement of DGMS. The main purpose of risk management plan is to identify risk in various activities, analysis of risk evaluation and prioritization of risk management and mitigation plan of risk.

9.5.2 Occupational Health and Safety Management (OHSAS 18001:2007): In the area of occupational health and safety management system, MOIL received OHSAS 18001:2007 certificate for Balaghat, Dongri Buzurg, Chikla, Kandri, Munsar and Gumgaon mine.

9.6 MSTC Ltd.

MSTC being a trading organisation does not have any plant/workshops. However, necessary measures are there in all MSTC's offices including attendance of a doctor during office hours.

9.7 Ferro Scrap Nigam Ltd. (FSNL)

Constant motivation of employees through regular monitoring is ensured to encourage observance of safety precautions & safe working practices. Safety & allied aspects are widely covered in the training calendar prepared for the whole year to ensure proper training of the employees on safety. The training is imparted to the employees through reputed & renowned agencies like National Safety Council etc.

Apart from training, Safety Day celebrations, consisting of debate competitions, Essay/Slogan writing competitions etc. are also organized by FSNL, wherein the employees take part enthusiastically.

9.8 Hindustan Steelworks Construction Ltd. (HSCL)

HSCL has revamped its Safety Management & Practices in line with the nature of activities and taken the following measures to ensure safety at work site:

- Publication of Safety Manual of the Company. This manual has been developed to identify the minimum requirement of safety practices for construction agencies that require personnel to perform construction activities.
- Publication of Safety Hand Book for construction workers outlining important issues on safety and health that should be paid attention to at construction sites.
- The Company has set up a Control Room at Head Office for monitoring Safety aspects of more than 25 units of the Company spread over the country. The set up is headed by a Nodal Officer (Safety) directly reporting to CMD.
- Fully dedicated Safety Officers have been posted at Company's major units, with one executive designated as Officer - in-charge, Safety. Small units have two Safety Officers each and at the big steel unit Bhilai, where major Capacity Expansion packages are under execution, has 11 Safety Officers along with one Safety Consultant.
- Safety Committees have been constituted at different major units for deliberation on the issues related to safety and take action for improvement and to ensure use of Safety appliances and conduct enquiries into accidents, if occurs any.
- Regular training programmes are organized at major steel plant units for workmen and supervisors and executives connected with project execution on Emergency Preparedness Plan, Hazard Identification and Risk Assessment.

9.9 MECON Ltd.

MECON has design and consultancy offices and does not have a manufacturing unit. 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 and Disciplinary and Appeals Rules of the Company so as to ensure proper compliance of Safety Rules. As a result, no untoward incident has taken place during the year in MECON.

9.10 KIOCL Ltd.

KIOCL Ltd. has a separate department called Training & Safety Department and Occupational Health Centre wherein an Engineer and a qualified Doctor together are in charge of looking after safety & health aspects of employees at Plant level.

- KIOCL is compliant with OHSAS : 18001 : 2007 certification for Occupational Hazardous and Safety Management System.
- Training programmes are being conducted for contractual workers who are coming for dismantling structures and other related works to inculcate safety consciousness among them. Standard Operating Procedure Manual for safety (SOP) prepared and distributed to other units. Refresher Training, First Aid Training, Fire-fighting and Safety Awareness Training Programmes are conducted on need basis.
- The onsite emergency plan approved by Director of Factories is in existence for both Pellet Plant and Blast Furnace Unit. The same is being updated as and when there is change in plant condition and emergency team members.
- Workers participation in safety Management System is one of the important criteria adopted by the Company. Area wise Safety Committees are formed. Workers participation in these Safety Committees is ensured.
- Safety Inspections are carried out regularly once in two months by the Safety Officer along with concerned department engineers and Safety Committee members. Safety aspects are discussed in the safety meetings, which are held once in every quarter and suitable actions are taken for implementations of the shortfall.
- Various Training programmes are being conducted to inculcate Safety consciousness and to develop the human resources. As against year 2015-16 MoU target of 2817 and, KICOL has achieved 2700 mandays (95.8%) and 187 mandays training for contract workers on Work place Safety.
- The onsite Emergency Mock Drills are conducted once in 6 months in Pellet Plant and Blast Furnace Unit.

9.11 EIL, OMDC & BSLC

Companies take safety measures according to provision of the Mines Act, 1952 in terms of Rules, Regulations and Guidelines towards safety of employees engaged in mining and allied activities. Necessary safety devices, tools and implements have been provided to the concerned employees. Safe practices pertaining to different activities in mining operations are displayed through participation of workers in safety exhibitions locally as well as regional basis. New practices are also regularly adopted by visiting similar mines. Basic and refresher training is imparted to the workers in the Vocational Training Center & from different disciplines and operational activities in the mines.


CHAPTER-X

WELFARE OF WEAKER SECTIONS OF SOCIETY

10.1 Introduction

The Ministry of Steel comply with the Government guidelines with regard to welfare of weaker sections of the society. Out of total manpower of 195 employees in the Ministry as on 05.2.2016, 42 belonged to SCs (21.53%), 13 belonged to STs (6.6%) and 19 belonged to OBCs (9.74%). The posts belonging to Secretariat Services are filled by Department of Personnel and Training.

10.2 Steel Authority of India Ltd. (SAIL)

SAIL follows Presidential Directives on Reservation for Scheduled Castes and Scheduled Tribes in the matter of recruitments & promotions. As on 01.01.2016, out of total manpower of 90184, 14726 belonged to SCs (16.33%), 12763 belonged to STs(14.15%) and 10859 belonged to OBCs(12.04%).

SAIL plants and units including mines are situated in economically backward regions of the country with predominant SC/ST population. Therefore, SAIL has contributed to the overall development of civic, medical, educational and other facilities in these regions. Some of the contributions are:

- Recruitment of non-executive employees, which comprise over 84% of the total employees, are carried out mainly on regional level and hence a large number of SCs/STs and other weaker section of the society get the benefit of employment in SAIL.
- Over the years, a large group of ancillary industries has also developed in the vicinity of Steel Plants. This has created opportunities for local unemployed persons for jobs and development of entrepreneurship.
- For jobs of temporary & intermittent nature, generally contractors deploy workmen from the local areas, which again provide an opportunity for employment of local candidates of economically weaker section.
- Establishment of SAIL steel plants in economically backward areas has given a fillip to the economic activities thus benefiting the support population providing different types of services.
- Steel Townships developed by SAIL have the best of medical, education and civic facilities and are like an oasis for the local Scheduled Castes, Scheduled Tribes and other population who share the fruits of prosperity along with SAIL employees.

SAIL has also undertaken several initiatives for the socio-economic development of SCs/STs and other weaker sections of the society, such as:

- Special School 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, stationery items, school bag, water bottles and transportation in some cases. The schools now provide education to more than 1600 children.
- SAIL plants have adopted 200 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, Gyanodaya Hostel and an exclusive Gyan Jyoti Yojana for nearly extinct Birhor Tribe.
- For Skill Development and better employability, more than 4000 tribal school passouts have been sponsored for coaching in premiere institutes for IIT/JEE entrance examinations and for trainings along with monthly stipend, accommodation, transportation and fooding facility at various ITIs, Nursing and other vocational training institutes.
- No tuition fee is charged from SC/ST students studying in the Company run schools, whether they are SAIL employees' wards or non-employees' wards.
- Free medical health centres for poor have been set up at Bhilai, Durgapur, Rourkela, Bokaro providing free medical consultation, medicines, etc. to the peripheral population mainly comprising of SC/ST and weaker sections of society.

- Villagers are given free treatment – outdoor and indoor – in the mines hospitals of Kiriburu, Gua & Chiria when recommended by Manki/Munda (Local Tribal Village Heads) of the peripheral villages which mainly helps the ST community people and other weaker sections of society.

Steps taken for propagating the reservation policy

- Internal workshops for Liaison Officers for SC/ST and other dealing officers of SAIL plants/units are conducted at regular intervals through an external expert to keep them updated on the reservation policy for SC/ST 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 & 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.

10.3 Rashtriya Ispat Nigam Ltd. (RINL)

As on 31.12.2015, the total manpower of RINL was 17954 comprising of 2979 SCs (16.59%), 1306 STs (7.27%) and 2229 OBCs (12.42%).

Grant under Dr. B R Ambedkar Merit Recognition Scheme - SC and ST Categories

These awards are meant exclusively for the children of employees belonging to Scheduled Castes and Scheduled Tribes. Under this, an award of Rs.1500/- per month for full duration of the course is given to those children who qualify 12th class or intermediate exam and seek admission in Degree courses in Engineering / Architecture / Medical / Veterinary /Dentistry/ Agricultural Sciences/ Pharmacy / Law. A total of 08 such awards are given to children of SC employees and 04 such awards to children of ST employees.

Welfare of SCs/STs

A Death Fund Scheme for employees belonging to SC/ST categories was introduced in January 2009, wherein Rs. 50/- is being deducted from the salary of the members of the association in the event of death of any member and the amount so collected is given to the dependent of the deceased member.

10.4 NMDC Ltd.

The total number of employees in NMDC as on 31.12.2015 was 5641 out of which 981 belong to Scheduled Castes (17.39%), 1192 to Scheduled Tribes (21.13%) and 864 to OBCs (17.09%)

Company has been able to fill the reserved vacancies so far and there is no backlog.

10.5 MOIL Ltd.

MOIL is a labour intensive organization with 6340 employees on its rolls as on 31.12.2015. About 78.42% of the total strength belongs to SC/ST/OBC out of which 45.33% belongs to SC/ST. MOIL is also taking keen interest in development of the down trodden people living in the vicinity of the mines situated in remote areas as detailed below:

- Adopted villages near the mines and provided drinking water facilities, road maintenance, periodical medical check ups and treatment to the people living in these villages.
- Provided financial aid, stationery, books etc. to the school adjacent to the mining areas.
- Provided sewing machines to women for their development and self-employment.
- Organised training classes for self employment scheme.
- Provided tri-cycles to the physically challenged persons.

10.6 MSTC Ltd.

The total number of employees in MSTC Ltd as on 31.12.2015 was 304, out of which, 55 belonged to SCs (18.09%), 17 to STs (5.59%) and 57 to OBCs (18.75%). Out of 16 persons recruited during the year, 10 belonged to OBCs, 2 to SCs, 3 to STs and 01 to person with disabilities.


The directives in matters concerning recruitment and promotion regarding the weaker sections have been duly complied with. All Departmental Promotion Committees and Selection Committees (in case of recruitment) were constituted with representatives of SC/ST and one lady as member of the Selection Committee. Apart from this, relaxation in standard is given for the purpose of granting scholarships to the wards of the employees belonging to SC/ST community. During the year till date, 44 employees have been inducted, out of which, 3 persons belong to ST Community, 10 persons belong to OBC category, 2 persons belong to SC community and 1 person with disabilities.

During the year, 41 employees have been trained till date in various training programmes in both in-house and external training programmes. Out of this, 11 employees have been sponsored for Senior Management Development programmes on Leadership, Strategy, innovation, Team building, etc. and 26 employees to skill development programmes on e-Commerce and Information Technology. During the year, 4 ST, 6 SC and 11 OBC (1 PWD) employee were sponsored in the above training programmes.

10.7 Ferro Scrap Nigam Ltd. (FSNL)

Out of the total manpower with the Company i.e. 915 as on 31.12.2015, 176 belonged to SCs (19.23%), 104 belonged to STs (11.37%) and 123 OBCs (13.44%). The Promotion Policy as well as various welfare measures adopted by FSNL takes adequate care of welfare of the employees belonging to weaker sections of SC/ST/OBC communities.

10.8 Hindustan Steelworks Construction Ltd. (HSCL)

As on 31.12.2015, out of 68 employees on the strength of the company, 09 belonged to SCs (13.23%), 03 STs(4.41%) and 07 to OBCs (10.29%). HSCL has been assisting in providing schools in areas where SC/ST/OBC & Physically Handicapped employees mostly reside. Children of SC/ST, OBC & Physically Handicapped employees get due preference in the matter of schooling at Projects. Plots were allotted to workers for making hutment in the land allotted at sites of client with electricity, water supply, and sanitation arrangement etc. Assistance is given for supply of drinking water. Directives of the Central Govt. with regard to recruitment and promotion in respect of SC/ST/OBC & Physically Handicapped employees are strictly adhered to. The Company also undertakes implementation of CSR projects on behalf of other PSUs for the benefit of the downtrodden people of the country.

10.9 MECON Ltd.

As on 31.12.2015, out of 1497 employees on the strength of MECON, 275 belonged to SCs (18.37%), 155 STs (10.35%) and 180 OBCs (12.02%). MECON is fully aware of its social responsibilities for development and welfare of weaker section of the Society. It has adopted adequate measures for safeguarding their interests and welfare such as Community Education Scheme, Resource Generation Scheme, Vocational Training Programme in Shyamali Colony, Ranchi, Community Health Programme, assistance to disabled persons at Cheshire Home, village based programme, safe drinking water projects etc.

10.10 KIOCL Ltd.

The total number of employees in KIOCL as on 31.12.2015 is 938 out of which 144 persons belong to Scheduled Caste (15.33%), 51 persons belong to Scheduled Tribe (5.43%) and 155 persons belong to Other Backward Classes (16.52%).

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

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

10.11 EIL, BSLC & OMDC

The total number of employees in EIL, BSLC & OMDC as on 31.12.2015 is 1298. About 81.43% of the total strength (1057 out of 1298) belong to SCs/STs/OBCs, out of which, 290 belonged to SCs (22.34%), 612 to STs (47.15%) and 155 to OBCs (11.94%).


CHAPTER-XI

VIGILANCE

11.1 Activities of Vigilance Division of the Ministry of Steel

The Vigilance unit of the Ministry is headed by a Chief Vigilance Officer (CVO) of the rank of Joint Secretary appointed on the advice of the Central Vigilance Commission (CVC). The CVO with one Director, one Under Secretary and supporting staff, functions as the nodal point in the vigilance set-up of the Ministry. The vigilance unit is inter-alia responsible for the following in respect of the Ministry of Steel and the PSUs under its administrative control:

- Identification of sensitive areas prone to malpractices/temptation and taking preventive measures to ensure integrity/efficiency in Government functioning;
- Scrutiny of complaints and initiation of appropriate investigation measures;
- Inspections and follow-up action on the same;
- Furnishing the comments of the Ministry to the Central Vigilance Commission(CVC) on the investigation reports of the Central Bureau of Investigation(CBI);
- Taking appropriate action in respect of departmental proceedings on the advice of the CVC or otherwise;
- Obtaining first and second stage advice of the CVC, wherever necessary;
- Appointment of CVOs in the PSUs in consultation with CVC and DoP&T;
- Examination of complaints regarding allegations against the officials/officers of the PSUs under this Ministry for appropriate action;
- Maintenance and scrutiny of immovable property returns of officers and staff working in this Ministry;
- Eight CPSEs are functioning under the administrative control of the Ministry. The Vigilance Unit in all PSUs is headed by a CVO appointed by this Ministry in consultation with the CVC and the DOP&T.

The Ministry reviews the vigilance activities in the PSUs through individual meetings and through monthly checklist, periodic returns and statements sent by the CVOs. Other than this, depending on the backlog of pending references, the Ministry also held discussions with the CVOs of concerned PSUs on the need basis. All circulars containing instructions and guidelines on different aspects of vigilance management received from the CVC, were also circulated to the CVO's of the PSUs for compliance. Progress thereon, in the form of follow up action taken, was monitored.

During 2015-16 (01.04.2015 to 31.12.2015), 32 CVC references were received and 28 CVC references were disposed off. From other sources, 56 complaints were received and 52 were disposed off.

During the period meeting was held with the CVOs of Steel PSUs wherein the issues regarding transparency in recruitment process, adoption of fair promotion policy, transparency in public procurement, increasing of e-procurement, regular updation of purchase manual, conducting of DPCs within stipulated time, rotation of officers of occupying sensitive posts in PSUs, disclosure of APARs of all executives were discussed and necessary instructions were issued to all CMDs/CVOs of Steel PSUs. All CMDs of Steel PSUs were also requested to ensure full compliance of instructions/guidelines are issued by CVC, DoPT and DPE from time to time on various issues.


11.2 Steel Authority of India Ltd. (SAIL)

SAIL Vigilance is laying emphasis on preventive and proactive activities to facilitate an environment enabling people to work with integrity, efficiency and in a transparent manner, upholding highest ethical standards for the organization. Accordingly, following activities were undertaken during the period April'15-December'15:

- A total of 93 workshops involving 2182 participants were organizedat various plants and units of SAIL,for enhancing Vigilance Awareness on Whistle Blower Policy, Purchase/Contract Procedures, RTI Act, Conduct & Discipline Rules, System and Procedures followed in SAIL, etc.
- A total of 2034 periodic checks including file scrutiny and Joint Checks were conducted in vulnerable areas of different Plants / Units of SAIL
- Saving of approx. Rs. 728 lakhs accrued from the vigilance investigations and preventive vigilance activities mainly on account of the Surprise Checks.
- The following three (3) thrust areas have been undertaken across SAIL Vigilance:

  i) Scrutiny of files pertaining to high value projects. : 13 high value project /procurements cases have been selected for scrutiny based on CTE guidelines.

  ii) Scrutiny of contracts awarded on Single tender enquiry (proprietary purchase basis).

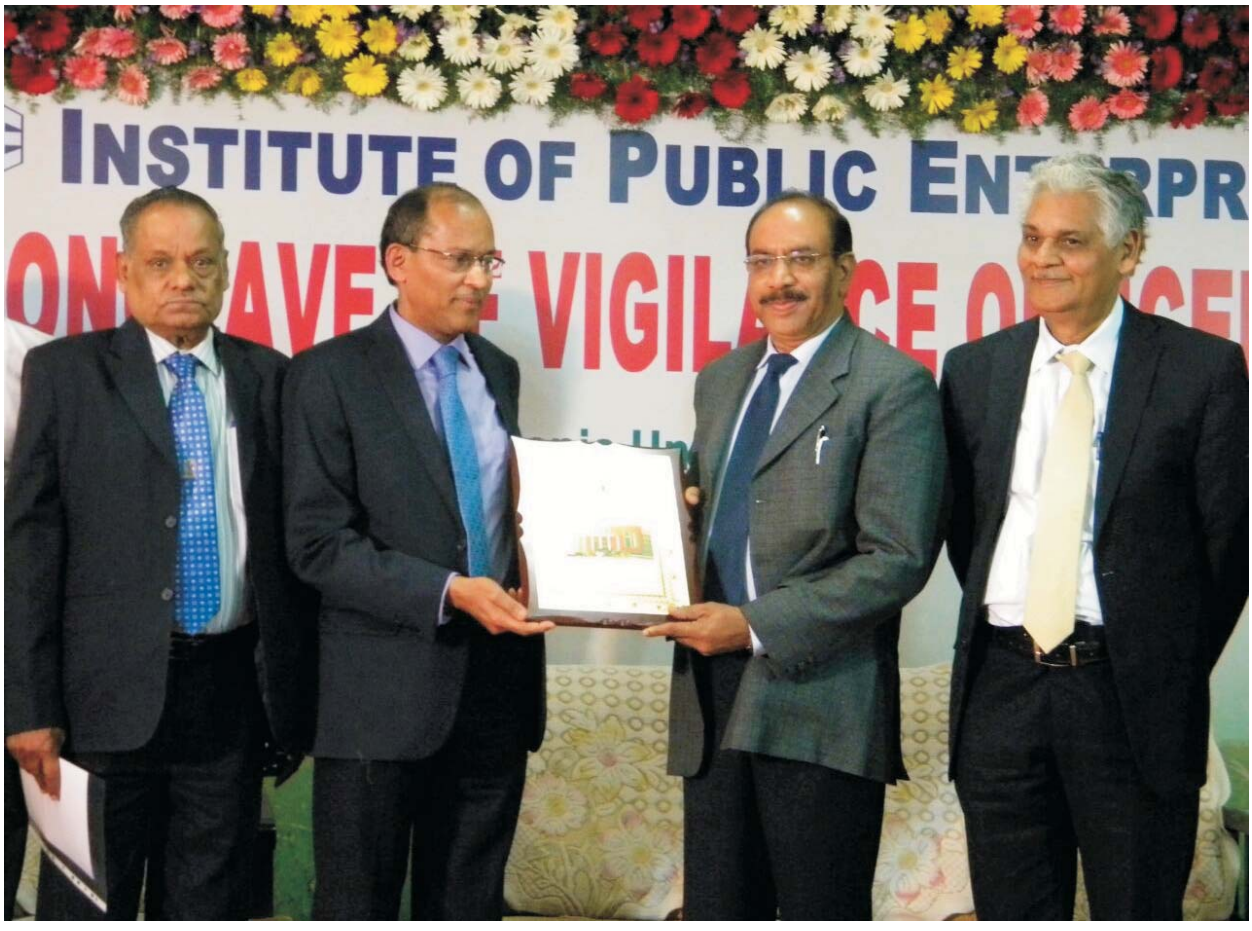
  iii) Surveillance in the areas of receipt, sampling & testing of high value raw materials
- A revised Recruitment Manual of SAIL was issued on 12.05.2015 after incorporating inter alia the suggestions of Vigilance. The manual which was vetted by SAIL Vigilance was issued with the approval of SAIL Board.
- Vigilance provides vital inputs to the operating authorities for improving the prevailing systems for bringing about more transparency. Accordingly, eight major System Improvement Projects (SIPs) were undertaken at different Plants/Units of SAIL.
- Internal Audits as integral part of ISO 9001:2008 Quality Management System have been conducted in vigilance departments of SAIL to monitor the efficacy of the implemented system.
- Vigilance Awareness Week 2015 was observed from 26.10.2015 to 31.10.2015 across all the plants / units of SAIL on the theme of "Preventive Vigilance as a tool of Good Governance".

11.3 Rashtriya Ispat Nigam Ltd. (RINL)

Vigilance Wing of RINL took various measures to promote transparency and integrity in RINL with specific focus on preventive vigilance. Information technology was leveraged for bringing about greater transparency through e-initiatives like e-auction, e-reverse auction and e-payment etc. As on 30.09.2015, e-reverse auction constituted 74.44% of the procurement through tenders other than single tenders / proprietary cases, e-auction constituted 100% of the disposals by Stores. 100% of Marketing transport contracts were finalized through reverse e-auction and 99.81% payments were made through e-payments.

The following activities were undertaken to promote transparency and integrity in RINL during April-December,2015:

- Conducted 229 system surveillance checks including 34 quality checks and 60 rake/road re-weighments.
- Organized 20 Vigilance Awareness Sessions on Preventive Vigilance / Ethics Observed Vigilance Awareness Week - 2015 with the theme "Vigilance as a toll of good Governance".
- Two Vigilance officers of RINL bagged 'National Vigilance Excellence Award-2015'.



Vigilance Excellence Award by Institute of Public Enterprises - RINL

11.4 NMDC Ltd.

NMDC vigilance department had taken several initiatives during the year. Various programmes were conducted for awareness on vigilance matters for the employees of the NMDC . During the year (from Apr - Dec, 2015) 92 surprise checks, 72 regular inspections and 8 CTE type inspections were conducted. Complaints received were taken up for investigation and necessary disciplinary action wherever required was recommended.

Vigilance Department in NMDC is certified under ISO 9001:2008 conforming to the Quality Management System. In-house quarterly magazine of the Vigilance Department "Sphoorthy" is being published periodically.

As part of implementation of "Leveraging of Technology for transparency" in all the transactions, information about limited tender enquiries above Rs. 30 lakhs, details of contracts concluded above Rs. 10 lakhs, works awarded on nomination basis, single tender basis above Rs. 1 lakh, information regarding bill payments to the contractors etc., are provided on the company's website. Efforts to encourage e-procurement, e-tender, e-auction are being made continuously.

NMDC has adopted implementation of Integrity Pact since November, 2007. The threshold limit of Rs. 20 crore in case of civil works and contracts and Rs. 10 crore in case of procurement is being followed. Till date, the Integrity Pact has been entered into 75 contracts with a value of Rs. 20131.65 crore. As such, more than 90% of the total value of the contracts are covered under Integrity Pact. In addition, implementation of e-procurement and e-auction have been taken up.

The Vigilance Awareness Week commenced from 26.10.2015 to 31.10.2015 with the administration of pledge to all the employees by the Director(Technical) and theme was "Preventive Vigilance as a tool of Good Governance".

11.5 MOIL Ltd.

The functioning of vigilance department includes preventive as well as proactive vigilance with the main thrust is on system improvements in the organisation. Various activities of vigilance department during 2015 are as under:

- Surveillance audit of ISO-9001:2008 Certificate of Vigilance Department has been carried out in the month of May 2015. ISO certificate is valid till 22.05.2017
- 42 nos. of general & surprise inspections and scrutiny of 25 files carried out.
- E-procurement is being done for purchases and work contracts above threshold value. The threshold value for purchase is Rs.10 lakhs and for Works contract is Rs. 1.00 Cr. The Disposal of scrap/ surplus items and sale of Manganese Ore are being done through e-auction.
- Effective use of website and leveraging technology in discharge of regulatory, enforcement activities and dealing with complaints is being done. The main areas concerned are contracts & procurements, applications for registration of contractors/ suppliers/ consultants/ vendors etc. Status of bill payments to contractors / suppliers is published on website. All tender documents, online applications for recruitment and status, notices and other proformas are posted on the websites.
- Various manuals such as Purchase Manual, Works and Contract Manual, Personnel Manual, Marketing Manual, etc, have been prepared and posted on website.
- Action is taken to ensure that tenders / contracts issued above a threshold value of Rs.30 lakhs are being posted in the website regularly every month and monitored.
- 27 posts have been identified for job rotation considering the sensitivity of the posts and tenure completion.
- Vigilance Awareness Week was observed from 26th October 2015 to 31st October,2015 at all the locations / offices of MOIL Limited. On this occasion vigilance department came out with the 4th annual issue of vigilance magazine "SHUCHITA"

Inauguration of Vigilance Awareness Week at MOIL

11.6 MSTC Ltd.

The prime focus of the Vigilance Department of MSTC has been on preventive Vigilance through the use of leveraging technology. The main thrust is to suggest systemic improvement in the identified vulnerable area of corruption in order to minimize the human interface in business transactions of the Company.

The highlights of some of the measures taken in this connection during 2015-16 are as under:

- Structured Meetings are being held quarterly by the CVO with the CMD.
- Surveillance Audit was conducted in the month of May'2015 as integral part of ISO-9001:2008 Quality Management System to monitor the efficacy of the implemented system.
- Interactive Sessions were being organized with employees both at the Head office and various regional offices/branch offices to create vigilance awareness.
- Training Programmes/Workshops were being organized for Vigilance Officials.
- Selling Agency Manual is being updated upon the suggestions of the Vigilance Department.
- Purchase Manual is being implemented on the suggestion of the Vigilance Department.
- Meeting with Independent External Monitor was held in the year to review the implementation of the Integrity Pact.
- Details of the awarded contract, information regarding bill payments to the contractors etc., are being provided on the company's website.
- Purchases above INR 50,000 are being done through MSTC's own in-house e-Procurement portal which is STQC certified.
- Online writing of Annual Performance Appraisal Report has been developed to ensure utmost transparency. Full disclosure of APAR is in place and executives have been given the opportunity to make representation against the assessment.
- Online Inventory Management System implemented.
- Vigilance Awareness Week - 2015 was organized with the theme "Preventive Vigilance as a tool of Good Governance" from 26-10-2015 to 31-10-2015.

11.7 Ferro Scrap Nigam Ltd. (FSNL)

Vigilance Department of FSNL had taken several initiatives during the year with specific focus on preventive vigilance and systematic improvement in the organisation, briefly mentioned below:-

- 4 nos. of complaints received, out of which 2 complaints were investigated and report submitted. Remaining 2 complaints are under investigation.
- 3 Structured meetings between CVO and MD were held during the period.
- Agreed list for the year 2015 was finalized.
- Annual Performance Appraisal for Executives has been made on line.
- Periodical preventive/surprise checks were carried out in different units of the company.
- Payments to vendors are made through RTGS/NEFT. Reimbursement of expenses to the employees are also made through RTGS/NEFT.
- Vigilance Awareness Week 2015 was observed with the theme of "Preventive Vigilance - a tool of Good Governance" from 26th October to 31st October 2015.

11.8 Hindustan Steelworks Construction Ltd. (HSCL)

- The Vigilance Department of HSCL is headed by CVO.
- Vigilance Awareness Week was celebrated from 26th October 2015 to 31st October 2015 on theme "Preventive vigilance - as a tool of Good Governance".
- Integrity Pact meeting with Independent External Monitor (IEM) is being done periodically. Till date, total 220 Integrity Pacts have been signed. No complaint has been received by IEM till date.
- ISO 9001: 2008 certificate has been received.
- In-house Training Programme on Vigilance Awareness & Project Management was organized by unit vigilance department under aegis of Bhilai Unit. Similar Workshop was organized at Guwahati for North-East Project Executives of the Company.

11.9 MECON Ltd.

The Vigilance Department of MECON Ltd. has taken a number of initiatives, briefly mentioned below :-

- Vigilance Awareness Week-2015 was observed at MECON Head Office, Ranchi and at various Regional/Site offices from 26th October to 31st October 2015.
- Till December 2015, MECON has signed Integrity Pact (IP) with 84 suppliers/ contractors (threshold value - Rs. 1 crore). To enhance coverage of IP, the threshold value has been revised w.e.f. 1.9.2015 for orders related to Town Administration and Inhouse Procurement. Presently, the threshold value for the purpose of IP is Rs.1.0 Crore for EPC Projects and Rs.25.0 Lakhs each for Town Administration and Inhouse Procurement. The Draft IP forms NIT document which is uploaded on MECON Website in downloadable form and all bidders are required to submit signed copy of IP along with their bids. IEM (Independent External Monitor) has been functional in MECON. So far no representation/ complaints/ disputes have been received in the matters of contracts and tenders under IP.
- MECON Vigilance follows a well-established Quality Management System ISO 9001:2008 and has its own Vigilance Quality Manual.
- All tenders irrespective of value are uploaded on MECON Website along with the tender documents, drawings and data, technical specification, etc. in downloadable form for greater transparency, barring some small emergency procurements.

Pledge Ceremony – Vigilance Awareness Week 2015 – Mecon, Ranchi

- All payments to vendors are made through electronic fund transfer (NEFT/RTGS mode) except some small bills to local vendors. Payments towards Sales tax, Service tax, etc. are also made through RTGS/NEFT. Web enabled Bill Watch System has been introduced in MECON for uploading all invoices/bills in respect of new projects to enable vendors to track the status of their bills.

11.10 KIOCL Ltd.

Integrity Pact Programme: Integrity Pact Programme was introduced in KIOCL from 01-01-2008. During 2015, 43 contracts have been issued by incorporating IP clause.

ISO 9001-2008: ISO-9001:2008 Certificate of Vigilance Department has been re-validated and is valid till 10.02.2016.

Inspections: Inspections are being carried out regularly to ensure adherence to norms and eliminate deviations. During 2015, 2 CTE inspections, 31 surprise checks, 365 general inspections and 42 scrutinies of files are carried out.

E-governance: Disposal of scrap/ surplus items is being done through e-auction, since September 2004. E-Procurement by reverse auction commenced from Sep-2010. The threshold value for e-procurement is fixed at Rs.5 lakhs and above. Payments above the threshold value i.e., Rupees one lakhs are being made through electronic mode. During 2015, 96.23% of contracts by value above the threshold are concluded under r-reverse auction. During 2015 99.5% of payments above the threshold are made through e-payment.

Training: During 2015, Vigilance Department conducted 8 training programmes at two different locations, covering 363 employees.

11.11 EIL, BSLC & OMDC

These companies have their Vigilance Department headed by the Chief Vigilance Officer (CVO) of RINL, and assisted by one Vigilance Officer and PSO to CVO in Head office, Kolkata. In addition two Vigilance Officers (additional charge) are appointed for both OMDC mines, Thakurani and BSLC mines, Birmitrapur. The functions of Vigilance department include both preventive and punitive actions for all the mines of the company and for the Registered Office at Kolkata. Company's Vigilance department is continuing its efforts for systematic improvement to bring more and more transparency in working and conducted various training programme interactive sessions for creating Vigilance Awareness among the employees. The company observes "Vigilance Awareness Week" every year.

System improvement has been achieved/improved in the following areas:-

- Codification of all service rules and their implementation with the Board Approval.
- Disbursement of all payments through electronic medium.
- Adoption of Whistle Blower Policy.
- Adoption of Complaint Handling Policy.
- Initiative for the installation of surveillance system at Company mines.
- MIS system has been modified at Head Office for collecting information on production, sales, fund position etc. on daily basis.
- Sale of material through e-Auction.
- Implementation of ISO 9001:2008 Certification at Vigilance Management of entire set of activities for BGC, Vigilance Department.
- Installation of Weigh-bridges at all the vital exit points and such weigh-bridges to be connected with computer in order to ensure automatic recording of minerals received at the various plots/ Stockyards so the data's are reconciled on day to day basis. It is being implemented in phased manner.

CHAPTER-XII

GRIEVANCE REDRESSAL MECHANISM

12.1 Centralised Public Grievances Redressal and Monitoring System

Centralised Public Grievance Redressal and Monitoring System (CPGRAMS) has been implemented for facilitating public grievances in the Ministry and its PSUs. 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 citizenm (ii) Acknowledgement of acceptance of grievance by organisation, (iii) Assessment of grievance regarding follow up action, (iv) Forwarding and transfer, (v) Reminders and clarification, (vi) Disposal of the case.

The details of grievances dealt with in the CPGRAMS for the period from 01.04.2015 to 31.12.2015 are as under:

Outstanding as on 01.04.2015	Received during 01.04.2014 to 31.12.2015	Disposed of during 01.04.2015 to 31.12.2015	Pending as on 31.12.2015
167	1134	1145	156

A revised Sevottam Compliant Citizen's/Clients Charter has been finalized and implemented in the Ministry of Steel. Detailed status of adoption of 'Seven Step Model for Citizen Centric- Sevottam' in the Ministry and Steel PSUs is at Annexure XVI.

The position of the implementation of the judgment/orders of the Central Administrative Tribunal is given in Annexure-XII.

12.2 Steel Authority of India Ltd. (SAIL)

Effective internal grievances redressal machinery exists in SAIL plants and units, separately for executives and non-executives. The grievance procedure in SAIL has evolved after sustained deliberations and consent of employees, trade unions and associations.

The grievances in SAIL plants/units are dealt in 3 stages and employees are given an opportunity at every stage to raise grievances relating to wage irregularities, working conditions, transfers, leave, work assignments and welfare amenities etc. Such issues are effectively settled through the time-tested system of grievance management. However, 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.

Status of Public/Staff grievances for the period 1.4.2015 to 31.12.2015 is as under:

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	73	704	743	34
Staff Grievances	7	311	317	1

12.3 Rashtriya Ispat Nigam Ltd. (RINL)

In RINL, there is separate structured formal and informal Grievances Handling System for redressal of grievance of employees. In the formal Grievance Procedure for non-executives, a workers'

representative is present in the committee. Further, both executives and non-executives grievance handling systems have a fixed time frame to redress the grievances. A senior officer at the level of General Manager is designated as OSD (Public Grievances) to deal with the public grievances.

Status of Public/Staff grievances for the period from 01.04.2015 to 31.12.2015:

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	00	66	60	06
Staff Grievances	01	Nil	01	Nil

12.4 NMDC Ltd.

The grievance redressal machinery in NMDC is headed by an Executive Director in the Head Office and by Head of Projects in each of the four production Projects. The CVO has been nominated as the nodal officer for monitoring the grievance redressal machinery. 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.

Status of Public/Staff grievances for the period from 01.04.2015 to 31.12.2015:

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	1	36	25	12
Staff Grievances	Nil	25	25	Nil

12.5 MOIL Ltd.

MOIL has its own grievance redressal procedure for Executives as well as non-executive employees. The redressal of grievance machinery in MOIL consists of one Grievance Officer nominated for the purpose at each unit. The Grievance Officer nominated at Head Office co-ordinates with the Grievance Officers at the units for their effective performance.

The grievances are monitored at Head Office on the basis of assessment of data received from Unit Grievance Officer through the monthly report as well as through inspection by Head Office authorities.

Status of Public/Staff grievances for the period from 01.04.2015 to 31.12.2015:

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	Nil	Nil	Nil	Nil
Staff Grievances	Nil	845	845	Nil

12.6 MSTC Ltd.

Online registration of Public Grievance has been provided at MSTC's corporate portal www.mstcindia.co.in . Under this portal the Principal/Buyer can register their grievances and view the status with the help of a unique system generated code for the complaints. They can also view the progress of grievance registered online.


Further, a link on CPGRAMS (Central Public Grievance Redress & Monitoring System) is also provided in the home page of MSTC's corporate website which is monitored by nominated officials.

Grievance cells have also been constituted in different Regional and Branch offices so that grievance can be sorted out immediately and action be taken to solve the cases.

Grievances from the employees are also taken care by the HOD's and Region/Branch Managers. Some of the grievances are also received at the Central Grievance Cell by post. Moreover the HR Dept. attends to various formal/informal grievances received from the employees in day to day running of the office in consultation with the HOD's & Staff Unions, wherever necessary.

Status of Public/Staff grievances for the period from 01.04.2015 to 31.12.2015:

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	04	12	15	01
Staff Grievances	Nil	Nil	Nil	Nil

12.7 Ferro Scrap Nigam Ltd. (FSNL)

Status of Public/Staff grievances for the period from 01.04.2015 to 31.12.2015:

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	Nil	Nil	Nil	Nil
Staff Grievances	Nil	01	Nil	01

12.8 Hindustan Steelworks Construction Ltd. (HSCL)

Compliance with regard to Public/Staff Grievance Redressal was made during 2015-16 (till December,2015).

12.9 MECON Ltd.

Public Grievances

By and large MECON does not have dealings with the public in general. But any specific complaints relating to any kind of harassment is treated as a grievance. Complaints from customers are taken very seriously and attended to. There is no grievance pending from the contractors/customers or public in general. MECON has nominated Nodal Officer under Centralized Public Grievances Redressal and Monitoring System (CPGRAMS) for public grievances and the name of Nodal Officer is published in the website of Ministry of Personnel, Public Grievances.

Employees Grievances

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

12.10 KIOCL Ltd.

KIOCL has framed a well-defined Grievance Procedure evolved under the code of Discipline in March 1977 which covers all the employees, both Executives and Non-executives. The Grievances are easily identified and redressed at the grass root level itself. KIOCL has a well-structured and multilayered Public Grievances Redressal Mechanism including Dispute Resolution Mechanism. The Public Redressal setup in KIOCL has been introduced right from Corporate office at Bangalore to all production units and liaison offices. Public Grievance Officers are nominated at all locations. The Complainant can approach these officers in person or through written complaints or communicate through e-mail or contact on telephones. Regular customers meet is organized at regular intervals.

Status of Public/Staff grievances for the period from 01.04.2015 to 31.12.2015:

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	Nil	Nil	Nil	Nil
Staff Grievances	Nil	Nil	Nil	Nil

12.11 EIL, BSLC & OMDC

Grievance Redressal Mechanism is in place in these Companies at Unit Level and at Corporate Level. Nodal Officer has been notified for this purpose. The name & designation of the officer have been posted in the company website.

Type of Grievance	Grievances outstanding as on 01.04.2015	Received during April 2015 to December 2015	Disposed of during April 2015 to December 2015	No. of Grievances pending as on 31.12.2015
Public Grievances	Nil	09	09	Nil
Staff Grievances	Nil	Nil	Nil	Nil


CHAPTER-XIII

IMPLEMENTATION OF PROVISIONS OF PERSONS WITH DISABILITIES ACT, 1995

13.1 Ministry of Steel

The Ministry of Steel follows the Governments rules with regard to the implementation of provisions of the Disabilities Act, 1995. As on 05.02.2016, three persons (one visually handicapped (VH), one hearing handicapped (HH) and one orthopedically handicapped (OH) with disabilities are employed in the Ministry of Steel. The posts belonging to Secretariat Services are filled by Department of Personnel and Training.

13.2 Steel Authority of India Ltd. (SAIL)

- Provisions related to reservation for Persons with Disabilities in terms of Section 33 of The Persons with Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act, 1995 is followed at Plants/Units of SAIL.
- Employees in works division who become disabled while in service are redeployed in identified posts after providing them training. Proper medical facilities like Jaipur foot and wheel chair etc. are also provided to them.
- SAIL provides scholarship to the physically disabled children of its employees to support their education.
- SAIL extends free medical facility even to non-entitled major brother or sister of an employee, if they are disabled and dependent on the employee.
- Special relaxation is provided in allotment of quarters to disabled employees. Care is taken to allot ground floor to such employees.
- Shops, STD booths, Milk booths, Hawkers licenses etc. are allotted to disabled persons in plants of SAIL.
- 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.

13.3 Rashtriya Ispat Nigam Ltd. (RINL)

After the Act came into force on 7th February 1996, RINL-VSP has inducted 95 persons with various disabilities (including 7 persons selected on merit) upto 31st December, 2015.

The following actions have been taken up at RINL-Visakhapatnam Steel Plant for the convenience of the differently-abled persons at different offices at main administrative building / corporate office of RINL-VSP.

- Providing Ramp Way
- Auditory Signal in the lifts of the Administrative building
- Provision of a wheel-chair at the Reception Centre located at the entrance of the Main Administrative Building
- Provision of exclusive parking place next to main entrance

A policy decision was taken to give preference for allotment of ground floor quarters on "out-of-turn" basis to Persons with Disability and the relevant House Allotment Rules have been amended in November, 2015.

13.4 NMDC Ltd.

NMDC being a mining organization is governed by the provisions of the Mines Act and Rules and Regulations thereof and considering the safety factor it is not possible to employ PwDs in jobs involving working in the mines/plant. However, efforts are being made to induct PwDs in posts where field work is not involved. As on 31.12.2015, NMDC has 52 employees with disabilities in various posts.

13.5 MOIL Ltd.

MOIL Ltd. being Mining Company, major activities are carried out in underground Mines situated in remote places. The attempt is made to identify suitable posts so that persons with disabilities can be given employment in the Company. As on 31.12.2015 there are 24 persons with disability employed in MOIL.

13.6 MSTC Ltd.

As on 31.12.2015, eight persons with disabilities are employed in MSTC.

13.7 Ferro Scrap Nigam Ltd. (FSNL)

FSNL is a service organization, rendering its specialized services to the customer plants in scrap management & allied jobs. The activities of FSNL operations are carried out in open area in all the seasons. Further, heavy equipments such as Balling Cranes, Magnetic Separators, Dozers, Dumpers etc.are the main equipments used in carrying out operational activities. Thus, the atmosphere/working conditions of FSNL is not conducive for the persons with disabilities and hence engagement of disabled persons for carrying out jobs in field will not be safe for them.

However, in adherence of the Government directives, three posts each in Executive & Non-executive categories for persons with disabilities, one each for Visually Handicapped, Hearing Impaired and Orthopedically Handicapped under Group-A & Group-C categories in Ministerial Category have been identified. FSNL being a service organization, the recruitment in FSNL are made only on needbase, depending on availability of jobs from the customer plants.

13.8 Hindustan Steelworks Construction Ltd. (HSCL)

As on 31.12.2015, one person with disability is employed in HSCL Ltd.

13.9 MECON Ltd.

MECON Ltd. has implemented the provisions of "Persons with Disabilities Act, 1995". Total employee strength of MECON as on 31.12.2015 is 1497, out of which persons with disabilities in various posts are 10.

13.10 KIOCL Ltd.

As on 31.12.2015, thirteen employees belonging to Persons with Disabilities category in different groups are in position in KIOCL.

13.11 EIL, BSLC & OMDC

Two persons with disabilities are employed in these companies as on 31.12.2015.

CHAPTER-XIV

PROGRESSIVE USE OF HINDI

14.1 Introduction

The Ministry of Steel has made considerable progress in use of Hindi in official work during the year 2015-16 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 relating to the progressive use of Hindi in the Ministry is under administrative control of a Joint Secretary. The Hindi Section, under direct charge of Joint Director (Official Language), looks after the work relating to implementation of Official Language Policy and Hindi Translation work and it consists of one Assistant Director (OL), two Senior Hindi Translators, two Junior Hindi Translators, one P.S, one ASO and other supporting staff.

14.1.1 Official Language Implementation Committee

There is an Official Language Implementation Committee working under the Chairmanship of a Joint Secretary in the Ministry. This Committee reviews the progress made in use of Hindi in the Ministry and its Public Sector Undertakings. Meetings of the Committee are held regularly. Four such meetings have been held during 2015-16.

14.1.2 Hindi Salahkar Samiti

Hindi Salahkar Samiti works under the Chairmanship of Union Minister of Steel with the main objective to advise the Ministry with regards to progressive use of Hindi in its official work.

14.1.3 Implementation of Section 3(3) of the Official Languages Act, 1963

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

14.1.4 Hindi Divas/Hindi Fortnight

In order to encourage use of Hindi in official work amongst officers/employees of the Ministry an appeal was issued by the Hon'ble Minister of Steel on 14th September,2015 on the occasion of Hindi day Hindi Fortnight was organized in the Ministry from 1st September to 15 September, 2015. During this period, various Hindi competitions were organized to create an atmosphere conducive to use of Hindi in the official work and the prizes were also distributed to the winners of the various competitions.

14.1.5 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 to Steel is in operation comprising 1st, 2nd and 3rd prizes of Rs. 25000/-, Rs. 20000/- and Rs. 15000/- respectively. Objectives of the scheme is to encourage the writers to write original books in Hindi.

14.1.6 Official Language Inspections by the Officers of the Ministry

The Officers from the Ministry visited 45 various offices of the PSUs up to 6/2/16 under the administrative control of the Ministry to adjudge the progressive use of Official Language in those offices and remedial measures were suggested for compliance of Official Language Policy of the Union in these offices.

14.2 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 Hindi.

In the area of Hindi Computerisation, 52 jobs have been done through integrated system with the help of C&IT department (Software Group). Facility of online submission of forms for monthly Hindi incentive was fully streamlined.

Nagar Rajbhasha Karyanvayan Samiti (NARAKAS) website Sub committee meeting involving senior officers from other PSUs was organized in which issues regarding updation of the website were discussed & important decisions were taken.

SAIL's Hindi house journal 'Ispat Bhasha Bharti' bagged special award of 'Shiromani House Journal' at town level SAIL in the 40th town level meeting & prize distribution ceremony of NARAKAS.

'Ispat Bhasha Bharati' was also designed in the form of e-Patrika and made available on SAIL portal, as a result of which the magazine can now be viewed by all SAIL employees at plant/units.

Organized Hindi Pakhwada from 14 September to 28 September, 2015 during which various programmes like Intensive Contact & Departmental Training Programs, Hindi Gyan Competition *(for Non-Hindi speaking employees)*, Hindi Letter Writing Competition, Hindi Quiz, Hindi Dictation, Hindi Poem Recitation, Hindi Memoirs Writing Competition & Hindi Sangoshthi etc were organized.

Town Official Language Implementation Committee(PSU), Delhi which is functioning under the Chairmanship of SAIL, has been adjudged Third in Northern Region for commendable performance in implementing the Official Language Policy of the Union during the year 2014-15.

14.3 Rashtriya Ispat Nigam Ltd. (RINL)

At RINL-VSP, Official Language Policy and Specified Rules are followed as per Annual Programme issued by Department of Official Language, Ministry of Home Affairs, Government of India. As per the approved Road Map, training and various other activities have been undertaken throughout the year. Official Language Implementation Committee headed by CMD, all Functional Directors and selected GMs deliberate on Official Language Activities in the Organization every quarter and suggest measures for further improvement in implementation of Official Language Policy and Rules.

Initiatives taken towards progressive use of Hindi and recognitions received during the year 2015-16 (upto December,2015) are given below:

- 120 employees were trained under Hindi Prabodh / Praveen courses conducted by Hindi Teaching Scheme, Ministry of Home Affairs, Govt. of India.
- 297 employees were trained in Hindi Workshops conducted at HQ and Regional/Branch Sales Offices and also a special workshop was conducted for Women employees of RINL.
- 230 employees were trained to work on computers in Hindi through Unicode.
- Hindi Translation Training Courses were conducted for Level-1, Level-2 and Level-3 by expert faculty from Central Translation Bureau, Bangalore office. All the 44 participants were awarded certificate.
- 18 Regional Offices/Branch Sales Offices were inspected internally to ensure the implementation of Official Language.
- Quarterly Hindi Magazine 'Sugandh' is being published timely in order to meet the dual objective of implementing the Hindi usage and encourage the involvement of employees to write technical articles etc.
- RINL was awarded with 'Rajbhasha Sri Samman' and 'Vishesh Rajbhasha Keerti Samman' for effective implementation of Official Language and 'Rajbhasha Keerti Samman' and 'Rajbhasha Deepti Samman' for publication of 'Sugandh' House-magazine by Bharatiya Rajbhasha Vikas Sansthan, Dehradun


14.4 NMDC Ltd.

NMDC continued its efforts to successfully implement Official Language Policy of Govt. of India in its Headquarter, projects and units. In order to train Officers and employees to do their official work in Hindi, 04 Hindi Workshops at Headquarter and 22 Hindi workshops at Projects/units were conducted during the year. Training on Unicode Hindi Software was also imparted. Hindi Stenography training classes were conducted and 12 Stenographers passed Hindi Stenography training.

Meetings of Rajbhasha Representatives nominated in various departments at Head Office for increasing usage of Rajbhasha were conducted. To propagate use of Official Language, cash incentive schemes for noting and drafting in Hindi, working on computer in Hindi, dictation in Hindi were operated. Hindi Fortnight was organized during which various competitions were conducted and prizes were distributed. To encourage use of Hindi, a scheme named "Monthly Hindi Competition for Non-Hindi speaking personnel" has been started.

Meetings of Official Language Implementation Committees of Headquarter and various projects /units were conducted in every quarter. To monitor implementation of Official Language Policy and suggest ways and means to improve upon that, inspections of various projects and units were done and desk trainings were also conducted during such inspections. Various departments at Headquarter were also inspected.

A Seminar on Rajbhasha was organized under the aegis of Ministry of Steel for Officers of all the PSUs of the Ministry at New Delhi.

During the year Rajbhasha Technical Seminars were conducted. Hindi / bilingual magazines viz Sarjana, Takneeki Sopan, Takneeki Kitij, Baila Samachar, Bacheli Samachar, Doni Samachar, Nisp Patrika and NMDC Samachar, SHE News were published from Head Office and Projects.

Rajbhasha Trophy was awarded to NMDC Headquarter by Town Official Language Implementation Committee (Undertakings), Hyderabad-Secunderabad for the year 2014-15 in recognition of commendable work done in the field of implementation of Rajbhasha.

14.5 MOIL Ltd.

In all units of MOIL, majority of the works is being done in Hindi. All the computers are bilingual similar to Unicode "Kriti Dev" system as introduced in all newly purchase computers. As a result, the working in Hindi has increased.

MOIL organizes noting, drafting, poetry contests and Hindi articles on technical subjects, etc. competitions amongst its employees similarly to promote further, seminars are organized in which renowned poets and orators are invited.

Under the Ministry of Steel the Company had organized a seminar on "The role of Hindi in publicity of Science & Technology". In this seminar representatives of all public sectors had taken part.

Nagar Rajbhasha Karyanven Samiti of Nagpur has appreciated MOIL's in- house journal. The meetings of Nagar Rajbhasha Karyanven Samiti are being attended regularly by MOIL.

The employees of MOIL also take part in the competitions organized by the Nagar Rajbhasha Karyanven Samiti for various offices situated in Nagpur. This year Executives and Non Executives have taken part in the competitions and bagged First and Second Prizes.

14.6 MSTC Ltd.

Rajbhasha Trimas was inaugurated on 16 September 2015. During this period, Hindi competitions and Hindi workshops were organized in Head office and in regional and branch offices. Total 17 officers/ employees were awarded prizes for winning in Hindi competitions and for passing Hindi examinations. Total 06 employees were nominated for the Hindi examination conducted by Hindi Teaching Scheme, Official Language Deptt., Govt. of India for July - November 2015 session.

Re-certification of ISO 9001:2008 of Official Language Department was done.

Unicode was installed in the computers of head office and regional/ branch offices.

Documents coming under Section 3(3) of Official Language Act were translated in Hindi. Translations from English to Hindi and vice versa have been provided as and when required. Hindi version of Annual Report and MOU were also submitted. Official Language Act has been complied with.

14.7 Ferro Scrap Nigam Ltd. (FSNL)

FSNL ensures strict adherence of the directives received from the Government time to time with regard to implementation of Official Language Policy.

Hindi Noting/Drafting competitions etc. were conducted during the year and the winners of competitions were suitably awarded. In order to motivate the employees to do their day-to-day jobs in Hindi, the company ensures constant monitoring & encouragement of the employees.

A new trend was commenced by observing a month long "Hindi Mah", in place of fortnight(Hindi Pakhwada) at Corporate Office & all units of FSNL in the month of September 2015. During the Hindi Mah, the competitions like Hindi Essay writing, Hindi Gyan Pratiyogita, Hindi Debate competitions etc., were organized, which received an overwhelming response from the employees.

14.8 Hindustan Steelworks Construction Ltd. (HSCL)

HSCL has made various encouraging efforts in implementing the Official Language Policy and Programs of Department of Official Language, Government of India. The Govt.'s guidelines on the use of Rajbhasa are complied with. Besides holding meeting of the Official Language Implementation Committees at Corporate and Unit levels at regular intervals, HSCL made massive drive to motivate its officials at all levels for use of Hindi in official notes and drafts. Hindi workshops were organized in every quarter at unit level to educate and encourage the employees to use Hindi in their day-to-day official works.

HSCL is a member of the Town Official Implementation Committee and actively participates in all the programs. HSCL has been awarded with the "Rajbhasa CALTOLIC" award in August,2015.

Hindi fortnight was observed from 14th of September to 30th of September,2015 in which competitions such as Hindi essay writing, noting and drafting, quiz competitions, elocution etc. were held. On the concluding day of the fortnight, prizes were distributed to winners as well as to all the participants.

14.9 MECON Ltd.

MECON is effectively implementing the Official Language Policy of Govt. of India in its official work. There is an Official Language Implementation Committee under the Chairmanship of CMD. MECON is an important member of Town Official Language Committee, Ranchi and actively participates in all the programmes.

MECON has been awarded with 'Sarbotkrishta Rajbhasha Shree' & Certificate by the Mahanagar Samanyvay Samiti, Kolkata under the agies of Kendriya Sachiwalaya Hindi Parishad, New Delhi in the Rajbhasha conference, 2015 held in Kolkata on 25th June, 2015.

"Hindi Pakhwara" was observed in MECON at Head Office as well as in all its site offices from 14.09.2015 to 28.09.2015. On this occasion all employees took a pledge to increase use of Hindi in their day to day official work. During the "Hindi Pakhwara", competitions of various nature were also organized. These include Hindi Essay and Extempore Speech in Hindi. A special Hindi workshop and one Rajbhasha symposia on "Hindi Aur IT Anuprayog - Computer per Hindi me Kamkaj" were organised during the Pakhwara. Beside, Mecon also observed "Rashtrakavi Ram Dhari Singh 'Dinkar' Jayanti" during Hindi Pakhwara.

A Hindi House Magazine - "MECON BHARATI" is being published regularly. This magazine provides a platform for Employees for creative writing in Technical field in Hindi.


14.10 KIOCL Ltd.

KIOCL follows the directives issued from time to time by the Department of Official Language, Ministry of Home Affairs and Ministry of Steel, Government of India for the Progressive use of Official Language Hindi.

During the year, 04 Hindi workshops were conducted to impart practical training to employees for doing their official work in Hindi.

Hindi Fortnight was celebrated at all locations of KIOCL in September 2015.Hindi Programmes and several Hindi Competitions are held and prizes distributed to the winners.

The Company is Convener of Bangalore Town Official Language Implementation Committee (Undertakings) and conducts regular meetings and Joint Hindi Month programmes for all Central PSUs in Bangalore. The meetings were conducted on 31st July and 21st December, 2015.

The Company organized a Joint Hindi Month for Town Official Language Implementation Committee (Undertakings) members between 13th July to 13th August, 2015. 17 Competitions were conducted. Most of the PSUs Officers in Bangalore have participated in these Competitions.

In recognition of TOLIC activities for the Year 2014-15 in Implementation of Official Language Policy, TOLIC (Undertakings) Bengaluru was awarded Ist prize, Rajbhasha Kirti Puraskar (Shield) by Ministry of Home Affairs, Government of India, New Delhi, on 14th September 2015. On this occasion the award was conferred by his Excellency the President of Government of India Shri Pranab Mukherjee.

14.11 EIL, BSLC & OMDC

These companies have taken positive steps to enhance awareness and usage of Hindi among employees. Company had observed "Hindi Pakhwada" by way of organizing competitions such as essay writing , Hindi poems recitation and Anubandh in which the employees took active participation. Cash prizes and certificates and mementos were awarded to the winners of various events. Bilingual Boards and advertisements are being issued. "Rajbhasha Shikshan Board" is placed at Head Office to apprise the employees with new words every day. Rajbhasa Training classes were conducted under "Hindi Sikhsan Yojana" for learning Hindi and use of Hindi language for official use. Employees are putting signatures in attendance registers in Hindi. "Prabin, Pragya & Parangat" exams have been completed.

CHAPTER-XV

EMPOWERMENT OF WOMEN

15.1 Introduction

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 was constituted.

In compliance of the guidelines of the Supreme Court, Ministry of Steel has constituted a five-member Committee, headed by a Deputy Secretary level woman officer and having three women as members, to look into complaints made by women employees and to address them. The committee did not receive any complaint in 2015-16, and the same is a broad indicator of excellent environment for women work force in the Ministry.

Empowerment of Women

A Gender Budget Cell has been set up in the Ministry as per directions of the Ministry of Finance and the Ministry of Women and Child Development with the aim to initiate steps of implementation of the concept in this Ministry.

15.2 Steel Authority of India Ltd. (SAIL)

SAIL employs women employees in both Technical and Non-technical area. They are in managerial, technical (engineers) capacity, in medical, para-medical services and in academics. SAIL does not discriminate either at selection, recruitment and placement or at promotion levels and equal opportunities are provided for both the sexes at all levels.

An equal career growth opportunity to all employees irrespective of the gender is the hallmark of SAIL's Policy towards professional development of its employees. The growing number of women in senior positions is an indication of the fact that over the years, women would occupy some top positions in SAIL.

SAIL believes in providing equal opportunities & empowering the women workforce

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.

Benefits to Women Employees

Separate toilets have been provided at all locations where women employees are posted /engaged both in technical as well as non-technical areas. Washrooms, Canteens etc. for all employees in the Company's plants and units are available. Constant efforts are made for improving the hygiene conditions at workplace for all employees especially the women employees. The statutory compliance of the Company are also reflected in its Policies for women employees, such as, Maternity Leave, Child Care Leave benefits etc.

Prevention of Sexual Harassment

Complaint Committees to prevent sexual harassment of women at workplace have been constituted at SAIL Plants/Units in terms of The Sexual Harassment of Women at Work Place (Prevention, Prohibition & Redressal) Act, 2013 and composition of the committee has been uploaded on the existing Intranet/ Web portal of the respective Plants/Units.

Welfare of Women

SAIL has also taken a number of steps in various spheres for the larger benefit of the women in society. The activities range from, literacy programmes for girl child, awareness programmes on health, care, family planning, ante-natal services, organizing health camps, Informative programmes on AIDS Control. SAIL plants and units also have Mahila Samitis engaged in awareness initiatives on social issues as child labour/dowry, exploitation of women, support to economically weaker women towards being self-reliant through self-employment, education, involvement in awareness programmes etc.

15.3 Rashtriya Ispat Nigam Ltd. (RINL)

In RINL, Women employees constitute around 3% of its total workforce with around 6% being executives and around 1.4% being non executives. Women employees are working in diverse and challenging areas like Operations, Projects apart from traditional functions in HR, Finance, and health centres etc.

WIPS- VSP was awarded the 'Best Enterprise Award' (3rd Prize) in Maharatna & Navaratna category by SCOPE.

RINL-VSP facilitates the women workforce to be closely knit through the local cell of forum of Women in Public Sector (WIPS) formed in 1997.

The Cell has been associating in a number of activities for the development of women employees including Development programmes for women employees, programmes on Networking & social skills and various other technical and managerial skills including Gender sensitivity programmes for sensitizing its employees on issues relating to employment of women. It has also been associated with some social support activities including CSR activities in the rehabilitation colonies viz Tailoring & Beautician Courses, Hand Embroidery, Fabric Painting, Saree Rolling, Literacy Programmes etc for women residing in rehabilitation colonies of Visakhapatnam.

Some of the notable milestones during April-December 2015 are:

Training & Development: A record number of 666 women employees were nominated for various training programs including technical, managerial, health, seminars, and conferences in the country. Two women employees were nominated for attending training / seminar abroad. Training & development programmes conducted for women employees till Dec'15 includes: Personal Safety & Self Defence, Gender Sensitivity, Communication Skills, Leadership skills, Women Empowerment, Prevention of Diabetes & Lifestyle management. Training for women contract labour also organized on "Women empowerment".

Social Work : In association with WIPS-Southern Region conducted a social service camp at **Aalambana**' - (RINL's novel initiative of constructing a Rehabilitation centre for taking care of HIV & AIDS infected children at Prathipadu, in East Godavari district, AP).

The cell runs a crèche for the benefit of working women.

Sports & Games: Nearly 100 women employees participated in the two day annual sports meet organised exclusively for the women employees.

Communication: The Cell maintains an exclusive "Portal" on the company website wherein important achievements of women worldwide are shared for the information and inspiration of women employees. The cell also publishes "DISHA"- a newsletter every year.

Seminars: On the occasion of International Women's Day (8th March) and on WIPS Formation Day (9th August) sessions are conducted by eminent women achievers with a view to motivate the women employees. Programmes on Personal Safety and Prevention of Diabetes were also organised for women employees during the period.

Rewards & Recognition: WIPS- VSP was awarded the 'Best Enterprise Award' (3rd Prize) in Maharatna & Navaratna category in February 2015 by SCOPE. Two women employees were also awarded 'Significant Women Achievers' (3rd Prize) Award.

15.4 NMDC Ltd.

NMDC Limited employs 299 women employees which constitute about 5.3% of its total manpower of 5641 (as on 31.12.2015). The company provides equal opportunities for the sexes at all levels, be it selection, recruitment, placement or promotion. The number of women in senior positions is growing.

Facilities like separate wash rooms, rest rooms etc have been provided in the Head Office and Projects. NMDC has also been sponsoring women employees for training on awareness in healthcare, family planning etc. Recently NMDC has sent two women Officers on foreign training in Business Management. All statutory obligations of the Company are reflected in its policies for women employees.

As per the recommendations of the Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice in its 62nd report, WIPS cells have been constituted in all the Projects.

Under CSR Activities, NMDC has taken up various activities for Empowerment of local women. Some of them are:

- **Balika Shiksha Yojana** is a novel CSR initiative having a triple purpose of assisting girls from socio-economically disadvantage sections of society to pursue their education, contribute to


empowerment of women and also help in reducing the acute shortage of Medical & Paramedical Staff in Bastar region. As on date 164 students have been sponsored by NMDC for pursuing nursing courses.

The first batch of 19 students of GNM Course who availed the benefits of the scheme has recently passed in their exam. NMDC is taking steps to achieve convergence between the acquisition of knowledge and skill by the new nursing professionals and availing of employment opportunities in their local area. This will help in achieving the overall objective of women's empowerment.

- **NMDC Shiksha Sahayog Yojana** where scholarships are granted to the poor tribal and SC students Bastar region to continue academic pursuit beyond 8th class upto Graduation.

15.5 MOIL Ltd.

MOIL employees 767 women employees which constitute 12.10% of its total workforce of 6340 as on 31.12.2015.

In compliance of the directives of the Supreme Court guidelines relating to sexual harassment of women workers at work place were issued by Govt. of India, Ministry of Human Resources Development, a Complaint Committee comprising of three officials including a lady Doctor was constituted in the year 1999 & reconstituted in March' 2006. No case of any harassment has since been reported at any of the Mines of the Company or its Corporate Office. The directives have been widely circulated to bring awareness amongst the women workers.

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.

Every year 8th March is celebrated as International Women Day and various programmes are organized to mark the day. Company also grants Maternity Leave and Special Casual Leave for Family Planning.

As part of its CSR activities, Self Help Groups have been created at the mines which comprise women hailing from the remote villages. They are trained to make candles, washing powder, washing soaps, bamboo baskets, tailoring and various other vocational activities in order to make them self-reliant. This programme in MOIL has got very good response and a huge success.

15.6 MSTC Ltd.

MSTC is a Corporate Life Member of Forum of Women in Public Sector (WIPS). An employee of the Company has been elected as the President of the Eastern Chapter of WIPS and many more are members of the forum. Women employees of the Company were also encouraged to participate in events organized by WIPS.

Women employees were nominated for programmes on women empowerment, prevention and redressal of Sexual harassment of women at workplace, etc. Internal Complaints Committees (ICC) have been functioning as per the provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. Various activities like awareness programmes, presentations, employee counseling, regular meetings of the ICC, etc. were undertaken by the Committee during the year.

15.7 Ferro Scrap Nigam Ltd. (FSNL)

The Women employees of FSNL are given due importance in all activities, including recognition of their abilities in various competitions/areas. The representation of female employees in various committees, such as committee for prevention of Sexual harrassment etc., is always ensured.

15.8 Hindustan Steelworks Construction Ltd. (HSCL)

There are 3 women employees in the Company as on 31.12.2015. These women employees are scattered in different Units. Most of the female workers are posted at Bokaro and Bhilai. No organized body of women employees exists in the Company. However, Management of the Company ensures

that the interest and privilege of the women employees are protected. It is also ensured that they are not subjected to any sort of sexual harassment at the workplace.

15.9 MECON Ltd.

There is a Complaint Redressal Committee headed by a senior Lady Executive as its Chairperson to look into the grievance or complaints of women employees in MECON. MECON is following instruction/ guidelines issued by the Ministry/Govt. of India from time to time with regard to empowerment of women. Besides, different programmes for training to women employees are conducted by MECON's HRD Section from time to time.

15.10 KIOCL Ltd.

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 KIOCL.

There are 29 women employees on rolls of KIOCL as on 31.12.2015.

In compliance to the provisions/requirements under the sexual harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013, Internal complaints committees were constituted at Bangalore, Mangalore & 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 from Non-governmental organization (NGO) as third party & member.

A Women's Forum - Women in Public Sector (WIPS) 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 and women employees (Members) are being sent to attend Annual meets/ Regional meets of WIPS by the Company. On 8th March, 2015 International Women's Day was celebrated in a befitting manner.

15.11 EIL, BSLC & OMDC

These companies continue to accord due importance to gender equality. A Woman Grievance Cell is functioning in these companies to redress grievance of women employees. These companies are an equal opportunity employer and do not differentiate in terms of gender.

In these companies, women employees constitute about 15.20% of its total workforce of 1299 employees as on 31.12.2015. To ensure empowerment of women, "Gender Budgeting Cells" with women representatives have been constituted.


CHAPTER-XVI

PROMOTION OF STEEL USAGE

16.1 Promotion of Domestic Steel Consumption

Although steel has penetrated into the lives of the urban population in India, the same has not happened in the rural areas. Although with gradual urbanization and lifestyle changes, the rural India's steel intensity has risen over time, there is still a lot of potential for it to rise. Institute for Steel Development and Growth (INSDAG) has taken up a good number of activities/initiatives to enhance steel consumption and to create the awareness for increased usage of steel in rural areas.

16.2 Study for Assessment of Steel Demand in Rural India

In pursuance of the recommendations of the Parliamentary Standing Committee on demands for grants of the Ministry (PSC), the Ministry of Steel carried out a survey based study through Joint Plant Committee (JPC) to assess the demand for steel in rural India. The JPC submitted the final Report of this survey in July, 2011. The survey has come out with findings regarding average per capita consumption of finished steel in rural areas, trends of consumption of steel and future projections of steel in rural India. The survey collected the data for the purpose of analysis for the three years i.e. 2006-07, 2007-08 and 2008-09 and assessment of rural steel demand for the periods 2011-12, 2016-17 and 2019-20. The average per capita consumption of finished steel in rural India was assessed at 9.78 kg. during the period 2007 to 2009, which is estimated to increase to around 12 kg. in 2020 based on increased penetration of steel products. This growth would be powered mainly by construction activities, largely at the household level. In addition, the same will also be triggered by purchase of steel bearing items for professional use, furniture and vehicles. It is also expected that the demand for household items would decrease over the years. The major reason for the same is increasing substitution of steel by plastic for some of the major contributing items of that category. The survey has also made recommendations for enhancing the consumption of steel in rural India such as shift in type of housing structure, develop steel design for various applications, investment in community structures, small and medium steel products manufacturing, highlighting advantages of steel, increasing aesthetics of steel, improving logistics & supply chain for steel and addressing steel quality issues. The Ministry of Steel has formulated a roadmap for implementation of the recommendations made in the survey and is taking necessary action thereon.

16.3 Steps taken by SAIL to promote Usage of Steel

SAIL has the widest distribution network of branches and warehouses across the country comprising of 37 Branch Sales Offices, 10 active Customer Contact Offices, 25 Departmental Warehouses and 21 Consignment Agencies as on 01.01.2016. The huge network spread across the country helps in meeting requirements of a wide range of customers at their door step.

With the objective of increasing the reach of its products to common man, apart from a network of 1720 dealers at district level as on 01.01.2016, SAIL has also penetrated the hinterland at Block, Tehsil, and Taluka level by appointing 903 rural dealers.

Incentive schemes are being operated by the Company to encourage dealers to improve their performance as well as to promote SAIL steel. Award functions are held by Regions to felicitate high performing dealers.

Intensive efforts are being made to promote products from SAIL's new mills at ISP, DSP, BSL and RSP. SAIL has organized Workshops and Seminars for prospective customers where Cross Functional Teams engage with the potential customers about its' new mills which are being commissioned as part of its ongoing expansion and modernization. Technical presentations are made for launching products from these mills like plates from new plate mill at RSP, structurals from DSP and ISP, Seismic resistant TMT bars from BSP/DSP, CR from BSL etc.

Various promotional activities have been undertaken to promote SAIL steel. Some of the promotional activities undertaken in 2015-16 are as follows:

- Dealer meets, architect meets and mason meets are regularly held for promotion of SAIL steel. During this year, 66 such meets have been organized across the regions.
- Widespread Wall painting/Hoarding at various locations across the country. In the current year, Wall painting for app. 3 Lac Sq. Feet has been done and more than 30 hoardings have been put up across the country.
- Training programmes are undertaken for sales force of dealers to inculcate better understanding and qualitative advantages of our product.
- Advertisement are published in the local newspapers indicating the name of the active dealers.
- Calendars are given to Dealers for distributing to the end users highlighting advantages of our product. This leads to promotion of our products as well as the SAIL brand.

Product development has been a continuous endeavour at SAIL for meeting specific application requirement of our customers. Product development for new areas of application helps in promoting steel usage. 24 new products have been developed during January to Dec'15 for a wide variety of applications. Some of the products developed are given as under:

- ASTM A 387 Gr. 11 Cl. 2 Plates for boilers and pressure vessels.
- IS 2062 E 450 Thicker Plates (70 & 80 mm) with Z directional properties for offshore structures.
- DMR 249 BK Q&T Plates for Naval warship vessels.
- High Tensile Plates with Z Directional properties for Wind Mill Components.
- IS 2062 E 410C PM Plates for construction.
- IS 2062 E 350 BR (non micro alloy) grade Plates for auto components.

16.4 Rashtriya Ispat Nigam Ltd. (RINL)

RINL makes efforts on continuous basis for promotion of steel usage through development and supplying of new products and improving Distribution Network for wider coverage. Efforts are made for developing new products to meet specific applications, which in turn help in promoting steel usage. The requirements of customers of new products / grades / sizes of steel products are captured through various interactions with the customers. In case it is found technologically feasible, these products are developed and supplied to the customers. During the year 2015-16(till Dec'15), 3 new product profiles have been developed.

RINL has a Distribution Network consisting of 5 Regional Offices, 24 Branch Offices, 23 Stockyards and 6 Consignment Sales Agents. During the year Special thrust was given on enhancing customer base. RINL conducted demand survey for its new products and entered into MoUs with new actual users. Similarly, Retailer network has also been enhanced to 185 Retailers for supplying steel products in urban, semi-urban and rural areas.

With a view to popularizing usage of steel in rural areas, RINL/VSP introduced the Scheme of registration of District Level Dealers in Small Towns and Rural Dealers at Block and Panchayat Level locations. The process of registration of Rural Dealers is continuous and simple. Preference is given for the minorities and women entrepreneurs in the Rural Areas for the Rural Dealerships. RINL has 408 Rural Dealers/ District Level Dealers spread across the country (till Dec'15). RINL has started Marketing Contact Offices at Ranchi, Raipur, Trichy, Allahabad, Panaji, Jammu and Vijayawada.

International Marketing Office (IMO) of RINL at Sri Lanka started functioning during the year.

16.5 Hindustan Steelworks Construction Limited (HSCL)

Based on the MOU signed between HSCL and Institute for Steel Development & Growth (INSDAG), HSCL has taken up and successfully completed implementation of INSDAG building in Kolkata with steel intensive design. The building has already been formally inaugurated. HSCL has plans to take up more projects in association with INSDAG to ensure increase in steel usage in India. Besides this, implementation of the Handloom Marketing Complex at Janpath, Delhi has also been completed by HSCL with steel structures in place of traditional RCC structures.

CHAPTER-XVII

CORPORATE SOCIAL RESPONSIBILITY

17.1. Introduction

Corporate Social Responsibility (CSR) is a concept whereby organizations serve the interests of society by taking responsibility for the impact of their activities on customers, employees, shareholders, communities and the environment in all aspects of their operations. Harnessing of natural resources has a direct impact on the economy, environment and society at large. CSR is thus linked with the practice of Sustainable Development.

Government of India has enacted the Companies Act 2013 in August 2013. Section 135 of the Companies Act 2013 deals with the subject of Corporate Social Responsibility (CSR). It lays down the qualifying criteria based on net worth, turnover, and net profit for companies which are required to undertake CSR activities and, interalia, specifies the broad modalities of selection, implementation and monitoring of the CSR activities by the Boards of Directors of Companies. The activities which may be included by companies in their CSR policies are listed in Schedule VII of the Act. The provisions of Section 135 of the Act and Schedule VII of the Act apply to all companies, including CPSEs.

The Ministry of Corporate Affairs has formulated CSR Rules under the provisions of the Act and issued the same on 27.2.2014. The CSR Rules are applicable to all Companies, including CPSEs w.e.f. 1.4.2014. Further, Department of Public Enterprises has issued Guidelines on Corporate Social Responsibility and Sustainability in October,2014. All the CPSEs have been directed to scrupulously follow the above mentioned Act/Rules/Guidelines while allocating and spending funds under CSR.

Details of allocation and expenditure of funds under CSR are at Annexure XV.

17.2 Steel Authority of India Ltd. (SAIL)

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

Children having Mid Day Meal at BSL Kalyan Steel Vidyalaya of SAIL

SAIL CSR initiatives have always been undertaken in conformity to the prevalent statutes like revised DPE Guideline on CSR & Sustainability - 2013 and currently as per 'The Companies Act-2013'. SAIL's CSR projects are carried out in and around steel township, mines and far flung location across the country in the area of village development including development of Model Steel Villages (MSVs), Providing Medical and Health Care, Immunization, Ante and post natal care, Education, Access to water facilities, Construction of Roads, Road Side Drains & Street Lights, Environment, Women Empowerment, Assistance to people with disabilities, Sustainable Income Generation through Self Help Groups, Promotion of Sports, Art, Culture & Recreational Activities etc.

'Swachha Bharat Abhiyaan-Swachha Vidhyalaya Abhiyaan

SAIL has been actively participating in the "Swachh Bharat Abhiyan" initiated by the Hon'ble Prime Minister of India. A substantial budget of Rs.29 crore was earmarked towards the construction of toilets in schools under "Swachha Vidyalaya Campaign" during 2014-16. Under the campaign, construction of 672 toilets falling within the periphery of its Plants & Mines in the States of Chhattisgarh, W.Bengal, Odisha, Jharkhand, M.P. & Tamil Nadu; as allocated to SAIL by Ministry of HRD, had been undertaken and completed. Facilities like squatting units, urinals, washbasin and overhead water storage have been provided.

SAIL CSR Mission Projects

SAIL has initiated extensive Mission CSR projects expected to have major impact on Socio-Economic Development of targeted vulnerable groups in peripheral areas; that embark on thrust areas of education, sanitation, environment conservation, watershed development & skill development falling in line with Schedule VII of the Companies Act, 2013.

CSR activities:

Education: To develop the society through education, SAIL is running over 187 schools in the steel townships to provide modern education to more than 46,000 children and is providing assistance to over 509 schools with about 61,000 students. Seven Special Schools (Kalyan Vidyalaya) for BPL category students at integrated steel plant locations with facilities of free education, mid-day meals, uniform including shoes, text books, stationery items, school bag, water bottles and transportation in some cases are running under CSR. Besides running own schools and supporting schools in peripheral areas, SAIL in association with Akshya Patra Foundation is providing Mid-Day Meals to students of Govt. schools in and around Bhilai and Rourkela. Under this scheme, healthy & nutritious meal is being provided to around 62,000 students of around 576 Govt. schools every day.

Healthcare: SAIL's extensive & specialised Healthcare Infrastructure provided specialized and basic healthcare to 94.71 lakh people living in the vicinity of its plants and units during the period 2011-15. In order to deliver quality healthcare at the doorsteps of the needy, regular health camps in various villages on fixed days are being organized for the people living in the periphery of plants/units, mines & far-flung areas. During April-September, 2015 more than 430 Health Camps have been organized benefitting over 60,000 villagers.

7 exclusive Health centers at plants are providing free medical care and medicines to around 100,000 poor and needy beneficiaries every year. During April-September, 2015 more than 31,000 villagers have availed free healthcare at these Health Centers.

Connectivity & Water Facilities: Over 77.84 lakh people across 435 villages have been connected to mainstream by SAIL since its inception by constructing and repairing of roads. Over 7907 water sources have been installed during last four years thereby enabling easy access to drinking water to over 45.96 lakh people living in far-flung areas.

Disaster Relief: SAIL, as a responsible corporate citizen, supported the rehabilitation initiatives for the people affected by National & Natural Calamities, the recent being flood ravaged Jammu & Kashmir, Phylin cyclone in Odisha, Flash Floods in Uttarakhand, etc.

Sustainable Income Generation: Vocational and specialised skill development training targeted towards sustainable income generation has been provided to village youths and women folks of peripheral villages in areas such as Nursing, Physiotherapy, LMV Driving, Computers, Mobile repairing, Welder, Fitter & Electrician Training Improved agriculture, Mushroom cultivation, Goatery, Poultry, Fishery,

Piggery, Achar/Pappad/Agarbati making, Screen printing, Handicrafts, Sericulture, Yarn Weaving, Tailoring, Sewing & Embroidery, Smokeless Chullah making etc.

17.3 Rashtriya Ispat Nigam Ltd. (RINL)

RINL is committed in undertaking the responsibility and discharging its duty towards improving the quality of life of the community. RINL has formulated its CSR & Sustainability Policy in line with Companies Act,2013. CSR guidelines & DPE guidelines which specify the objectives, scope, sphere of activities & procedures for undertaking CSR activities. CSR initiatives are taken up as per CSR policy which is approved by RINL Board.

The focus areas for CSR are mainly those specified under Schedule VII of Companies Act,2013 include: Education, Healthcare, Skill Enhancement, Environmental care, Sanitation, Swachh Bharat ,etc.

CSR activities are carried out with the partnership of various NGOs and Govt. Organizations like State Govt., Municipal Corporation, CPWD, etc. The majority of the activities have been taken up in Rehabilitation colonies and peripheral villages. Welfare activities in the areas populated by Tribal / SCs/ STs / Weaker Sections of the Society, have been taken up towards education, health and community development etc. RINL- CSR activities are also extended to other States depending on the requirement.

Major CSR activities taken up (till Dec'15) under different focus areas are shown below:

Education

- Organized Adult Literacy Programs in 25 centers of 10 peripheral villages of VSP covering 625 adults.
- Extending free education to children of BPL families of surrounding villages of Plant and Mines through various schools in the VSP Township.
- Free education is being provided to differently abled children through Arunodaya Special School.

Health Care:

- Organized 151 nos Eye Camps using 'Netrajyothi' Mobile Eye care Van through Visakha Eye Hospital - benefitting 113291 patients and 1322 surgeries were done at free of cost.
- Performed 34 nos. free cataract operations for BPL families of peripheral villages. at company hospital.

Vocational Training Programme - Project Saksham of RINL

- Supplied drinking water to Rehabilitation colonies/ surrounding villages of VSP, reaching about 13,000 beneficiaries per day, for a period of 4 months during summer.
- *"Aalambana"*, A Rehabilitation Centre constructed for HIV/AIDS affected children and supply of Medicines for a period of 1 year has also been taken up.
- Provided medical equipment to two local Government Hospitals.

Skill Enhancement

- 'Project Saksham' facilitated Vocational Training programmes at RH Colonies, covering 320 unemployed youth and women in Fabric painting, , LMV driving, tailoring, Beautician course, and beauty therapy etc.
- 'Project Kaushal' Provided training for 200 youth in Garment construction techniques and Industrial sewing machine operation under skill development program for youth belonging to SC in surrounding areas.

Sanitation:

- Installed 15nos. RO plants under *'Sujala Pathakam'* in various villages and provided big dumber bins under Swachh Visakha at various locations of Municipal Corporation ,Visakhapatnam.
- Handed over 86 toilet blocks to respective schools under "Swachh Vidyalaya Abhiyan',

17.4 NMDC Ltd.

The status of CSR programmes undertaken/initiated by the Company are as follows:

Education:

- During the current academic year i.e. 2015-16, 40 girls have been sponsored in GNM & B.Sc. nursing courses at Apollo Hospitals, Hyderabad under NMDC's special education scheme-Balika Shiksha Yojana. Till date 164 students have been sponsored by NMDC for pursuing nursing courses. The first batch of 19 students of GNM Course who availed the benefits of the scheme has recently passed in their exam and are undergoing internship in Apollo Hospitals.
- The Residential Public School started at Nagarnar in 2010 is running successfully with 444 no. of students.
- NMDC has constructed Astha Gurukul School and 1000 seater Auditorium attached in Dantewada. The School caters around 675 orphaned and violence effected children studying from Class I to Class VII. Hon'ble Union HRD Minister visited the Institution on 08.03.2015, followed by the Hon'ble Prime Minister of India, who visited the School during his visit to Dantewada on 09.05.2015.
- The Scholarship Scheme "NMDC Shiksha Sahayog Yojana" to motivate ST/SC students is in operation and during the year 2014-15, 18000 scholarships have been awarded this assistance for the cause of this education.
- Mid day meal programme covering 8000 rural school children in & around Donimalai Project is running successfully.

Skill Development:

- The ITI with Welder & Mason trades at Nagarnar with the intake of 28 students each year is functioning successfully.
- The ITI at Bhansi with 5 trades is running successfully with the intake of 76 no. of students each year.
- The Polytechnic College at Dantewada established in 2010 with two streams i.e. Electrical & Mechanical with an intake of 126 students is running successfully. The Chhattisgarh Govt. has allotted about 8 acres for the Polytechnic. Construction of permanent building & establishment of a full-fledged campus at an estimated expenditure of Rs.3194.80 lakh is completed. Construction of Hostel Blocks & residential quarters is in progress.


This is the only Polytechnic College in Chhattisgarh which is totally operated by a PSU without any contribution from the Govt. of Chhattisgarh.

- Launched Livelihood-linked skill development programs in Bamboo, Bell metal & Tumba art @ Rs.181.78 lakh to provide livelihood generation training to 460 unemployed tribal youth of Bastar District in Chhattisgarh.
- NMDC has launched another livelihood skill training program in installation, repairs & maintenance of hand pumps for 1260 unemployed youth of Bastar at a cost of Rs.149.80 lakh. During the first phase of program 180 trainees has successfully completed the training.

Healthcare:

- Free out-door & in-patient treatment facility was extended to 67619 & 6747 local tribals respectively during the year 2015-16 (Upto Jan).
- During 2015-16, 20227 tribal villagers have been treated at the doorsteps in 37 villages (Upto Jan).

Rural Development:

- Integrated development work in progress in 19 villages in Bailadila
- NMDC has partnered with State Govt. of Chhattisgarh for construction of Gaurav Path - 4 way lane at Dantewada.
- Construction of 30 Community Centres in 30 villages of Bastar District is in progress.
- Farmers Development Scheme to provide fencing to farmers lands, digging bore wells & installation of hand pumps in Bastar District @ Rs.1500.00 lakh is in progress

Drinking Water and Sanitation:

- NMDC has partnered with State Govt. of Chhattisgarh for providing Solar system based drinking water facility in (16+2) Ashrams @ Rs.273.60 lakh.
- Construction of 2087 toilet blocks under Swachh Vidyalay Campaign of mission Swachh Bharat in all the Schools in six Districts of Chhattisgarh State and Panna District of Madhya Pradesh State @ a total outlay of around Rs.26.21 crore has been taken up during the year.
- A cleanliness campaign in 16 villages around NMDC Projects in Bailadila region under Mission Swachh Bharat, with the objective of bringing behavioural changes with respect to cleanliness through sanitation and hygiene promotion campaigns, capacity development of local government stakeholders and civil society and introducing system of rewards & recognition for incentivizing cleanliness, as a way of life with an outlay of Rs.1.00 crore is being implemented over a period from 2014-15 to 2018-19.

17.5 MOIL Ltd.

Several schemes have been taken up and being implemented under CSR in the current Financial year which broadly includes:

Education & Skill Development:

- In the Education and skill development initiative Company is supporting five schools. Two Schools in District Balaghat of Madhya Pradesh and three Schools in Bhandara District of Maharashtra. Both the districts are notified backward districts of India. Schools are imparting quality education to children's who are residents of the villages of the surrounding areas and mostly come from poor families.

Drinking Water and Sanitation:

- For providing drinking water to villages in remote areas, MOIL has proposed to dig 35 Nos. bore wells.
- MOIL has constructed 99 toilet blocks under Swachh Vidyalaya Abhiyan.

Healthcare:

- Company has tied up with NGO Suraj Eye Institute, and under its Light to Lives program free cataract surgeries, Pediatric eye Surgeries etc are being performed on needy rural poor's.

Rural Development:

- Company has promoted MOIL Foundation, a Society registered under Society Registration Act, 1860 and entered in to a MoU with Maharashtra Institute of Technology Transfer for Rural Areas (MITRA), an Associate Organization of BAIF Development Research Foundation for Community Development Programme. The main areas of Community Development Programme are agriculture development, livestock Development (poultry development, goat development), women empowerment, quality of life programme etc., which will help in overall development of the area.

Toilet constructed by MOIL under Swachh Vidyalaya Abhiyan

The project will endeavor to develop resources at the village level for better quality of life. 21 villages have been identified in the vicinity of MOIL mines in the districts of Nagpur, Bhandara of Maharashtra and Balaghat of Madhya Pradesh for the Community Development Program.

Environment Protection:

- Company has taken up various infrastructural development works like construction of Village Roads, Community Halls, Renovation of schools, and support for plantations etc.

The Company has made a budget allocation of Rs. 1430.00 lakhs to be spent in 2015-16.

17.6 MSTC Ltd.

MSTC has successfully completed the construction of 50 toilets under Swachh Vidyalaya Abhiyan.

Further to above, the following areas have been identified under CSR:

- Infrastructure in Primary schools for underprivileged children.
- Camps for Medical Awareness and Well being for rural population.
- Installation of tube wells for Clean Drinking Water for the inhabitants of rural Areas.

17.7 Ferro Scrap Nigam Ltd. (FSNL)

Company spends in each financial year, at least 2.0% of the average net profits of the company made during the three immediately preceding financial years. The above is not be applicable if the Company does not meet the criteria as covered under sub-section (1) of Section 135 of the Companies Act, 2013 for three consecutive financial years. Any unspent/unutilized CSR fund of a particular year, is carried forward to the following year, i.e. the CSR budget is non-lapsable in nature. At least 75% of the CSR budget is earmarked for activities to be implemented in project mode, and maximum upto 20% is allocated for other activities. The CSR Committee (Board Level Committee) recommends to the Board, the amount of expenditure, which shall be spent on the CSR & Sustainability activities. The budgetary allocation is approved by the Board of Directors.

17.8 MECON Ltd.

MECON is engaged in rural/community development activities in the nearby surroundings since 60's. In the year 1976, a dedicated group was formed and named "Community Development Committee (CDC)" and were assigned to look after the activities of "Corporate Social Responsibility". Subsequently in the year 2010, "CSR Cell" was formed to coordinate the CSR activities of the organisation in association with other employees drawn from various sections as per requirement.

The major developmental activities carried out by MECON in the financial year 2015-16 are as follows:

Sanitation

- Construction of 53 toilets completed under Swachh Vidyalaya Abhiyan in schools in various districts of Jharkhand.

Drinking water projects in villages and backward areas

- Construction of Water supply system in Village-Bar Toli, Pancha, District-Ranchi
- Construction of borewells in MHRD Schools in Khunti, Hazaribagh & Lohardaga districts of Jharkhand.

Mobile Health services

- Organising free Health check-up camps in Naxal-hit villages & backward areas of Jharkhand and distribution of medicines. Around 4368 patients were covered in 53 medical camps.

Education

- Free education is being provided to the under-privileged poor children at 13 (thirteen) nos. Literacy Centres, which are running in the slum areas/backward areas in and around Ranchi (Jharkhand). No. of students in these centers is around 400.

Skill development for women & youth

- Free Stitching/Embroidery Training is being provided in 9 (nine) centres, which are running in slum/backward areas of Jharkhand. 95 students have been enrolled at these centres. Each centre is equipped with stitching machines and practice cloth/other accessories required for training have also been provided.
- Opening of 1 (one) new Stitching/Embroidery training centres in backward/rural areas of Jharkhand.

Medical Camp Organised by MECON at Village-Pancha, Bundu

- Running of Vocational Training Institute, Ranchi for providing Free Vocational Training to the under-privileged youths, who are not able to continue their higher studies. The institute is affiliated to National Institute of Open Schooling (NIOS), New Delhi.

  Presently, the institute offers five types of course viz. Radio & TV technician, Electrical technician, Welding technology, Computer Applications and Yoga.In the current session (2015), there are a total of seventeen (17) students in different trades.

Projects for Differently abled (Visually/Physically challenged Persons)

- Creation of Infrastructure (Construction of 26-bedded Hostel building-1st floor for Blinds) at St. Michael's School for the Blind, Ranchi.
- Creation of Infrastructure (Construction of Dormitory at 2nd floor for Blind Girls) at Braj Kishore Netraheen Balika Vidyalaya, Ranchi (under progress).
- Training to the Visually challenged Girls of Braj Kishore Netraheen Balika Vidyalaya, Ranchi for Call Centre Operation.

Projects for Old Age Home, Orphanage etc.

- Installation of Safe Drinking Water facilities at Old Age Home in Village-Nagri, District-Ranchi
- Construction of Toilet Block at Old Age Home in Village-Nagri, District-Ranchi (under progress).

Environmental Sustainability

- Cool Air Ventilation System at Jagarnath Temple, Puri.
- Solar Water Heating System in Ispat Hospital, Shyamali (under progress).

Other Activities/Miscellaneous Programs

- Creation of Infrastructure (Construction of Class rooms) at Pramatha Nath Madhya Vidyalaya, Ranchi
- Creation of Infrastructure (Construction of CSR Pavilion) for promotion of local Art & Culture; CSR Meet with Beneficiaries; Health Camps for Slum Dwellers and marketing facilities for handicrafts etc. produced by underprivileged sections of society
- Upgradation of Infrastructure (Construction of rooms) at Chinmaya Mission, Ranchi. (for development for facilitating training camps)
- Construction of Akhra and construction of roof-slab & finishing work of community building of Village-Pandu Toli, District-Ranchi (under progress).

17.9 KIOCL Ltd.

KIOCL Limited has earmarked Rs.96.50 Lakhs towards various CSR projects identified in pursuance to schedule VII of the Companies Act-2013. Some of the major activities undertaken under CSR are as follows:

Education:

- To promote education of around 800 students who are from poor and economically weaker section of the society, KIOCL has provided kitchen equipments worth Rs. 1 lakh to Janaseva Vidyakendra, Magadi Road, Bangalore.
- Scholarship to 20 meritorious students belonging to poor/BPL families identified in Govt High-Schools (Rs.5000/- per student)
- Construction of School Building for Dakshina Kannada Zilla Panchayat Lower Primary School, Tannerbavi, Mangalore
- Providing School Uniforms to Primary Students of Shri Rama Vidya Kendra, Kalladka, Dakshina Kannada


Drinking Water and Sanitation:

- KIOCL has taken up up-gradation/repair work of 11 dysfunctional toilets in 3 colleges in Sandur Taluk and Mangalore.
- To promote environment friendly toilets and Go-Green concept, KIOCL is providing Bio-Toilets in Bangalore and Mangalore for the usage of general public.
- To ensure sustainability of toilets constructed in schools under Swachh-Vidyalaya Abhiyan during previous years at Bangalore, Mangalore and Chickmagalur Districts, KIOCL has taken up the responsibility of maintenance of toilets for a period of three years.
- Provided drinking water facility through construction of water tank and provided pipeline to each houses built in resettlement colony of SC/STs who were displaced due to landslide in Mangalore.
- Awareness Program towards promoting usage of toilets in the school.
- To ensure clean and safe drinking water to pilgrimages in Puri Jagannath Temple, KIOCL is providing Pure Drinking Water facility with Reverse Osmosis.
- Providing Community Toilets in Kaliapani-Odisha.

Healthcare:

- Sponsor of Cataract Surgery to Poor/Economically weaker section of the Society through Sankara Eye Hospital Bangalore.
- Medical Assistance to BPL families.

Environment Protection & Sustainability:

- To Promote environment sustainability activities in rural areas, KIOCL is providing assistance for sapling of 1000 medicinal and revenue generating plants in Ragihalli village located at the outskirts of Bangalore.
- To minimize the impact of plastic bags on environment, KIOCL is providing 15 plastic waste collecting Bins in Ragihalli village.
- Solar powered Street Lights at Bajagoli, Mangalore.

17.10 EIL, OMDC & BSLC

OMDC focuses on CSR activities like health, education, and supply of drinking water and community development. For the year 2015-16 an amount of Rs 73.00 Lakh have been earmarked as CSR budget. OMDC allocates 2% of its net PAT as CSR budget. The CSR activities are carried out as per the DPE guidelines.

OMDC has completed construction of 8 nos. of toilets in different schools in and around mining lease-hold area in Keonjhar District under Swachch Vidyalaya Abhiyan.

CHAPTER-XVIII

TECHNICAL INSTITUTES UNDER THE MINISTRY OF STEEL

18.1 Introduction

Efforts are being made to constantly upgrade the technical skills of the workforce in the Steel Sector. The following institutes set up for the purpose deserve a mention for their worthwhile role and contribution:

18.2 Biju Patnaik National Steel Institute (BPNSI)

Based on the concept plan developed by a task force set up by the Ministry of Steel, a decision was taken to set up a National Steel Institute (NSI) at Puri, as a Training-cum-Service-cum-Research & Development Centre. The Institute is registered under the Societies Registration Act and started functioning from January 1, 2002. The Chairman of JPC is also the Chairman of BPNSI. BPNSI was established to help the domestic secondary steel industry to keep up with the rapid transformation which the global and Indian steel industries have been undergoing. The Cabinet had on February 20, 2004 approved the setting up of BPNSI at Puri as a full-fledged institute with capital funding from JPC. As an initiative towards capacity building for the envisaged production of 300 mtpa by 2025-26, a proposal is under consideration to upgrade BPNSI so that it will provide Academic Backbone to Iron and Steel Industry. The upgraded Institute would be a joint effort of the Union Government, Odisha State Government and the Industry. Odisha Government has already committed its contribution of Rs. 300 for Upgradation of BPNSI and provide the required land free of cost.

The Union Minister of Steel & Mines Shri Narendra Singh Tomar chairs a review meeting of the Expert Committee for upgradation of Biju Patnaik National Steel Institute to an Institute of National Importance on iron and steel.

18.3 National Institute of Secondary Steel Technology (NISST)

Need for human resource development and technology up-gradation in the secondary steel sector has been felt since long. In 1984, an Advisory Committee on Steel Rolling Industries set up by the Ministry of Steel also expressed the same need. Accordingly, National Institute of Secondary Steel Technology (NISST) was set up as a registered society on 18th August, 1987 under the Chairmanship of the then Development Commissioner for Iron & Steel and presently Joint Secretary, Ministry of Steel, with the following aims and objectives:

Aims and Objective of the NISST

- To provide trained technical manpower to the secondary steel sector through short-term and long-term courses and to update their knowledge base.


- To bring awareness about the State of Art Technology by holding Seminars, Workshops, and Symposia.
- To provide various industrial services and testing facilities.
- To extend consultancy services to industries in terms of solving technological problems, improving energy efficiency and reducing pollution levels.
- To conduct Research, Development & Design work in frontier areas for providing updated technology to this sector.
- To organize for documentation and information retrieval services to the industry.
- To provide a platform for interaction between industry and educational as well as research institutions.

The following areas of secondary steel sector are under the purview of the Institute:-

- Electric Arc and Induction Furnace
- Ladle Refining
- Rolling Mills (Hot & Cold)
- Direct Reduced Iron units

During the year 2015, the Institute achieved milestones and took initiatives as outlined below:

- Since inception, Job Oriented Certificate Course (JOCC) in Steelmaking and Rolling Technology run by NISST has provided more than 825 skill/ semi-skilled, supervisory level technical personnel to the secondary steel sector under skill development programme.
- Metallurgical and mechanical testing has been conducted for various Govt. agencies/ constructers/ service providers on regular basis.
- NISST is continuously providing technical support to the secondary steel sector to improve quality, yield, value addition and cost reduction to meet the challenges.
- Human Resource Development activities are being continuously undertaken to improve knowledge and skill of the employees of the secondary steel sector through modular courses/ in-house training programme.
- Organized Seminars, in-house trainings, Safety Awareness programmes and Workshops for the steel industry covering different parts of the country.
- NISST has been empanelled by Bureau of Energy Efficiency for conducting energy audits through its qualified and registered energy auditors. Energy audits of industries and buildings are being carried out with suggestive measure for energy conservation in the service to the nation.
- NISST has obtained accreditation of National Accreditation Board for Testing and Calibration Laboratories (NABL).
- NISST is taking up different assignments of the new UNDP project on "Up scaling Energy Efficient Product in Small Scale Steel Industry in India". NISST had conducted all meetings for obtaining Expression of Interests from willing rolling mills and also conducted various Capacity Building programs. It has got two CLAs in Nagpur and Guwahati and also undertaken Baseline and Post Implementation studies in various clusters.
- Training and Skill Development for land losers in NMDC Iron & Steel Plant (NISP), Nagarnar (Jagdalpur) Chhattisgarh is under active consideration for commencement. NISST is also an active partner for Sector Skill Council on Steel of NSDC.

- NISST also represents in various BIS standardization committees for formulation/modification of different standards related to steel products. NISST is also member of various Technical Committees of Ministry of Coal and Ministry of Steel.

- NISST is a leading Technical Member of North East Industrial and Investmernt Promotion Policy (NEIIPP) 2007 to consider Central Capital Investment Subsidy (CCIS) claims under DIPP.

NISST is working jointly with MSME for undertaking cluster development programme in Foundries, Steel Making and Rolling Technologies.

18.4 Institute for Steel Development & Growth (INSDAG)

INSDAG promoted by Ministry of Steel and Major Steel Producers of India, is operating relentlessly towards promotion of steel intensive structures in construction and infrastructural sectors. In pursuance to its mission statement INSDAG continues to disseminate steel related information / knowledge through seminars / workshops / publications etc to professionals and academics alike, organize award competitions, explore and innovate new and better avenues of steel usage and provide specialized knowledge based services.

- INSDAG has been recognized as prime mover in revision of Important Steel related National Codes and development of New Codes for upgradation of construction materials and methodology. Both Bureau of Indian Standard (BIS) and Indian Road Congress (IRC) recognized INSDAG's important role.

- Five Refresher Courses for students and professionals in steel design were conducted during the year. The Courses were conducted in association with IASTRUCT-E, INSTRUCT, IIT Hyderabad. The courses were organized mainly on Design of Steel Structures, Advanced Steel Design.

- INSDAG organised 30 numbers Training programmes to Bar Benders on Good Construction Practices with TMT bars at the various parts of country in association with Tata and SAIL covering 1230 masons and local engineers. The training aims to apprise the workmen about proper identification and quality of TMT bars, good construction and safety practices at site etc. This is a unique initiative of disseminating the knowledge of steel in the rural areas.

- Till date INSDAG has completed 7 nos. 21-days classroom and practical training programmes (residential) under Entrepreneurship cum Skill Development Programme (ESDP) schemes.

- INSDAG has developed a combined training module for Civil, Mechanical and Metallurgical Engineering students on Usages of Steel.

- INSDAG developed two single use steel intensive toilets (Rural and Urban variants) jointly with Tata Steel.

- Department of MSME, Government of West Bengal has assigned INSDAG to carry out "Feasibility Study" in five districts (Purba Medinipur, Paschim Medinipur, Malda, Darjeeling and Coochbehar) of West Bengal to find out the places where cluster development activities can take place. INSDAG identified about 30 places where cluster development is feasible.

CHAPTER-XIX

IMPLEMENTATION OF THE RIGHT TO INFORMATION ACT, 2005

19.1 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 objective of the Act is to promote openness, transparency and accountability in the administration and to provide good governance in the country. The Act also aims to protect the citizens' Right to Information to enable every citizen to secure access to the information from the public authorities. Correspondingly, dissemination of such information has become an obligation for all public authorities.

19.2 Implementation of the RTI Act in the Ministry of Steel

One Under Secretary level officer has been nominated as nodal officer for implementation of the RTI Act and its monitoring in the Ministry. The officers of the level of Under Secretary/Assistant Director (OL)/Assistant Industrial Advisor or equivalent level Officer of the Ministry of Steel are 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 are designated as Appellate Authority respectively. In addition, two Assistant Public Information Officers (APIOs) have also been nominated. The Ministry also monitors the progress/implementation of the RTI Act in its PSUs/Companies and other Organisations which are under its administrative control The manual of 17 items, detail of Appellate Authority/ Central Public Information Officers, Assistant Public Information Officers have been hosted on the Ministry's Web-site www.steel.gov.in. All the Public authorities under the administrative control of the Ministry of Steel have also hosted the manual of 17 items on their respective websites and have nominated their respective Public Information Officers/Assistant Public Information Officers and Appellate Authority. 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. During the year 2015-16 (up to 31st Dec 2015), the Ministry of Steel has received 141 offline RTI applications and 703 online RTI applications including appeals, which were duly disposed of within the prescribed time limit.

19.3 Steel Authority of India Ltd. (SAIL)

SAIL has appointed Public Information Officers / Asstt. Public Information Officers and Appellate Authorities and Transparency Officer under Section 5 & Section 19(1) of RTI Act in each Plant and Unit for speedy redressal of the queries received under the Act. The provisions under the Act are being complied with by all Plants and Units of SAIL.

An Exclusive RTI Portal for SAIL has been developed and link is available on SAIL Website. All the SAIL Plants/Units have listed 17 manuals, details of Authorities under the Act on the SAIL website www.sail.co.in. Quarterly Returns, Annual Returns on implementation of RTI Act 2005 are being submitted online through the CIC portal. Implementation of online request is introduced in SAIL from 1st May 2015.

During the period 1.4.2015 to 31.12.2015, a total of 2998 applications and 563 appeals were received under RTI Act, 2005 in the company, all of which were disposed of within the prescribed time limit. CIC has also taken up 05 cases and all these cases were disposed off in favour of SAIL by CIC.

19.4 Rashtriya Ispat Nigam Ltd. (RINL)

Information available in the 17 manuals of the RTI has been updated on company website in accordance with the requirement of section 4(1) (b) of Right to Information Act, 2005. Quarterly Returns, Annual returns on implementation of RTI Act, 2005 are being submitted regularly in the CIC portal.

A total of 457 requests have been received under Right to Information Act, by RINL during the period 1st April, 2015 to 31st December, 2015. Out of the same, 280 requests have been disposed of by furnishing information to the seekers and 177 requests are pending as on 31st December, 2015

19.5 NMDC Ltd.

NMDC has published on its website, www.nmdc.co.in information under Section 4(1)(b) of the RTI Act, 2005. 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. The number of RTI queries received and disposed during April,2015 to December, 2015:

Applications pending on 01.04.2015	Applications received during 01.04.2015 to 31.12.2015	Applications disposed off during 01.04.2015 to 31.12.2015	Applications pending as on 31.12.2015
15	584	503	96

19.6 MOIL Ltd.

MOIL has appointed PIOs at the Corporate Office and PIOs/APIOs have also been appointed in all its Mining Units. Executive Director (Tech.) has 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 the 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 been posted in Company's portal. MOIL has been submitting necessary information and returns to the prescribed authorities and updating the same regularly.

The details of applications pending, received and disposed off, during the period 01.04.2015 to 31.12.2015 are as under:

Applications pending as on 01.04.2015	Applications received during 01.04.2015 to 31.12.2015	Applications disposed off during 01.04.2015 to 31.12.2015	Applications pending as on 31.12.2015
Nil	31	31	Nil

19.7 MSTC Ltd.

MSTC has nominated an Appellate Authority, a CPIO and a Nodal officer in Head office. Every region/ branch has PIO and an APIO as well for effectively processing the RTI applications received at various locations of the Company. Provisions of Right to Information Act 2005 have been duly complied for processing the applications/requests received under RTI Act 2005. All the quarterly reports have been submitted on-line.

During April-December 2015, total 74 applications/requests have been received and out of that 60 applications/requests have been disposed and remaining 14 are under process. Online registration facility has been initiated on 14.9.2015 for which login id has been created for every PIO, DPIO and CPIO, FAA, Nodal officer. RTI web portal namely https://rtionline.gov.in has been provided by Department of Personnel and Training.

19.8 Ferro Scrap Nigam Ltd. (FSNL)

FSNL has appointed a Public Information Officer (PIO) and one Assistant Public Information Officer at Corporate Office and one APIO each at its 8 Units. MD, FSNL is the first appellate authority under the R.T.I Act, 2005. The company has complied the information under 17 different templates/manuals/ manuals for voluntary/suo-moto disclosure as required under Section 4(1) (b) of the Act and hosted the same on the company's website "fsnl.nic.in" and the information so published are being regularly updated. Quarterly reports are submitted to the CIC regularly.

The total number of RTI applications received during the period April 1, 2015 to December 31, 2015 was 30. Out of these, 26 applications have been disposed off.


19.9 Hindustan Steelworks Construction Ltd. (HSCL)

HSCL has nominated one (1) CPIO and sixteen (16) APIOs. CMD, HSCL is the first Appellate Authority under the Act for the Company.

From 1.4.2015 to 31.12.2015, the summary statement of application received and disposal action taken is as under:

- Total No. of RTI application received : 46
- Total No. of RTI application disposed off by CPIO : 42
- Total No. of 1st appeal received : 3
- Total No. of 1st appeal disposed off by Appellate Authority : 2

19.10 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 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 to them by the Public Information Officer within the stipulated time period. Jt. General Manager (Personnel) has been nominated as the Transparency Officer of MECON Limited. The status of applications received and processed during the year 2015-2016 (upto December,2015) under Right to Information Act, 2005 are given below:

Applications pending as on 01.04.2015	Applications received during 01.04.2015 to 31.12.2015	Applications disposed off during 01.04.2015 to 31.12.2015	Applications pending as on 31.12.2015
04	49	50	03

19.11 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 level have been appointed/ designated as Appellate Authority under the Act. The names of all the PIOs/APIOs and the Appellate Authority have also been hosted on KIOCL's website www.kioclltd.com. 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 and the same is being reviewed and updated at regular intervals.

Applications pending as on 01.04.2015	Applications received during 01.04.2015 to 31.12.2015	Applications disposed off during 01.04.2015 to 31.12.2015	Applications pending as on 31.12.2015
Nil	18	17	01

19.12 EIL, BSLC & OMDC

These companies are complying with the Right to Information Act -2005. For receipt and replying to the RTI queries, a PIO and APIO have been nominated.


CHAPTER-XX

DEVELOPMENT OF NORTH-EASTERN REGION

20.1 Introduction

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

20.2 Steel Authority of India Ltd. (SAIL)

The proposal for setting up a Steel processing Unit (SPU) at Guwahati, Assam was approved in principle by SAIL Board in April, 2008. The proposed facilities and product mix envisaged is TMT Bar Mill of 80,000 TPA. For the project, 31 Acres of land at Tilingaon in north Guwahati, Near IIT Guwahati has been allotted to SAIL for the project at a cost of Rs. 7.97 Crore.

Survey of land has been completed. Barbed wire fencing of boundary, gate and security room completed. The concessions and benefits sought from state Govt. is still awaited.

Meanwhile, a fresh study undertaken by SAIL in October 2015 has indicated that conversion arrangement for TMT through SPU route at Guwahati may be a commercially viable proposition. Accordingly, the modalities including terms and conditions for setting of the SPU at Guwahati is being explored.

20.3 Rashtriya Ispat Nigam Ltd. (RINL)

RINL Provides services to North Eastern Region directly through its Branch Sales Office (BSO) at Kolkata and the Consignment Sales Agents (CSAs) appointed at Guwahati and at Agartala to cater the demand of various customers in the Region. BSO-Kolkata has appointed 25 Rural Dealers across the North-Eastern States, as follows:

State	Assam	Meghalaya	Tripura	Sikkim	Manipur	Mizoram	Arunachal Pradesh
Dealers	7	4	3	1	2	4	4

In order to promote sales in the North Eastern Region, BSO Kolkata is extending incentive to Project Customers of the Region. RINL is also supplying steel products directly to Hydro-Electric, Road and Other Projects in the North Eastern Region through RINL's Stockyard at Kolkata and through the Retailers & rural dealers.

20.4 MSTC Ltd.

As such MSTC does not have any direct involvement with the North Eastern Region apart from the indirect involvement of selling scrap of Public Sector Units and Defence units, paramilitary forces situated in the North East such as Oil India Ltd., ONGC, BRPL, North Eastern Coalfields Ltd. etc. and Army units at Bengdubi, Hashimara, Jorhat etc. Generally, scrap of such units is purchased by local businessmen which indirectly benefits the region.

20.5 Hindustan Steelworks Construction Ltd. (HSCL)

The Company has proud privilege of participating in the Bharat Nirman Programme of Government of India in construction of rural roads in the North Eastern State of Tripura under PMGSY. HSCL has been working as a Project Implementation Unit there with the responsibility starting from preparation of Detailed Project Report (DPR) to the maintenance of the roads for five years after construction.

The work has been taken up by HSCL as a Project Implementation Unit in phases under Public Works Department of Govt. of Tripura for establishing new connectivity and up gradation of existing roads in rural areas with population densities ranging from 250 to 1000+. The work involves activities from soil


testing, survey and construction / up gradation including maintenance of the constructed roads for five years after handing over. HSCL is at present working in two Districts - Dhalai and North District. The summary of the projects under PMGSY in Tripura is as below:

Total value of work	:	Rs.935.93 crore
Total length	:	1073 Km.

The PMGSY work in two Districts, Dhalai and North District of Tripura, under five phases Phase IV, V, VI, VII, VIII and IX, is going on under strict supervision and adequate security for the working personnel. 165 links have already been opened to the public. The value of work is likely to go up further in phases.

Apart from Rural Roads under PMGSY, the Company has successfully completed and handed over 3 Nos. of 150 bedded District Hospitals at Udaipur, Kailashahar and Kulai. The 100 bedded Hospital at Teliamura is nearing completion in spite of encountering innumerable impediments. Trauma Care Centre and Staff Quarters at Kulai and Staff Quarters at Kailashahar are also in completion stage. The Polytechnic at Fulkumari, under PWD, has been completed and the Drainage work under Directorate of Urban Development is also progressing well.

North Eastern Region of the country has become one of the major areas of infrastructure development by HSCL.

The following major projects are also under implementation by HSCL in North Eastern States:

S. No.	Works
1.	Two nos. of Hospitals and two nos. of auditoriums in Mizoram
2.	Improvement, widening and strengthening of Weiloi-Rangblang road 40 Kms in Meghalaya
3.	Construction of godowns of FCI at Demapur, Nagaland
4.	Construction of battalion headquarters of ITBP at Tezpur and Itanagar
5.	Construction of Guwahati campus of TISS
6.	Construction of International Centre for Performing Arts and Culture at Shilong in Meghalaya under NLCPR
7.	Construction of 100 Blocks for Indoor Sports Hall under Rajiv Gandhi Khel Abhiyan (RGKA) at different States of North East (Rs. 80 Cr.)
8.	International Multi Sports Stadia at Tura and Ampati respectively under State Sports Council Meghalaya
9.	Construction of Infrastructure for National Disaster Response Force (NDRF) Bn-01 at Assam (Rs. 40 Cr.)
10.	Construction of Lawngtlai by pass road Phase -1 (Rs10 Cr.)

CHAPTER-XXI

INTERNATIONAL COOPERATION

Steel is a dynamic sector and needs regular upgradation of technology. For this purpose cooperation with countries which are significant in the areas of steel production / steel producing technologies / availability of raw materials and collaboration with foreign companies which have developed state of the art technologies is essential. With a view to fulfil these objectives, the Ministry of Steel participated in or hosted various international meetings, conferences, etc. The details of important meetings are given below:

- A delegation led by Hon'ble Premier Colin Barnett, MLA, Western Australia met Hon'ble Minister of Steel and Mines on 10.04.2015 to further develop the strong diplomatic and trade relationship and increased collaboration for better technology, particularly in the field of iron ore mining.
- On 14.05.2015, a meeting between a delegation led by H.E. Mr. Raymond T. N'Tungamulongo, Minister of Foreign Affairs of Democratic Republic of Congo and Hon'ble Minister of Steel and Mines was held to discuss cooperation and exchange of technical know-how in the field of exploration and mining for the benefit of the two countries.
- A delegation led by H.E. Mr. Asset Issekeshev, Minister of Investment and Development of the Republic of Kazakhstan met Hon'ble Minister of Steel and Mines on 15.06.2015 to discuss an agenda for economic negotiations between the two countries and collaboration through a mutually beneficial economic cooperation programme.
- Hon'ble Minister of Steel and Mines visited Australia from 01.09.2015 to 04.09.2015 to participate in 'Asia Pacific's International Mining Exhibition (AIMEX - 2015) at Sydney, Australia.

Hon'ble Minister of Steel and Mines welcomes Mr. Asset Issekeshev, Minister of Investment and Development of Republic of Kazakhstan

ANNEXURE - I

LIST OF SUBJECTS ALLOCATED TO THE MINISTRY OF STEEL AS PER GOVERNMENT OF INDIA (ALLOCATION OF BUSINESS) RULES, 1961

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 including ship breaking.

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:

   (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) Hindustan Steelworks Construction Limited (HSCL);

   (ix) Bharat Refractories Limited (BRL);

   (x) Metal Scrap Trade Corporation (MSTC);

   (xi) Ferro Scrap Nigam Limited; and

   (xii) Bird Group of Companies.

ANNEXURE-II

MINISTER IN CHARGE AND OFFICER IN THE MINISTRY OF STEEL

(down to Deputy Secretary level)
(As on 05.02.2016)

Minister of Steel	Shri Narendra Singh Tomar
Minister of State for Steel	Shri Vishnu Deo Sai
Secretary	Smt. Aruna Sundararajan
Additional Secretary & Financial Adviser	Smt. Bharathi S. Sihag
Joint Secretaries	Shri S. Abbasi Shri Sunil Barthwal Smt. Urvilla Khati Shri T. Srinivas
Economic Adviser	Shri Suraj Bhan
Chief Controller of Accounts	Shri Bhupal Nanda
Directors	Shri D.B.Singh Shri H.L. Meena Shri Anupam Prakash (On long term foreign training) Shri Mahabir Prasad Shri K.S. Samarendra Nath Shri Manvendra Goyal
Deputy Secretary	Shri N.K Wadhwa Shri Subhash Bhattacharya
Joint Director	Shri Shailesh Kumar Singh, JD(OL)


ANNEXURE - III

PRODUCTION OF ISP & OTHER PRODUCERS

S U M M A R Y

('000 tonnes)

S. No.	ITEM / PRODUCER	2011-12	2012-13	2013-14	2014-15	Apr-Dec 2015-16*
PRODUCTION						
I.	**CRUDE STEEL :**					
	ISP					
	Oxygen Route	30847	32999	35067	36610	28466
	E.A.F.Units	9773	10037	9174	9473	6611
	Other Producers					
	Oxygen Route	379	350	455	961	687
	E.A.F.Units (incl.Corex & MBF/EOF)	9356	9345	9419	13652	10223
	Induction Furnaces	23936	25685	27579	28283	21090
	TOTAL (Crude Steel)	**74291**	**78416**	**81694**	**88979**	**67077**
	% Share of Other Producers	44.8%	44.7%	45.3%	47.1%	46.7%
II.	**P I G I R O N (For Sale) :**					
	ISP	502	674	552	920	878
	Other Producers	4869	6196	7398	8774	6324
	TOTAL (Pig Iron)	**5371**	**6870**	**7950**	**9694**	**7202**
	% Share of Other Producers	90.7%	90.2%	93.1%	90.5%	87.8%
III.	**S P O N G E I R O N :**					
	Gas Based	5166	3940	2683	2354	1593
	Coal Based	19805	19067	20189	21889	14656
	TOTAL (Sponge Iron)	24971	23007	22872	24243	16249
	% Share by Process (Coal Based)	79.3%	82.9%	88.3%	90.3%	90.2%
IV.	**FINISHED STEEL FOR SALE**					
	(Alloy/Non-Alloy) :					
	ISP	39934	42466	45160	46820	34422
	Other Producers	44472	47156	50417	53862	39243
	Less IPT/Own Consumption	8708	7940	7902	8525	5954
	TOTAL (finished steel)	**75698**	**81682**	**87675**	**92157**	**67711**
	% Share of Other Producers	58.7%	57.7%	57.5%	58.4%	58.0%

Source: JPC, *prov

ANNEXURE - IV

PRODUCTION OF CRUDE/LIQUID STEEL (By Producers)

('000 tonnes)

	2011-12			2012-13			2013-14			2014-15			Apr-Dec 2015-16*		
PRODUCER	Working Capacity	Production	% Utilisation	Working Capacity	Production	% Utilisation	Working Capacity	Production	% Utilisation	Working Capacity	Production	% Utilisation	Working Capacity	Production	% Utilisation
PUBLIC SECTOR															
B S P	3925	4901	125%	3925	5008	128%	3925	5136	131%	3925	4807	122%	3925	3709	126
D S P	1802	1914	106%	1802	2034	113%	1802	2019	112%	1802	2063	114%	1802	1455	108
R S P	1900	2170	114%	1900	2209	116%	1900	2291	121%	4400	2792	63%	4400	2042	62
B S L	4360	3647	84%	4360	3757	86%	4360	3776	87%	4360	3831	88%	4360	2579	79
I S P	500	330	66%	500	135	27%	500	127	25%	2500	141	6%	2500	615	33
A S P	234	200	85%	234	131	56%	234	122	52%	234	104	44%	234	68	39
S S P	180	96	53%	180	73	41%	180	91	51%	180	125	69%	180	101	75
V I S L	118	91	77%	118	64	54%	118	13	11%	118	46	39%	118	34	38
TOTAL (SAIL) :	13019	13349	103%	13019	13411	103%	13019	13575	104%	17519	13909	79%	17519	10603	81
R I N L	2910	3128	107%	2910	3071	106%	2910	3202	110%	2910	3296	113%	6300	2741	58
TOTAL : (Public Sector)	15929	16477	103%	15929	16482	103%	15929	16777	105%	20429	17205	84%	23819	13344	75
(Public Sector)															
PRIVATE SECTOR															
Tata Steel Ltd	6800	7128	105%	9600	8130	85%	9600	9155	95%	9600	9331	97%	9600	7399	103
Essar Steel Ltd.	8540	4348	51%	8540	4163	49%	8540	3245	38%	8540	2854	33%	8540	2454	38
JSW Steel Ltd.	14600	9908	68%	14600	11230	77%	14600	12227	84%	14600	13136	90%	16600	9402	76
JSPL	2400	2759	115%	2400	3031	126%	2400	2836	118%	4000	3557	89%	4000	2478	83
Other E A F Units/ Corex-BOF/MBF-EOF	11580	9735	84%	12010	9695	81%	14697	9874	67%	15888	14613	92%	17388	10910	84
IF Units	31017	23936	77%	33945	25685	76%	36494	27579	76%	36794	28283	77%	36794	21090	76
TOTAL : (Private Sector)	74937	57814	77%	81095	61934	76%	86331	64916	75%	89422	71774	80%	92922	53733	77
GRAND TOTAL :	90866	74291	82%	97024	78416	81%	102260	81693	80%	109851	88979	81%	116741	67077	77

Source: JPC, *prov; **pro-rata, based on annual capacity data


ANNEXURE - V

PRODUCTION OF CRUDE/LIQUID STEEL
(By Route)

('000 tonnes)

CATEGORY	2011-12	2012-13	2013-14	2014-15	Apr-Dec 2015-16*
OXYGEN ROUTE					
B S P	4901	5008	5136	4807	3709
D S P	1914	2034	2019	2063	1455
R S P	2170	2209	2291	2792	2042
B S L	3647	3757	3776	3831	2579
I S P	330	135	127	141	615
S S P	96	73	91	125	101
V I S L	91	64	13	46	34
R I N L	3128	3071	3202	3296	2741
T S L	7128	8130	9155	9331	7399
JSW Steel Ltd.	7442	8518	9257	10178	7791
Other Oxygen Route	379	350	455	961	687
TOTAL OXYGEN ROUTE :	**31226**	**33349**	**35522**	**37571**	**29153**
ELECTRIC ROUTE					
ELECTRIC ARC FURNACE					
A S P	200	131	122	104	68
Essar Steel Ltd.	4348	4163	3245	2854	2454
JSW Ispat Ltd./JSW Steel Ltd.	2466	2711	2971	2958	1611
Jindal Steel & Power Ltd.	2759	3032	2836	3557	2478
Lloyds Steel Ltd.	620	601	566	658	584
Jindal Stainless Ltd.	752	1107	1111	1907	1431
Bhushan Steel Ltd.	-	-	1084	2180	1692
Bhushan Power & Steel Ltd.	-	-	1714	1213	1403
Other Electric Arc Furnace	7984	7637	4944	7694	5113
TOTAL ELECTRIC ARC FURNACE :	**19129**	**19382**	**18593**	**23125**	**16834**
ELECTRIC INDUCTION FURNACE	**23936**	**25685**	**27579**	**28283**	**21090**
TOTAL ELECTRIC ROUTE :	**43065**	**45067**	**46172**	**51408**	**37924**
GRAND TOTAL :	**74291**	**78416**	**81694**	**88979**	**67077**

Source: JPC, *prov

ANNEXURE - VI

PRODUCTION OF HOT METAL

('000 tonnes)

	PLANTS	2011-12	2012-13	2013-14	2014-15	Apr-Dec2015-16*
A.	**PUBLIC SECTOR**					
	BHILAI STEEL PLANT	5126	5202	5377	5072	3944
	DURGAPUR STEEL PLANT	2099	2241	2191	2297	1600
	ROURKELA STEEL PLANT	2309	2366	2538	3157	2304
	BOKARO STEEL LTD	4012	4124	4100	4253	2825
	IISCO STEEL PLANT	451	231	220	566	1037
	VISVESVARAYA I & S PLANT	118	94	21	68	49
	RASHTRIYA ISPAT NIGAM LTD.	3778	3814	3769	3780	2991
	SUB TOTAL (A) :	**17893**	**18072**	**18216**	**19193**	**14750**
B.	**PRIVATE SECTOR**					
	TATA STEEL LTD.	7746	8858	9898	10164	2991
	MINI BLAST FURNACE	19061	21764	24342	27055	24869
	SUB TOTAL (B) :	**26807**	**30622**	**34240**	**37219**	**27860**
	TOTAL (A+B) :	**44700**	**48694**	**52456**	**56412**	**42610**
	% SHARE OF PRIVATE SECTOR	**60.0%**	**62.9%**	**65.3%**	**66.0%**	**65.4%**

Source: JPC, *prov


ANNEXURE - VII

PRODUCTION OF PIG IRON (For Sale)

('000 tonnes)

	PLANTS	2011-12	2012-13	2013-14	2014-15	Apr-Dec2015-16*
A.	**PUBLIC SECTOR**					
	BHILAI STEEL PLANT	7	14	0	3	0
	DURGAPUR STEEL PLANT	7	3	38	54	35
	ROURKELA STEEL PLANT	9	0	87	143	111
	BOKARO STEEL PLANT	26	84	40	105	34
	IISCO STEEL PLANT	49	65	55	364	290
	VISVESVARAYA I & S PLANT	9	15	5	12	6
	RASHTRIYA ISPAT NIGAM LTD.	395	493	327	239	87
	SUB TOTAL (A) :	**502**	**674**	**552**	**920**	**563**
B.	**PRIVATE SECTOR**					
	OTHER BLAST FURNACE/ COREX UNIT	4869	6196	7398	8774	6 6 3 9
	SUB TOTAL (B) :	4869	6196	7398	8774	6639
	TOTAL (A+B) :	5371	6870	7950	9694	7202
	%AGE SHARE OF PRIVATE SECTOR	90.7%	90.2%	93.1%	90.5%	92.2%

Source: JPC, *prov

ANNEXURE - VIII

PRODUCTION FOR SALE OF FINISHED STEEL (Non-Alloy & Alloy Steel)

						('000 tonnes)
	PLANTS	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**Apr-Dec2015-16***
A.	**PUBLIC SECTOR**					
	BHILAI STEEL PLANT	3279	3614	3470	3321	2416
	DURGAPUR STEEL PLANT	621	612	620	573	371
	ROURKELA STEEL PLANT	2041	2111	2057	2110	1580
	BOKARO STEEL PLANT	3128	3274	3330	3207	1620
	IISCO STEEL PLANT	221	134	186	120	274
	ALLOY STEEL PLANT	46	40	9	11	8
	SALEM STEEL PLANT	298	270	375	359	297
	VISVESVARAYA I & S PLANT	58	47	25	26	19
	SAIL- CONVERSION AGENT	-	-	556	553	608
	RASHTRIYA ISPAT NIGAM LTD.	2831	2717	2811	2552	2033
	SUB TOTAL (A) :	**12523**	**12819**	**13439**	**12832**	**9226**
B.	**PRIVATE SECTOR**					
	TATA STEEL LTD	5456	6427	8756	8967	6993
	ISP-MAJORS	21955	23220	22965	25021	18203
	OTHERS	44472	47156	50417	53862	39243
	Less Own Consump.(Majors & Others)	**8708**	**7940**	**7902**	**8525**	**5954**
	SUB TOTAL (B) :	**63175**	**68863**	**74236**	**79325**	**58485**
	TOTAL PRODUCTION FOR SALE(A+B)	**75698**	**81682**	**87675**	**92157**	**67711**
	%age SHARE OF PRIVATE SECTOR	**83.5%**	**84.3%**	**84.7%**	**86.1%**	**86.4%**

Source: JPC, *prov

ANNEXURE - IX

CATEGORY-WISE PRODUCTION FOR SALE OF FINISHED STEEL

('000 tonnes)

	2011 - 12				2012 - 13				2013 - 14				2014 - 15			
CATEGORY	**Main Prods**	**Other Prods**	**IPT/OWN Consumption**	**TOTAL**	**Main Prods**	**Other Prods**	**IPT/OWN Consumption**	**TOTAL**	**Main Prods**	**Other Prods**	**IPT/OWN Consumption**	**TOTAL**	**Main Prods**	**Other Prods**	**IPT/OWN Consumption**	**TOTAL**
1. Non-Flat Products																
Bars & Rods	5579	22694	172	28101	5803	23128	137	28794	7399	22686	535	29550	7023	25398	170	32251
Structurals/Spl.Sec.	707	4233	1	4939	661	5271	0	5932	864	6032	0	6896	819	6688	11	7495
Rails&Rly.Materials	901	9		910	881	57		938	822	65		887	760	75	0	835
TOTAL (Non-flat prdct)	7187	26936	173	33950	7345	28456	137	35664	9085	28783	535	37333	8602	32160	181	40581
2. Flat Products																
Plates	2480	2203	17	4666	2426	1831	95	4162	2497	1481	82	3896	2603	2112	14	4700
H R Coils/Skelp/Strips	5433	14934	3917	16450	6678	16418	3706	19390	7686	17333	4213	20806	7567	17784	5146	20205
H R Sheets	217	320		537	195	391	31	555	197	724	2	919	192	945	0	1138
C R Coils/Sheets/Strips	1658	9416	4036	7038	1584	9564	3494	7654	1721	8945	2944	7722	1933	8624	3048	7509
GP/GC Sheets	659	5261	238	5682	710	5650	73	6287	739	6235	75	6899	738	6265	111	6892
Elec.Sheet	63	87		150	72	83		155	69	57		126	69	71	0	140
Tin Plates	12	241		253	8	293		301	7	337		344	0	354	0	354
T M B P	0	4		4	0	5		5	0	3		3	0	0	0	0
Tin Free Steel	0	15		15	0	16		16	0	12		12	0	0	0	0
Pipes (large dia)	77	1877		1954	75	1931		2006	63	1915		1978	56	2038	0	2094
TOTAL (Flat Products)	10599	34358	8208	36749	11748	36182	7399	40531	12979	37042	7316	42705	13158	38191	8318	43031
TOTAL (Fin. Non-Alloy)	17786	61294	8381	70699	19093	64638	7536	76195	22064	65825	7851	80038	21760	70352	8500	83613
TOTAL FIN. STEEL (Alloy / Stainless)	193	5132	326	4999	151	5738	404	5485	132	7557	52	7637	39	8530	25	8544
TOTAL FIN. STEEL (Non-Alloy + Alloy)	17979	66426	8707	75698	19244	70376	7940	81680	22196	73382	7903	87675	21799	78882	8525	92157

ANNEXURE - IX (Contd.)

CATEGORY-WISE PRODUCTION FOR SALE OF FINISHED STEEL

('000 tonnes)

Apr-Dec2015-16*				
CATEGORY	**Main Prods**	**Other Prods**	**IPT/OWN Consumption**	**TOTAL**
1. Non-Flat Products				
Bars & Rods	7992	16919	108	24803
Structurals/Spl.Sec.	1168	4547	0	5715
Rails&Rly.Materials	619	2	0	621
TOTAL (Non-flat prdct)	9779	21468	108	31139
2. Flat Products				
Plates	2692	306	55	2943
H R Coils/Skelp/Strips	14552	2965	3879	13638
H R Sheets	1184	34	0	1218
C R Coils/Sheets/Strips	3444	3666	1894	5216
GP/GC Sheets	2130	2772	0	4902
Elec.Sheet	50	42	0	92
Tin Plates	0	237	0	237
T M B P	0	0	0	0
Tin Free Steel	0	0	0	0
Pipes (large dia)	191	1377	0	1568
TOTAL (Flat Products)	24243	11399	5828	29814
TOTAL (Fin. Non-Alloy)	34022	32867	5936	60953
TOTAL FIN. STEEL (Alloy / Stainless)	401	6376	18	6759
TOTAL FIN. STEEL (Non-Alloy + Alloy)	34423	39243	5954	67712

Source: JPC, *prov


ANNEXURE - X

CATEGORY-WISE IMPORT OF IRON & STEEL

('000 tonnes)

Sl.No.	Category	2011-12	2012-13	2013-14	2014-15	Apr-Dec2015-16*
I	**Semi-finished Steel (Non-Alloy)**					
	Semis	514.4	517.5	43.2	331.3	287.75
	Re-rollable Scrap	213.1	243.9	208.1	329.2	331.61
		727.5	761.4	251.3	660.6	619.4
II	**Finished Steel(Non-Alloy)**					
	Bars & Rods	425.1	514.5	294.3	854.3	509.29
	Structurals	63.1	90.9	43.0	52.9	18.49
	Rly.Materials	12.1	18.8	4.4	15.5	8.84
	Plates	661.2	861.6	409.9	731.7	739.08
	HR Sheets	53.6	122.5	102.1	78.6	29.84
	HR Coils/Skelp/Strips	1812.9	1871.6	1104.3	2006.3	2608.21
	CR Coils/Sheets	1456.6	1568.6	1278.9	1713.5	1505.74
	GP/GC Sheets	368.0	432.7	368.1	444.1	402.94
	Elec.Sheets	275.7	386.7	346.5	417.9	244.58
	TMBP	1.3	0.9	0.8	1.4	2.83
	Tin Plates	119.7	142.7	160.5	197.1	117.5
	Tin Plates W/W	30.3	41.1	27.9	20.6	9.98
	Tin Free Steel	50.3	66.3	56.5	87.3	65.87
	Pipes	107.8	134.4	101.4	132.4	75.21
	TOTAL Fin. Steel (Non-Alloy)	**5437.7**	**6253.1**	**4298.6**	**6753.5**	**6338.4**
	TOTAL STEEL (Non-Alloy)	**6165.2**	**7014.5**	**4549.9**	**7414.1**	**6957.8**
	Alloy/Stainless Steel					
	Non-Flat Alloy	259.5	352.5	236.6	821.8	762.5
	Flat Alloy	1165.1	1319.1	914.6	1744.9	1286.94
	Semi-finished Alloy	15.0	31.1	7.1	35.8	32.16
	TOTAL FIN. STEEL (Alloy)	1424.6	1671.6	1151.2	2566.8	2049.44
	TOTAL STEEL (Alloy)	1439.6	1702.8	1158.3	2602.5	2081.6
	TOTAL FIN. STEEL (Alloy+Non-Alloy)	**6862.3**	**7924.7**	**5449.8**	**9320.3**	**8387.84**
	TOTAL Steel (Non-Alloy + Alloy)	**7604.8**	**8717.2**	**5708.2**	**10016.6**	**9039.4**
III	**Other Steel Items**					
	Fittings	544.7	340.0	298.0	419.4	299.66
	Misc.Steel Items	1789.3	2293.7	3402.9	2327.3	2054.35
	Steel Scrap	5719.8	7772.7	4926.7	5784.3	4693.31
IV	**Iron**					
	Pig Iron	8.3	20.6	34.2	23.4	18.17
	Sponge Iron	0.1	0.2	7.3	20.1	0.2
	H.B.Iron	302.6	0.1	0.0	0.0	0.78
V	**Ferro-Alloys**	142.4	179.6	140.5	242.2	169.34
	GRAND TOTAL :	**16111.9**	**19324.2**	**14517.8**	**18833.3**	**16275.2**

Source: JPC, *prov

ANNEXURE - XI

CATEGORY-WISE EXPORTS

('000 tonnes)

CATEGORY	2011-12	2012-13	2013-14	2014-15	Apr-Dec 2015-16*
SEMIS (Non-Alloy)	198.2	142.7	484.2	637.69	375.1
FINISHED STEEL (Non-alloy)					
Non-Flat					
Bars & Rods	225.1	413.1	585.1	392.37	251.2
Structurals	44.5	60.6	64.7	83.08	56.2
Railway Materials	41.8	2.7	1.2	2.76	1.7
Total Non-Flat	**311.4**	**476.4**	**651.0**	**478.21**	**309.04**
Flat					
Plates	374.0	246.3	154.9	559.34	229.0
H R Coils/Sheets	1277.3	1878.3	2130.2	1374.65	338.1
C R Sheets/Coils	295.3	411.9	560.6	584.69	451.2
GP/GC Sheets	1443.1	1543.8	1821.7	1629.31	984.8
Elec. Sheets	1.2	7.0	9.9	9.87	15.1
Tinplates	28.6	54.6	70.1	46.93	40.9
Tin Free Steel	2.1	1.2	0.5	0.27	0.4
Pipes	470.8	136.7	109.3	223.07	109.5
Total Flat	**3892.4**	**4279.7**	**4857.4**	**4428.13**	**2169.06**
Total Fin. Steel (Non-Alloy)	**4203.9**	**4756.1**	**5508.35**	**4906.34**	**2478.10**
Total Steel (Non-Alloy)	**4402.0**	**4898.8**	**5992.6**	**5544.03**	**2853.24**
Non-Flat Alloy	**237.2**	**215.8**	**227.9**	**336.14**	**117.7**
Flat Alloy	**146.6**	**396.2**	**249.1**	**353.26**	**314.7**
Total Finished Steel (Alloy)	**383.8**	**612.0**	**477.0**	**689.40**	**432.38**
Semi-Finished Alloy	3.3	1.5	2.0	1.92	2.4
Total Steel (Alloy)	**387.2**	**613.5**	**479.0**	**691.32**	**434.80**
Total Fin. Steel (Non-Alloy+Alloy)	**4587.7**	**5368.1**	**5985.3**	**5595.74**	**2910.48**
Total Steel (Non-Alloy + Alloy)	**4789.2**	**5512.3**	**6471.6**	**6235.35**	**3288.04**
PIG IRON	490.9	414.1	943.1	539.96	216.1
SPONGE IRON	53.7	58.1	74.0	97.97	75.7

Source: JPC, *prov

ANNEXURE - XII

POSITION OF IMPLEMENTATION OF THE JUDEGEMENTS / ORDERS OF THE CENTRAL ADMINISTRATIVE TRIBUNAL

There are no judgements/orders of the Central Administrative Tribunal pending for prompt implementation in respect of the Ministry of Steel and the Public Sector Undertakings under its administrative control during the period from April-December,2015.

ANNEXURE - XIII

COMPARATIVE PBT (PROFIT BEFORE TAX) OF STEEL PSUs

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15	2015-16* (Apr-Dec)
1	SAIL	5150.87	3240.66	3225.00	2358.91	(-)4857.81
2	RINL	1110.01	526.47	549.15	103.35	(-)1089.58
3	NMDC	10759.47	9465.12	9759.20	9767.84	3824.82
4	MOIL	606.63	636.78	769.33	650.57	225.24
5	MSTC	176.15	193.40	(-)107.37	131.47	36.99
6	FSNL	2.03	2.53	12.43	25.36	13.41
7	OMDC	8.28	26.25	16.74	25.84	19.95
8	EIL	2.22	1.96	0.24	(-)12.62	1.77
9	MECON	201.54	150.73	68.69	33.01	(-)144.13
10	KIOCL	115.39	32.34	61.40	31.26	(-)139.47
11	HSCL	(-) 28.08	(-) 19.81	(-)18.67	(-)8.10	(-)12.53
12	BSLC	(-)6.86	(-) 18.14	(-)18.77	(-)27.27	(-)8.66
	Total	**18097.65**	**14238.29**	**14317.37**	**13079.62**	**(-)2130.00**

*Provisional


ANNEXURE-XIII (A)

COMPARATIVE PAT (PROFIT AFTER TAX) OF STEEL PSUs

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15	2015-16* (Apr-Dec)
1	SAIL	3542.72	2170.35	2616.48	2092.68	(-)2906.33
2	RINL	751.46	352.83	366.45	62.38	(-)1017.75
3	NMDC	7265.39	6342.37	6420.08	6421.86	2475.40
4	MOIL	410.77	431.72	509.56	428.01	147.29
5	MSTC	118.39	130.73	(-)70.03	90.99	24.19
6	FSNL	1.37	1.96	8.42	17.10	8.85
7	OMDC	3.44	12.86	6.26	17.70	11.42
8	EIL	1.69	1.47	0.09	(-) 12.72	1.72
9	MECON	136.37	101.03	49.48	20.27	(-)144.13
10	KIOCL	94.30	31.05	39.93	30.82	(-)139.47
11	HSCL	(-)28.08	(-) 19.81	(-)18.67	(-)8.10	(-)12.53
12	BSLC	(-)6.86	(-) 18.14	(-)18.77	(-)27.27	(-)8.66
	Total	**12290.96**	**9538.42**	**9909.28**	**9133.72**	**(-) 1560.00**

*Provisional

ANNEXURE - XIV

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

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15	2015-16* (Apr-Dec)
1	SAIL	8072.72	8599.06	8187.82	7667.00	4128.00
2	RINL	1635.73	1775.24	1643.11	1428.96	890.15
3	NMDC	5669.62	6588.00	8952.00	6681.00	1885.00
4	MOIL	223.86	236.74	291.75	230.29	84.70
5	MSTC	97.50	83.22	81.41	84.70	52.47
6	FSNL	27.61	36.69	40.83	41.11	39.42
8	MECON	110.23	151.08	92.96	87.47	46.73
9	KIOCL	155.72	209.95	261.05	110.79	18.13
10	HSCL	0.39	0.32	44.87	44.75	39.08
11	BGC	6.71	2.58	10.28	5.85	8.12
	Total	**16000.09**	**17682.88**	**19606.08**	**16381.92**	**7191.80**

*Provisional


ANNEXURE-XIV (A)

CONTRIBUTION MADE TO THE STATE GOVERNMENTS BY THE STEEL PSUs

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15	2015-16* (Apr-Dec)
1	SAIL	2935.00	3524.25	3372.54	3443.00	2128.00
2	RINL	593.16	598.85	606.62	514.91	373.01
3	NMDC	1234.83	901.00	932.00	1262.00	760.00
4	MOIL	70.53	77.27	83.24	69.41	36.82
5	MSTC	30.70	28.28	45.86	68.63	52.50
6	FSNL	0.36	0.35	0.73	1.40	0.72
7	MECON	6.05	3.04	0.94	1.62	1.44
8	KIOCL	31.22	29.66	30.44	6.13	1.47
9	HSCL	1.93	2.21	26.67	38.87	17.51
10	BGC	6.25	4.38	4.38	7.22	7.72
	Total	**4910.03**	**5169.29**	**5103.42**	**5413.20**	**3379.19**

*Provisional

ANNEXURE-XV

BUDGET AND EXPENDITURE ON CSR BY STEEL PSUs

(Rs. in lakhs)

PSU	2011-12		2012-13		2013-14		2014-15		2015-16	
	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp	Budgeted	Exp * (Apr-Dec)
SAIL	6400.00	6125.00	4200.00	5329.00	4000.00	6206.00	7800.00	3504.00	9896.00	4241.00
RINL	1200.00	1062.22	750.00	1600.00	750.00	2031.00	1423.00	1404.00	1137.00	677.00
NMDC	8013.00	8671.00	14530.00	10110.00	17105.00	13142.00	25018.69	18865.00	29820.00	6865.00
MOIL	628.00	655.91	680.00	1056.00	863.00	1036.34	1419.00	1357.57	1375.00	538.00
KIOCL	230.00	119.00	283.00	79.00	93.00	227.00	110.00	101.00	96.50^	15.72
MSTC	150.00	166.00	355.00	193.28	260.00	483.00	120.00	120.00	150.00	94.74
FSNL	9.00	9.06	9.00	9.00	4.00	4.50	25.27	22.10	29.97	0.00
MECON	325.00	220.51	497.49	235.33	460.46	272.33	468.23	144.45	491.51	140.00
HSCL	0.00	7.51	0.00	24.02 #	0.00	0.00	0.00	10.21	0.00	0.00
BGC (OMDC/ /EIL)	38.00	26.00	17.00	48.00	64.00	92.27	99.60	33.50	73.00	42.57
Total	**16993.00**	**17062.21**	**21321.49**	**18683.63**	**23599.46**	**23494.44**	**36483.79**	**25561.83**	**43068.98**	**12614.03**

* Provisional

spent from the carried over fund of last year.

^Rs.9.00 lakhs carry forward unspent amount from previous year.

ANNEXURE-XVI

ADOPTION OF 'SEVEN STEP MODEL FOR CITIZEN CENTRIC-SEVOTTAM', AS PER RECOMMENDATION OF THE 2nd ADMINISTRATIVE REFORMS COMMISSION

The Second Administrative Reforms Commission in its 12th report "Citizens Centric Administration - the Heart of Governance" in paragraph 4.6.2 recommended for making organization transparent, accountable and citizens friendly through making citizens charter more effective and mandatory. The Department of Administrative Reforms and Public Grievances (AR & PG) has developed a model for benchmarking Excellence in Public Service Delivery (Sevottam). The model provides the framework to organizations to assess and improve the quality of service delivery for the citizens. It involves the identification of the services delivered to the citizens, quality of service, its objective, improvement of quality, by using innovative methods for developing business process more informative with the help of information technology.

The Ministry of Steel has brought out its 'Citizen Charter' and this is periodically updated in tune with the changing requirements and expectations from the stakeholders. The Charter is placed on the Ministry website www.steel.nic.in. The Public Sector Undertakings and Companies under the Ministry are in various stages of implementation of the respective Charters and the Seven Step Model. Brief progress in respect of various companies is described below:

Steel Authority of India Limited (SAIL)

Citizen Charter (Excellence in Public Service Delivery) has been prepared and its version 1.2 has been uploaded on the SAIL website. It broadly contains information under three parts. The first part describes Scope of the Charter and General Information about the Company. Second part contains Information on Objectives of the Charter, Management commitment and Expectations from the Citizens. The third part describes Citizen Service Delivery Process, Monitoring and Review of the Charter for making improvements in the Charter.

MOIL Ltd.

(i) The Citizen Charter has been formulated in MOIL as SEVOTTAM. MOIL have taken steps for the implementation of the Charter. The same has been uploaded in Company's website and circulated amongst HODs and Mines of the Company. The Company have also displayed the copy of the Citizen Charter at prominent places in the organization, where the citizens have been visiting.

(ii) The Company have organized training programme/workshop in Company's Training Centre for interaction, creating awareness and proper implementation of the Citizen Charter.

KIOCL Ltd.

The development of Sevottam Compliant Citizen's Charter has been put in place in Company's website: http://kioclltd.co.in. Company has provided a linkage in its website to the portal of Central Public Grievance Redressal Mechanism of the Department of Administrative Reforms and Public Grievances for lodging and Redressal of grievances.

EIL, BSLC & OMDC

These companies have already initiated the system for on-line receipt of grievances and settlement as per the Sevottam model. Seven Step Model of "Sevottam" has been provided in Bird Group of Companies' (BGC) website i.e. www.birdgroup.gov.in. for on line addressing of public grievances.

ANNEXURE-XVII

RECENT IMPORTANT AUDIT OBSERVATIONS

Sl. No.	Name of the Ministry/PSU	Summary of the audit observation	
10.	Ministry of Steel Steel Authority of India Limited	5.1	Steel Authority of India Limited (SAIL) had 23 Joint Venture Companies (JVCs) as on 31st March 2014 with total investment of Rs. 778.82 crore. Only seven were fully functional of which only three were generating profits. Four JVCs, one at Bhilai and other at Bokaro with Jaypee Cement Limited (JCL) which used slag, a by-product produced in SAIL's steel plant for making cement. It was noted that SAIL under the agreement was supplying slag to the JV at prices much below the market price, as a result of which SAIL lost Rs. 156.58 crore up to 2013-14.
11.	Ministry of Steel Steel Authority of India Limited	5.2	There are 33 Coke Oven Batteries (COBs) in the five integrated steel plants operated by SAIL. COBs convert coal into coke which is the primary fuel used in the Blast furnaces for production of hot metal. It was noticed that on account of delays in the repairs and maintenance of the COBs, their performance was far below the norms set by SAIL. There was a shortfall in production of coke by 3,320 MT during the period 2009-14. Similarly, there was shortfall in availability of Coke oven gas, which is generated as a by-product during carbonization of coal in COBs, resulting in production loss of 2,340 MT of saleable steel and additional procurement of furnace oil at a cost of Rs. 202.85 crore during 2009-13. It was also noticed that even where repair and renovation had been carried out, the performance of the COBs was below the guaranteed performance parameters.

Ministry of Steel
Government of India
www.steel.gov.in

Contad/Nutech