

## **YEAR AT A GLANCE**

The year 2000-01 saw the Indian steel industry attain an excellent growth rate of 9.60% as compared to 12.1% in 1999-2000, 1.9% in 1998-1999 and 2.8% in 1997-98.

### **Demand and availability of steel**

Total domestic demand for finished steel in 2000-01 was 26.53 million tonnes. The total availability of finished steel including imports but net of exports was 26.65 million tonnes.

### **Production of steel**

Total production of finished steel in 2000-01 was 29.27 million tonnes. India is the 10<sup>th</sup> largest steel producing country in the world. Main producers contributed 12.49 million tonnes (43%) and secondary producers 16.78 million tonnes (57%).

### **Exports of Iron and Steel**

Indian Iron and Steel sector continued to be one of the leading exporting sectors of the economy. The value of iron and steel exported grew by over Rs.1000 crore. During 2000-01, India exported 2.568 million tonnes of iron and steel valued at over Rs.4,672 crore, as against 2.36 million tonnes in 1999-2000 valued at Rs. 3609 crore.

## **STEEL AUTHORITY OF INDIA LIMITED (SAIL)**

### **Performance of SAIL**

The production of Saleable Steel in the four integrated and special steel plants of SAIL for 2000-2001 was 9.70 MT against 9.53 MT in 1999-2000. During the year 2001-2002 (upto September 2001) production of saleable steel was 4.56 MT against the target of 4.87 MT.

## **INDIAN IRON AND STEEL COMPANY (IISCO)**

Production of Saleable Steel in IISCO, a subsidiary of SAIL, in 2000-2001 was 0.277 MT (Burnpur works) as against 0.249 MT in 1999-2000. During 2001-2002 (upto September 2001) IISCO has produced 0.142 MT of Saleable Steel with 100% achievement of the target.

## Working results of SAIL

During the year 2000-2001 SAIL achieved a turnover of Rs.16232.63 crore. The post tax net loss has been reduced to Rs.729 crore as against previous year's post tax net loss of Rs. 1720 crore.

## RASHTRIYA ISPAT NIGAM LIMITED (RINL)

### Production Performance:

The production for the year 2000-01 and 2001-02 (April-September, 01) is given below:

Item	2000-01			2001-02	
	Target	Actual	%Fulfillment	Target MOU (Annual)	Actual (Apr.-Sept)
Hot Metal	3.12	3.17	101	3.120	1.59
Liquid Steel	2.53	2.91	104	2.730	1.41
Saleable Steel	2.217	2.510	113	2.411	1.31

Unit: Million tonnes

The production of value added items was 1.71 lakh tonnes in 2000-01 representing a growth of 20% over the corresponding period of previous year.

### Techno-economic Performance:

During 2000-01, VSP registered best annual performance in Average number of heats per day in LD Converters, Specific energy consumption, Specific refractory consumption and Labour productivity .

The Techno-economic performance during April-September 2001 in respect of many parameters has improved further compared to the previous year. The details of some of the important techno-economic parameters are given below:

Parameter	Unit	1999-2000	2000-01	2001-02 April-Sept
Blast Furnace Productivity (Working vol.)	Ton/cum/day	1.48	1.72	1.81
Coke Rate	Kgs/thm	543	531	530
Sp. Refractory Consumption	Kg/tonne of Liquid Steel	15.2	12.8	11.6
Specific Energy Consumption	Gcal/tls	7.51	7.10	6.82

## **Marketing**

During 2000-01, VSP improved its share in the domestic market despite the sluggishness in the domestic market. VSP registered a sales turnover of Rs.3436 crore during the year, which represents 16% growth over the previous year. During the year VSP's exports were Rs.314 crore. During April-September, 2001, VSP achieved a sales turnover of Rs.1802 crore of which the export realization was Rs.155 crore.

## **Financial Performance:**

There has been a significant improvement in the Operating Profits in the last two years. From a level of Rs.15 crore of Operating Profits in 1998-99, VSP registered an Operating Profit of Rs.252 crore in 1999-2000. During 2000-01, by achieving an Operating Profit of Rs.504 crore, VSP registered a growth of 100%.

During April-Sept., 2001 VSP registered an Operating Profit of Rs.275 crore and a Cash Profit of Rs.109 crore.

## **NATIONAL MINERAL DEVELOPMENT CORPORATION (NMDC)**

During the year 2000-01 NMDC produced 15.05 Million Tonnes of Iron Ore and 56955 Carats of Diamonds. In the year 2001-2002 (upto Sept.2001), NMDC produced 6.47 Million Tonnes of Iron Ore and 39037 carats of diamonds. For the year 2000-01 the Company paid a dividend of 25% on the equity capital amounting to Rs.36.41 crore, including tax on dividend which was the Eleventh year in succession for payment of dividend.

NMDC has scope to expand its capacity of iron ore production with marginal investment in the existing iron ore projects and also by opening new iron ore projects. NMDC has taken up construction of Bailadila-10/11A with a production capacity of 5 MT ROM per annum. NMDC is also planning to develop Kumaraswamy Mine with a capacity of 3 MT per annum in Karnataka to meet the expected increasing domestic demand and also as a replacement for the depleting Donimalai Iron Ore Mine.

## **MANGANESE ORE INDIA LIMITED (MOIL)**

MOIL achieved their highest ever turnover of Rs. 165.22 crore in 2000-2001, despite the slow-down in the steel sector, MOIL earned a net profit of Rs.20.04 crore during the same year. The Company has paid 20% dividend to the Government continuously for the last eight years and has paid 27% dividend for 2000-01.

## **TATA IRON AND STEEL COMPANY LTD (TISCO)**

Tata Steel, after completion of their four phases of modernisation at a cost of Rs. 7,000 crore approximately has achieved a production of 3.43 million tonnes of saleable steel and 3.57 million tonnes of crude steel in 2000-01, surpassing all previous records.

Higher volume, richer product-mix and considerable achievement in the areas of cost reduction and improvement initiatives have contributed to a 13% increase in turn over from Rs. 6891 crore in 1999-2000 to Rs. 7759 crore in 2000-2001 and a 31% increase in net profit from Rs. 423 crore in 1999-2000 to Rs. 533 crore in 2000-01.

## **NEW/ UP-COMING STEEL PLANTS**

With the commissioning of one more plant, the number of new/green field steel plants which have been fully commissioned, increases from 8 to 9 with a total capacity of approximately 5.75 million tonnes per annum. 3 additional projects have been partly commissioned involving a capacity of 2.2 million tonnes per annum.

## **ELECTRIC ARC FURNACE INDUSTRY**

Presently, there are 38 Electric Arc Furnace based steel plants working in the country with an aggregate capacity of 6.698 million tonnes per annum. Several other units are reportedly closed. Various reasons such as rising cost of inputs, increasing tariffs, shortage of power, resource crunch, recession in demand etc. are believed to be responsible for this, underscoring the forces of change sweeping the steel sector.

Production of Ingots/Concast Billets by EAF units, which are reporting their production to the office of the Development Commissioner for Iron & Steel, during 2000-01 was estimated at 4.83 million tonnes as compared to 4.63 million tonnes during 1999-2000.

## **INDUCTION FURNACE INDUSTRY**

During 2000-2001, it is estimated that 657 units were in operation. The total production of induction furnace units were estimated to be around 3.9 million tonnes against estimated production of 3.4 million tonnes in 1999-2000.

## **SPONGE IRON INDUSTRY**

India is the second largest producer of sponge iron in the world. The growth of sponge iron specifically during the last few years in terms of capacity and production has been substantial. The installed capacity of sponge iron

increased from 1.52 million tonnes per annum in 1990-91 to 6.616 million tonnes per annum in 2001-02. The production has increased from 0.9 million tonnes in 1990-91 to 5.44 million tonnes in 2000-01.

## **PIG IRON INDUSTRY**

Total production of pig iron in the country during 2000-01 was 3.39 million tonnes which was approximately 6.6% higher than the previous year's production of 3.18 million tonnes. The contribution of private/secondary sector units adopting mini blast furnace route in the overall production of pig iron in the country continued to increase during the year from 61% in 1999-2000 to 72% in 2000-2001. These units have also been significantly contributing to the availability of the special grade pig iron including low Sulphur and low Phosphorus varieties.

## **RESEARCH AND DEVELOPMENT**

Both public and private sector iron and steel plants continued their Research and Development activities to solve their plant specific problems and also to develop new processes and products. The thrust areas of the R & D projects undertaken are given below:

- Design and development of new technologies and production processes.
- Reduction in raw material and energy consumption.
- Development of Human Resources.
- Utilisation of waste materials.
- Environment management and pollution control.
- Development of new value added products.

In pursuance of the decision of the Government of India to supplement activities for Research & Development in the iron and steel sector, an Empowered Committee has been constituted. The Empowered Committee as on 31.01.2002 has approved 27 research projects from public/private sector steel plants, academic institutions and research laboratories. The total cost of these projects is Rs.181.53 crore. Out of this, Rs.90.76 crore will be spent from Steel Development Fund (SDF). As on 31.01.2002 Rs.58.88 crore has been disbursed.

## **Energy Conservation**

Iron and Steel Plants, both in Public and Private Sectors continued to give thrust on the reduction in the consumption of energy.

The overall specific energy consumption in SAIL (4 integrated steel plants) during 2000-01 has been 7.90 Gcal/tcs, which is less than previous year figure of 7.96 Gcal/tcs. Few important energy conservation schemes under implementation in the year 2001-02 are listed below :

Steel Authority of India Limited (SAIL)

### **Bhilai Steel Plant (BSP)**

- Coal injection in BF-6.
- Introduction of coke oven gas burner in the rotary kiln at RMP-I.
- Introduction of improved design of ladle heating stands in SMS-I.

### **Durgapur Steel Plant (DSP)**

- Modification of rotary hearth furnace # 4 in Wheel and Axle Plant.
- Computerisation of Merchant Mill reheating furnace.
- Computerisation of Section Mill reheating furnace.

### **Rourkela Steel Plant (RSP)**

- Introduction of slit burners in the sinter ignition hood at Sinter Plant-I.

### **Bokaro Steel Plant (BSL)**

- Coal injection in the Blast Furnace # 4.
- Development of process model for BF stove operation.

Tata Iron & Steel Company (TISCO) has also taken various measures for reduction of energy conservation, some of important measures are : -

- Additional LD gas recovery to the tune of 10,000 NM<sup>3</sup> /hr. by augmenting the distribution net work.
- Reducing coal consumption at power house No.4 boilers by increasing supply at coke oven gas through modification on the suction side of boosters and by installing a new booster.
- Improving vacuum in 20 MW and 25 MW. Turbo Generators at Power House No.4.

Rashtriya Ispat Nigam Ltd., Visakhapatnam Steel Plant has also taken several steps as follows to reduce the specific consumption of energy:

- Optimising mixed gas consumption in sinter machine furnaces.

At other private steel plants like Essar Steel Ltd., Usha Beltron Ltd., Sunflag Iron and Steel Company Ltd., Mukund Ltd., and Jindal Vijaynagar Steel Ltd., a good amount of development work has been going on for energy conservation.

## **Environment and Management Pollution Control**

The iron and steel plants have drawn up short term and long term action plans for expeditious achievement of pollution control norms, wherever these have not so far been achieved. Environment Management System (EMS) of SAIL has been linked to ISO 14001. Specific website with relevant information about ISO 14001 launched under the domain name < iso 14001 sail6sp. Com>. Six more units of SAIL are in the processing of achieving ISO 14001. Consequent upon the concerted efforts put in by SAIL for pollution control and environmental protection, the following improvements in environmental indices have been observed in the last 5 years.

- Reduction in particulate matter emission rate : 66%
- Reduction in water consumption : 47%
- Reduction in effluent discharge quantity : 35%
- Reduction in energy consumption : 6.7%
- Increase in % solid work utilisation : 13%

Bhilai Steel Plant (BSP) and Rourkela Steel Plant (RSP) have won Indo German Greentech Award for the year 1999-2000. RSP has also won Greentech Award for the year 2000-01.

Environment Management is given top most priority at Rashtriya Ispat Nigam Limited, Visakhapatnam Steel Plant (VSP). Ambient air parameters, stock emissions, effluent and noise levels are monitored regularly and are maintained as per norms prescribed by State Pollution Control Board. Environment Management System as per ISO 14001 standards has been implemented and the certificate was awarded to VSP on 23.05.01.

In the private sector, Tata Iron & Steel Company Ltd. (TISCO) is phasing out pollution prone top charge batteries 1 and 2 and have installed new chem. jet dust suppression system in sinter and sinter circuit. Other private sector companies like Mukund Ltd., Sunflag Iron & Steel Company Ltd., Essar Steel, Jindal Vijaynagar Steel Ltd. are among some of the companies making efforts to keep the pollution levels within the prescribed acceptable limits.

## **Management Information System**

A Local Area Network (LAN) of about 80 nodes is operational in the Ministry and is being extensively used for sharing of files/documents, collecting information/material on annual reports, parliament questions, performance of PSUs, Electronic Mail (E-mail) and Browsing facility on Internet has been provided to all officials/Desks/Sections in the Ministry.

## **WELFARE OF SCHEDULED CASTES/SCHEDULED TRIBES AND MINORITIES**

The Public Sector Undertakings under the administrative control of the Ministry of Steel continued their efforts for filling up the backlog vacancies in respect of Scheduled Castes Scheduled Tribes /other Backward Classes. The Public Sector Undertakings have also continued the process of identifying and implementing programmes aimed at the upliftment of these communities in the peripheral areas around their areas of operation.

## **IMPLEMENTATION OF OFFICIAL LANGUAGE POLICY**

The progressive use of Hindi in the Ministry , its attached office and Public Sector Undertakings has been widely encouraged. PSUs are given incentives by awarding Ispat Rajbhasha Shield (First Prize), Ispat Rajbhasha Trophy (Second Prize) and Ispat Rajbhasha Trophy ( Third Prize); a Rajbhasha Shield for the PSUs located in Region "C" and a special Ispat Rajbhasha Millennium Shield. Under an incentive Scheme, cash prizes of Rs. 15,000/- Rs.10,000/- and Rs. 7,500 are awarded to the writers of original books in Hindi on Steel and its allied subjects.

As per instructions issued by the Department of Official Language [Ministry of Home Affairs] Hindi Fortnight was organized from 01.01.2001 to 14.09.2001. The Honourable Steel Minister made an appeal on 14<sup>th</sup> September, 2001 to all the officers and staff of the Ministry, its attached office and PSUs to further increase the use of Hindi in their official work.