CHAPTER-IV
PUBLIC SECTOR

STEEL AUTHORITY OF INDIA LIMITED

General

Steel Authority of India Ltd. (SAIL) is a Company registered under the Indian Companies Act, 1956 and is an enterprise of the Government of India. It operates and manages five integrated steel plants at Bhilai (Chhatisgarh), Bokaro (Jharkhand), Durgapur (West Bengal), Rourkela (Orissa) and Burnpur (West Bengal) and a plant of the Indian Iron and Steel Co. Ltd., which is a wholly owned subsidiary of SAIL.

SAIL has also four special and alloy steels and ferro-alloys units at Durgapur (West Bengal), Salem (Tamil Nadu), Chandrapur (Maharashtra) and Bhadravati (Karnataka). The plant at Chandrapur belongs to Maharashtra Elektrosmelt Limited which is a subsidiary of SAIL. The IISCO-Ujjain Pipe and Foundry Company Ltd., a subsidiary of IISCO, which was manufacturing cast iron spun pipes at its works at Ujjain (Madhya Pradesh), is under liquidation. Besides, SAIL has seven central units viz. the Research and Development Centre for Iron and Steel (RDCIS), the Centre for Engineering and Technology (CET), the Management Training Institute (MTI) all located at Ranchi, Central Coal Supply Organisation located at Dhanbad, Raw Materials Division, Growth Division and Environment Management Division all located at Kolkata. SAIL Consultancy Division (SAILCON) functions from New Delhi. The marketing of products of SAIL plants is done through the Central Marketing Organisation (CMO), Kolkata which has a countrywide distribution network. As part of the business restructuring plan, a subsidiary company was incorporated under the name of Bhilai Oxygen Limited (BOL) on 9th February, 1999.

Finance

The authorised capital of SAIL is Rs.5000 crores. The paid-up capital of the Company as on 31st December, 2002 was Rs.4,130.40 crores of which 85.82% was held by the Government of India and the balance 14.18% by the financial institutions/GDR-holders/banks/employees/individuals etc.

Turnover and Profit

The Company recorded a sales turnover of Rs.15502 crores in 2001-02. The post-tax net loss for the year 2001-02 was Rs.1706.89 crores. As a result of the loss, the Company has not declared a dividend for the year ended 31st March, 2002.

The gross margin (profit before depreciation and interest) and net loss for the nine-months ended 31st December, 2002 was Rs.1334.40 crores and Rs.545.96 crores respectively. The company recorded a sales turnover of Rs.13097.43 crores during this period.

Due to fall in international prices, coupled with continued sluggishness in the economy, the price realisation in the domestic market during 2001-02 also declined. The Company has recorded a growth of about 5.7% in sales volume of mild steel.

The efforts in the cost control measures including revenue maximization continued and the company achieved a benefit of about Rs.450 crores during the year 2001-02. The cost control savings encompass all areas of operation like reduction in consumption of coking coal/other raw materials, improvement in yield and techno-economic parameters, reduction in energy consumption, lower consumption of stores and spares and control on administrative expenditure. Substantial savings have also been achieved in other areas like control on arisings, reduction in payment of demurrage/idle freight and savings through optimization of purchases.

In terms of provisions of Sick Industrial Companies (Special provisions) Act 1985, if the accumulated losses of an industrial company as at the end of any financial year have resulted in erosion of 50 per cent or more of its peak net worth during the immediately preceding 4 financial years, the company is required to report the fact of such erosion to the Board for Industrial and Financial Reconstruction (BIFR) within sixty days from the date of finalisation of duly audited accounts of the company. As there is erosion in net worth by over 50 per cent of peak net worth mainly on account of stress on prices of steel products, report to BIFR has been made on 18.11.2002.

However, during the current financial year 2002-03, the market is signalling an upward trend. There have been price increases in steel products, which have been absorbed by the market. There has been improvement in production also as compared to last year and efforts are being made towards achieving maximum capacity utilisation matching with the increased market demand. The company is vigorously giving greater thrust on the cost control measures during the current year as well. With the improvement in market demand, increase in net sales realisation and cost control efforts, the company expects much better results during the financial year 2002-03.

Capital investment is being restricted to only on-going capital schemes; schemes relating to statutory requirements viz. safety, environment, etc.; essential replacement and schemes required from marketing and quality angle.

Business Restructuring

The Company achieved another landmark in asset restructuring by divesting its captive power plants at Bokaro to the Joint Venture Company namely Bokaro Power Supply Company Pvt. Limited (BPSCL) with Damodar Valley Corporation (DVC) as the Strategic Alliance Partner in the JVC. Through this divestment a capital gain of Rs.391 crores was achieved. The divestment of Captive Power Plant-II at Bhilai was also completed successfully with NTPC as Strategic Alliance Partner in the Joint Venture Company viz., Bhilai Electric Supply Company Pvt. Limited. This resulted in capital gain of Rs.99 crores. The process of divestment of other non-core assets including Oxygen Plant-2 of Bhilai Steel Plant, Salem Steel Plant, Visvesvaraya Iron & Steel Plant, Rourkela Fertilizer Plant and Indian Iron & Steel Company Limited is in different stages. There are certain hurdles like resistance by the employee unions, political parties etc.

One other major restructuring task was the reorganization of the company from a functional setup to a Strategic Business Unit (SBU). Considering the scope of such a major organisational restructuring and the implications with respect to location of head quarters of the SBU, Board structure etc., it has been decided to take up the implementation in two Phases. In Phase-1, many critical changes such as separation of branches and stockyards, enhanced key accounts management process, modified system of Management Information System, improved reward and punishment system etc. have been taken up for implementation. The 2nd Phase consisting of organisation structure at top level on flat product/long product basis will be taken up later for implementation. Implementation of the other business restructuring interventions like rightsizing of manpower, purchase cost reduction, sales force effectiveness etc. are also progressing satisfactorily.

The Company launched a scheme for leasing of houses to employees/ex-employees. Over 9000 employees, spouses/legal heirs of deceased employees have become proud owners of their own houses in the Steel Townships. By leasing of houses in its different townships, the company has collected about Rs.200 crores as premium from leased dwelling units.

Production Performance

The four integrated steel plants of SAIL at Bhilai, Durgapur, Rourkela and Bokaro ended the year 2001-02 with an output of 11.33 million tonnes of hot metal, 10.47 million tonnes of crude steel and 9.46 million tonnes of saleable steel. Alloy and Special Steel Plants produced 2,34,000 tonnes of saleable steel.

The details of production plan and achievement for the 4 integrated steel plants during 2001-02 are as follows :

(In million tonnes)

Item	Target	Actual	Fulfilment(%)
Hot Metal	11.60	11.33	98
Crude Steel	10.97	10.47	95
Saleable Steel	9.72	9.46	97

During the year, saleable steel production from the four main steel plants at 9.464 million tonnes, registered a growth of about 1 per cent over previous year. Continuous cast production increased by 6 per cent over the previous year, with proportion of concast going upto 57 per cent from 54 per cent last year.

However, production in the flat products and alloy steel segments continued to be affected by depressed market conditions. The Company re-oriented the product-mix in favour of long products, as per market requirements. There has been significant increase in production of rails at Bhilai by 24 per cent to achieve the highest ever production of 5,84,000 tonnes through in-house improvements.

The plantwise production performance of saleable steel during April-December, 2002 is given hereunder:

	Plant	Target	Actual	'000 tonnes Fulfilment(%)
	Bhilai Steel Plant	2796	2618.3	94
	Durgapur Steel Plant	1165	1135.0	97
	Rourkela Steel Plant	1163	1083.8	93
	Bokaro Steel Plant	2462	2500.0	102
(A)	**Total Four Plants**	**7586**	**7337.1**	**97**
	Alloy Steels Plant	64	70.6	110
	Salem Steel Plant	76	61.5	81
	Visvesvaraya Iron & Steel Plant	66	59.5	90
(B)	**Total Special Steel Plants**	**206**	**191.6**	**93**
	Total SAIL(A+B)	**7792**	**7528.9**	**97**

There have also been improvements in important techno-economic parameters, such as:-

Lowest ever coke rate of 539 kg/thm, with 5% reduction over previous year.

Decline in refractory consumption, by 1% over previous year.

Energy Conservation

The continued emphasis on energy conservation measures helped further in reducing energy consumption per tonne of crude steel for the 15th successive year and reached an all time low of 7.69 Gcal/tcs during 2001-02 which was 3% lower than the energy consumption of the previous year. During the period April-December, 2002 energy consumption was 7.56 Gcal/tcs, which was 3% lower than April-December, 2001.

Captive Power Generation

Captive power generation in SAIL during 2001-02 was 484.34 MW. Captive power generation during the period April-December, 2002 was 459 MW.

Environment Management

SAIL has put in concerted efforts for pollution control and environmental protection for over a decade. During this span of time, tangible improvements have been achieved in environmental indices like reduction in particulate matter (PM) emission, water consumption, energy consumption and remarkable increase in solid waste utilisation.

Bhilai and Bokaro Steel Plants have received the prestigious Lal Bahadur Shastri Memorial Gold Awards for “Best Pollution Control Implementation” and “Best Environmental and Ecological Implementation” respectively from International Greenland Society for Excellence in Indian Industries. Durgapur Steel Plant has bagged the Indo German Green Tech Excellence Award on Environment for the year 2000-01.

Efforts to introduce structured Environments Management System (EMS) at various units of SAIL has resulted in ISO 14001 certification for 5 units of SAIL so far. Further two more units viz. Rail & Structural Mill of Bhilai Steel Plant and Sinter Plant II of Rourkela Steel Plant are due to get accreditation to ISO 14001 shortly.

Life Cycle Assessment (LCA) study has been completed at Bhilai Steel Plant and the draft report has been submitted to MoEF. First interim report on the assignment from Central Pollution Control Board for “Description of Clean Technology and Development of Environment Standards for Iron Ore Mines in India” has been submitted to CPCB and further work is in progress.

Environment training programmes are continually being taken up at various units to create awareness among its employees and integrate it into operational and maintenance practices. Apart from this, observance of World Environment Day, Environment Month, Mines Environment & Mineral Conservation Week etc. are regular features across SAIL units. In order to inculcate awareness among school children, over 250 Eco Clubs have been made actively functional. Green belt development and planned afforestation programmes have continued to receive special attention in plants and mines this year too.

Sales and Marketing Performance

During the year, the steel consumption in the country registered a nominal growth of 2.6 per cent and there was a situation of over supply. International prices continued to dip and coupled with protective measures by several countries including USA, the exports were under stress. Despite this, the company could export around 5.55 lakhs tonnes of mild steel to various destinations across the world, registering a growth of about 17 per cent over last year. Further, by adopting aggressive market oriented strategies, the company could sell 9.3 million tonnes of mild steel registering a growth of 5.7 per cent over previous year. The company has also increased its market share of the product.

There was a significant increase in the sales of railway material, plates, HR coils & HR sheets. The product mix was continuously reoriented to keep pace with market demand. Higher availability of special grade products like API Grade HR Coils, plates, pipes, HR coils for cold reducing segments etc. enabled the company to maintain and achieve larger market share in value added segments. The Company has endeavored to expand the customer base by entering into annual tie ups with major customers and Project authorities. With a market driven pricing system, emphasis on key customer accounts by special customer service, increased product focus and constant reviewing of distribution channels, company could achieve an appreciable growth in sales during the year.

Capital Schemes

At Bhilai Steel Plant, Sinter Plant-3 has been dedicated to the nation by the Steel Minister. The sinter charge in BF burden has increased to about 70%, resulting in substantial improvement in the performance of blast furnaces. Additional facilities for meeting enhanced rail requirements of Railways were inaugurated by the Minister for Railways. For long rail facilities, consultancy agreement with M/s. Corus Consulting Ltd., U.K. has been entered into for providing back-up technological support. Tendering activities for the project are in various stages of processing.

At Durgapur Steel Plant, upgradation of Blast Furnace No.3 has been completed. With the completion of this project, the hot metal capacity has enhanced to over 2 Mtpa with 3 Blast Furnace operation. Also the work of INBA cast house slag granulation Plant in Blast Furnace-3 is being implemented. Further, additional wheel testing facilities at Wheel & Axle Plant to meet enhanced quality requirements of Railways have been completed.

At Rourkela Steel Plant, the project for upgradation of ERW Pipe Plant to meet the quality requirements of pipes and to produce API-5L grade of X-70 pipes has taken-off. The tendering activities for rebuilding of Coke Oven Battery No.1 with the necessary facilities for achieving the emission standards as per the Central Pollution Control Board (CPCB) norms have started.

At Bokaro Steel Plant, work roll spindles of finishing stands of Hot Strip Mill have been modified to facilitate quick work roll changing, thus improving the quality and productivity of the Mill. Combined blowing facilities in SMS-II has been commissioned in one converter. For Reheating Furnace-2, dismantling, major concreting work and imported equipment supply have been completed. Equipment erection work is in progress and the furnace is likely to be commissioned by year end. Reheating Furnace modification will help in achieving better quality of hot rolled coils besides reducing energy consumption in the Mill. The scheme of installation of tension leveler in Slitting Line No.3 of Cold Rolling Mill has been taken up to achieve the required flatness level of cold-rolled products to improve their marketability.

Raw Materials

During the year, the total iron ore and flux production from captive mines was 17.462 million tonnes and 2.535 million tonnes respectively. Almost the total requirement of iron ore for different steel plants of the company was met from the company's own captive sources. The production of iron ore and fluxes during the period April-December, 2002 was 13.206 million tonnes and 1.921 million tonnes respectively.

The Company has undertaken, on experimental basis, procurement of three commodities viz. calcium carbide, wire ropes and cables through Reverse Auction, by introducing e-Procurement in SAIL. This has resulted in reduction in procurement prices and substantial benefits are expected in future. SAIL is possibly the first Public Sector Undertaking in the country to introduce e-Procurement through Reverse Auction. Encouraged by the outcome, the Company has identified additional commodities/items for e-Procurement through Reverse Auction.

In- House Engineering

Centre for Engineering & Technology (CET) has been providing its services in the areas of modernisation, technological upgradation and, additions, modifications and replacement schemes to plants and units within the company and clients outside the company - both in India and abroad.

The major projects implemented during 2001-02 with in-house consultancy services include 'Raw Material Handling System' of Sintering Plant No. 3 of Bhilai Steel Plant (BSP), 'Transportation of Sinter from Sintering Plant No. 3 to Blast Furnaces' of BSP, 'Installation of Combined Blowing Technology in Converter No. 1 at SMS-II' of Bokaro Steel Plant (BSL), 'Upgradation of Blast Furnace No. 1' of Rourkela Steel Plant (RSP), 'Augmentation of Wheel Testing Facilities in Wheel & Axle Plant' and upgradation of BF-3 at Durgapur Steel Plant (DSP) and 'Installation of 4.2 MW Power Plant' at Maharashtra Elektrosmelt Limited (MEL). Some of the ongoing projects being implemented with in-house consultancy are 'Finishing of Long Rails at Rail & Structural Mill' at BSP, 'Installation of Walking Beam type Reheating Furnace No. 2' at BSL and 'Installation of Gas Cleaning Plant in BF-4' at RSP.

Besides the above, CET also provided consultancy through SAIL Consultancy Division for some of the projects under implementation for clients outside the company. The Wire Rod Mill at NICCO, Kolkata was commissioned during the year and Installation of 3rd Cowper Stove at Chanderiya Zinc Smelter of M/s Hindustan Zinc Ltd is under implementation.

Human Resources Management Review

SAIL has always believed that human resource is one of the most important resources and continues to work for its development. Ongoing restructuring process of the organisation also focuses greatly on proper utilization of human resource and its rightsizing to make the Company healthy.

With the above in view, effective two-way communication on issues arising out of the change process, was launched. This has helped in ironing out the road blocks which normally emerge in any restructuring exercise. Besides creating proper awareness and urgency amongst the employees for carrying out the large scale organizational changes, it has helped the company in getting support for facilitating the restructuring process, particularly the divestment of power plants. Similar communication exercise has been accepted as a continuous process to keep the employees informed of the realities being faced by the Company, and also motivate them to take up higher responsibilities, in tune with the requirements of the Company.

Manpower Utilisation

The manpower strength as on 31st March 2002 was 1,47,601 comprising of 16,003 executives and 131,598 non-executives registering a reduction of 9118 employees during the year. The manpower productivity at 111 tonnes of crude steel per man per year registered an increase of 6 percent over the previous year. With a view to optimizing the manpower and reducing the labour cost, a Voluntary Retirement Scheme based on Department of Public Enterprises (DPE) guidelines with lumpsum payment was launched whereby over 6500 employees were separated. Further efforts on manpower rationalization through Voluntary Retirement Scheme are continuing in the current year also. To make incentive and reward schemes more meaningful, a modified scheme was implemented during 2001-02 putting greater thrust on profitability as a parameter.

New Vision and Credo statements for the Company were adopted during the year. The vision statement speaks of making the company a respected world-class organization in quality, productivity, profitability and customer satisfaction. HRD initiatives in the company are directed towards the Vision of the Company and creating and nurturing a culture that supports flexibility, learning and is proactive to change. It also strives to work towards charting a challenging career for employees with opportunities and rewards. Through its actions and belief, it is committed to make a meaningful difference in the employees' lives.

Training

Need-based training was provided to employees to equip them to meet the challenges of the competitive environment. Over 70,000 employees were trained during the year. During April-December, 2002, 53,496 employees were trained.

Awards

An employee of Bhilai Steel Plant (BSP) was selected for Prime Minister's Shram Vir Award for the year 2000. A teacher from BSP was awarded President's award on Teachers day. Besides, a Principal from Bokaro Steel Plant was awarded Rashtriya Shikshak Samman by the Vice-President and another teacher from BSP was awarded the Shikshak Samman by the HRD Minister.

Sports

The company continued its thrust in the sports arena. The company was represented in the CII National Committee on Sports and also featured in the national sports promotion body of the Ministry of Sports and Youth Affairs. The company participated in prestigious sports events like IFA League, Beighton Cup and NN Mohan Memorial Cricket Tournament.

Employees' welfare

The welfare of employees remained a priority for the company during the year as it has been throughout the past several years. The company continued to provide community support through various welfare measures including providing avenues for social and cultural activities, education for children, housing facilities, co-operative societies and extension of mediclaim schemes to retired employees. On this account, the Company spent an amount of Rs.529.13 crores during 2001-02, and Rs 398.24 crores during April-December, 2002.

Industrial Relations

A conducive and congenial work environment was maintained through the support and cooperation of the Trade Unions and Officers Association.

Vigilance Activities

Position in the sensitive departments were identified and transfers as per the rotation policy effected during the year. Surprise checks and investigation of the complaints were carried out for continuous improvement in the existing systems. Continuous efforts have been made to streamline the system and provide flexibility to perform as per business requirements in the present competitive scenario. Clearance for 'Reverse Auction' was obtained from CVC for purchases to keep pace with recent trend of e-commerce.

Regular interactions were organised between the vigilance and the line managers of Plants/Units in a structured manner to sensitize the managers about the importance of vigilance administration.

Total Quality Process

The Company continued its efforts towards implementation and maintenance of ISO Quality Assurance System (QAS) standards in its plants and units. During the year 2001-02 Ore Bedding and Blending Plant, Calcining Plant II and Steel Melting Shop II of Rourkela Steel Plant and International Trade Division of Central Marketing Organisation received ISO 9002:1994 certification. Transition to ISO 9001:2000 Quality Management System from ISO 9002:1994 QAS was achieved for Hot Strip Mill and Plate Mill of Rourkela Steel Plant, Hot Strip Mill and Hot Rolled Coil Finishing Mill of Bokaro Steel Plant and SAIL Consultancy Division.

Subsidiaries of SAIL

THE INDIAN IRON AND STEEL COMPANY LIMITED

The Indian Iron & Steel Company Limited (IISCO) owns and operates an integrated steel plant at Burnpur, captive iron ore mines at Gua and Manoharpur, captive collieries at Chasnalla, Jitpur and Ramnagore, a coal washery at Chasnalla and a large foundry Complex at Kulti. The Management of IISCO was taken over by the Government of India on the 14th July, 1972. Shares held by the private parties were acquired by the Central Government on 17th July, 1976. The shares held by the Public Financial Institutions etc. were also purchased by the Central Government and subsequently all these shares were transferred to SAIL. IISCO became a wholly-owned subsidiary of SAIL on 30th March, 1979.

Production Performance

Burnpur Works

During the year 2001-2002, the Steel Plant produced 687.6 thousand tonnes of hot metal, 287.7 thousand tonnes of Pig Iron, 345.7 thousand tonnes of crude steel and 302.4 thousand tonnes of saleable steel (including converted steel of 10459 tonnes).

Production Performance: 2001-2002

000/tonnes

Item	Plan	Actual	Fulfillment(%)
Hot Metal	725.0	687.6	94.8
Crude Steel	370.0	345.7	93.4
Pig Iron	309.0	287.7	93.1
Saleable Steel	297.0	302.4	101.8

Production Performance April-December, 2002

000/tonnes

	Plan	Actual	Fulfillment(%)
Hot Metal	545.5	493.0	88.9
Crude Steel	274.0	245.4	89.6
Pig Iron	248.2	203.9	82.2
Saleable Steel	261.7	214.6	82.0

Kulti Works

Total castings output during 2001-02 and April-December, 2002 was 17.02 thousand tonnes and 16.1 thousand tonnes respectively. Spun pipes production was 15.7 thousand tonnes and 5.8 thousand tonnes during 2001-2002 and April-December, 2002 respectively.

Collieries

Total coal raisings from three captive collieries was 1154.7 thousand tonnes during 2001-2002 and 620.7 thousand tonnes during April-December, 2002.

Ore Mines

Iron ore lump production from captive ore mines was 1307 thousand tonnes during 2001-02 and 887.3 thousand tonnes during April-December, 2002.

Capital Schemes

Burnpur Works

During the year 2001-02, the Company incurred cash expenditure to the tune of Rs.7.45 crores on various Capital Schemes including additions/modifications/ replacements. Financial constraints continued to affect the progress of work on ongoing schemes.

Under the Scheme for revamping and upgradation of Merchant and Rod (M&R) Mill, recuperator and roller guides have been installed. Installation of crop-cum-cobble shear, revamping of mill controls system, installation of thermo mechanically treated (TMT) facilities etc. are under progress. Performance of this system was found satisfactory and performance guarantee tests for the same were successfully completed in October, 2001.

Another part of revamping and upgradation scheme for Merchant & Rod Mill comprising installation of slit rolling facility for production of 10 & 12 mm dia thermo-mechanical treated bars was approved in May, 2001 at a cost of Rs. 346.76 lakhs. Major orders covering design and engineering orders for supply of major equipment and supervision of manufacture/installation/commissioning of the project has already been awarded to MECON in June, 2001. It is likely to be commissioned in April, 2003. Tendering activities for the last phase of revamping and upgradation of Merchant & Rod Mill comprising upgradation of mill control system has also been taken up. In addition, few more schemes, e.g. augmentation of 11 KV distribution net work for steel section etc. are also being implemented.

Kulti Works

Guarantee tests for 6T capacity medium frequency induction furnace installed at SPP-2 of Kulti Works have been completed and the Furnace was taken over for regular use from February, 2002. Also thyristor control system for the electric are furnace of steel foundry at Kulti Works has been installed and successfully commissioned.

Financial Performance

During 2001-2002 the Company achieved a turnover of Rs. 911.94 crores (previous year Rs. 941.37 crores). The net loss for the year after charging depreciation (Rs. 23.94 crores) and interest (Rs. 11.63 crores) was Rs. 179.87 crores compared to the net loss of Rs. 187.31 crores during 2000-01. Net loss for the year could be contained mainly due to higher net sales realisation, higher volume of saleable steel production/ sales and favourable techno-economic factors, which were, however, partly reduced by higher input-cost.

The Company achieved sales turnover of Rs.651.61 crores during April-December, 2002 and incurred a net loss of Rs.120.82 crores.

As on 31st March, 2002 the Authorised Capital and paid-up capital of the Company remained at Rs.550 crores and Rs.387.67 crores, respectively. IISCO has continued to make losses over the years owing mainly to technological obsolescence, ageing of plant and equipment, lack of necessary capital inputs and excess manpower.

Sales & Marketing Performance

Domestic Sales

Sale of saleable steel was 293.3 thousand tonnes. Sale of pig iron was 245.1 thousand tonnes.

During April-December, 2002, sale of saleable steel and pig iron was 179.2 thousand tonnes and 176.7 thousand tonnes, respectively.

Export

12.8 thousand tonnes of steel materials and 13.5 thousand tonnes of pig iron were exported in 2001-02.

6.8 thousand tonnes of steel materials and 9.7 thousand tonnes of pig iron were exported during April-December, 2002.

Human Resources Development

The Company attaches great importance to the development of its human resource to improve efficiency and productivity. The Manpower strength as on 31st March, 2002 and 31st December, 2002 was 22767 (comprising 1045 executives and 21722 non-executives) and 22216 (comprising 979 executives and 21237 non-executives), respectively. Scheduled Caste and Scheduled Tribes employees were 12.28 percent and 3.22 percent, respectively, of the total manpower as on 31.3.2002.

Welfare Measures

The Company undertook various welfare measures like maintenance of houses, education for children, medical facilities, socio-cultural activities and other facilities and spent Rs.37.16 crores (net) on welfare measures during the year 2001-02.

Revival of IISCO

The Indian Iron and Steel Company, a wholly owned subsidiary of Steel Authority of India Limited (SAIL) has continued to make losses over the years and has been referred to Board for Industrial and Financial Reconstruction (BIFR) since June, 1994. In June, 2002, Government has approved a revival package for IISCO which, inter alia, includes grants for financing VRS in Kulti Works, which is to be closed down, besides provision of Govt. guarantees to raise money for financing VRS in Burnpur Works and mines & collieries, as well as for capital investments in these units. In addition, SDF loan of Rs. 44.68 crores advanced to IISCO and JPC dues of Rs. 18.49 crores have been waived. According to the directions of BIFR, SAIL has submitted the rehabilitation proposal for IISCO to Industrial Development Bank of India (IDBI), Operating Agency for BIFR. The implementation of the rehabilitation proposal is awaiting the approval of BIFR.

IISCO UJJAIN PIPE & FOUNDRY CO. LTD.

IISCO Ujjain Pipe & Foundry Co. Ltd. (IISCO Ujjain) a wholly-owned subsidiary of IISCO, was decided to be wound up by BIFR in June, 1996. The Official Liquidator has initiated the liquidation process.

MAHARASHTRA ELEKTROSMELT LIMITED

Maharashtra Elektrosmelt Limited (MEL) is a subsidiary of SAIL situated at Chandrapur, Maharashtra. It is a major producer of ferro manganese and silico Manganese and supplies of ferro manganese for captive use of SAIL Plants.

Financial Performance

During the year the Company has recorded a turnover of Rs.155.64 Crores (including conversion income of Rs.133.92 crores) as compared to Rs.186.97 crores (including conversion income of Rs.76.84 crores) in the previous year. Due to increase in power tariff, raw material cost and sluggish market conditions, the Company has incurred a loss of Rs.8.38 crores (previous year Rs.17.84 crores). The turnover and net profit of the Company during April-December, 2002 was 138.92 crores and 110.38 lakhs respectively.

The authorised and paid-up share capital of the Company as on 31.3.2002 was Rs. 30 crores and Rs. 24 crores respectively. SAIL's holding is approx. 99.12 percent of the paid-up capital.

Production Performance

The production of all grades of Ferro Alloys during 2001-02 was as under:-

(In tonnes)

Item	**Quantity**
High Carbon Ferro Manganese	47,299
Silico Manganese	32,147
Medium Carbon Ferro Manganese	1,048

The production performance during April-December, 2002 was as under

(In tonnes)

Item	**Plan**	**Actual**	**Fulfilment %**
High Carbon Ferro Manganese	42,323	41,353	97.71
Silico Manganese	24,238	24,112	99.48
Medium Carbon Ferro Manganese	1,592	1,686	105.90

Sales & Marketing Performance

In order to meet the challenges arising out of the new economic policies and further liberalisation in import, measure were taken by the Company to find markets outside SAIL under the policy "Strategy for Managing Change". The sales of different grades of ferro alloys was 80,498 tonnes as compared to 91,088 tonnes in the previous year.

In view of sluggish market conditions, measures were taken by the Company to find markets outside SAIL. During the year, the Company has resorted to conversion arrangement with SAIL Steel Plants to maximise revenue generation. Though there was severe competition and excess supply in the ferro

alloys market, continuous efforts were made by the Company to sell its products to various customers and also finding new customers for disposal of its products.

Human Resources Management

The manpower strength as on 31st March, 2002 was 885 comprising of 135 executives and 750 non-executives. The manpower strength as on 30.12.2002 was 877 comprising of 133 executives and 744 non-executives.

The number of Scheduled Castes and Scheduled Tribes employees as on 31.12.2002 were 121 and 42 respectively.

The industrial relations throughout the year remained normal. A total of 466 employees were trained during 2001-2002. A total of 15 executives and 28 non-executives were separated under Voluntary Retirement Scheme during 2001-02.

Total Quality & Industrial Safety

Quality Assurance System (QAS) addressed to ISO-9002 (1994) International Standard was successfully maintained in the organisation during the year 2001-2002 and was verified by the Certifying Body M/s. LRQA, Mumbai, by conducting surveillance audit. In addition to the above, the transition activities from ISO-9002 (1994) QAS to ISO-9001-2000 (QMS) has also been carried out on account of revision in ISO-9000 standards. Accordingly, revised standards ISO-9001-2000 has been recently implemented.

During the year under review, the Company has been awarded the SAIL Chairman's silver plaque for "No Fatal Accident during 2000" and special commendation certificate from Ministry of Labour, Govt. of India, for meritorious performance in industrial safety for the year 1999.

Future Plans

To achieve the objectives of the Corporate Plan 2005 A.D., studies were carried out for production of medium carbon manganese through thermit process towards reduction in the cost of production and utilisation of ferro manganese and silico manganese fines. Installation of 30 MW Power Plant on Build, Operate, Lease and Transfer (BOLT) basis is under consideration. Production of special ferro alloys like tatanium and ferro molybdenum is under examination.

BHILAI OXYGEN LIMITED

The company was incorporated with the objective to acquire, promote, develop, establish, own, operate and maintain oxygen plants of all types and

capacities and to manufacture, purchase and to supply oxygen, nitrogen, acetylene, hydrogen and other industrial gases to the steel plants, other agencies and consumers, etc. The Company was to take over assets covered under the Business Restructuring of SAIL relating to Oxygen Plant-II of Bhilai Steel Plant. Due to delay in the restructuring process, no asset has been transferred to the company so far. As such, no commercial activity has been carried out by the company during the period. The company has, however, spent Rs.11,080/- on various miscellaneous matters. There being no income, loss for the period was also Rs.11,080/-. SAIL the bids from the interested parties to become Strategic Alliance Partner (SAP) in the company alongwith SAIL. Detailed discussions were held with the short listed party, which finally failed. However, SAIL has started the efforts afresh for identification.

RASHTRIYA ISAPT NIGAM LTD. (RINL)

Introduction

Visakhapatnam Steel Plant (VSP) of Rashtriya Ispat Nigam Ltd. (RINL) is the first shore based integrated steel plant located at Visakhapatnam in Andhra Pradesh. The plant was commissioned in August 1992 with a capacity to produce 3 million tonnes per annum of liquid steel. The plant has been built to matching international standards in design and engineering with the state-of-the art technology, incorporating extensive energy saving and pollution control measures. RINL has an excellent layout, which can be expanded to over 10 million tonnes per annum capacity. After its commissioning, within a short period of time, the plant achieved high levels of performance in production and technological norms. RINL has emerged as a good corporate citizen and has contributed its mite for the development of the region. Right from the year of its integrated operation, RINL established its presence both in the domestic and international markets with the superior quality of products. The plant has been awarded the certificate of ISO 9002, covering all the processes.

Production Performance

The production for the year 2001-02 and 2002-03 (April-December, 02) is given below:

(Unit: million tonnes)

Item	2001-2002			2002-03	
	Target	Actual	% Fulfillment	Target MoU (Annual)	Actual (Apr-Dec)
Hot Metal	3.120	3.485	112	3.400	2.939
Liquid Steel	2.730	3.083	113	3.000	2.506
Saleable Steel	2.411	2.757	114	2.675	2.225

The year 2001-02 has been a significant year for Visakhapatnam Steel Plant (VSP). For the first time, rated capacities were surpassed. Further, the

production of value added steel products increased from 3 lakh tonnes in 2000-01 to over 4 lakh tonnes in 2001-02, representing a growth of 33%.

Techno-economic Performance

RINL 's performance has been quite commendable not only in production, but also in respect of all the techno-economic parameters,. On most of the techno-economic parameters RINL has created benchmarks in the Indian steel industry. The performance of some of the techno-economic parameters is given below:-

Techno-Economic Parameters	Unit	DPR Norm	2000-01	2001-02	2002-03 (upto Dec.,02)
Coke rate	Kg/tHM	625	531	524	519
BF Productivity (working vol.)	T/cum/day	1.74	1.72	1.86	1.71
Sp.Refractory Consumption	Kg/tLS	34.26	12.8	10.5	9.71
Sp.energy consumption	Gcal/tLS	7.78	7.10	6.62	6.19
Labour Productivity	T/man/yr	200	211	228	250

Marketing

For the first time since inception, RINL crossed Rs.4000 cr. mark in sales turnover by achieving gross sales of Rs.4081 crores in 2001-02. This represents an increase of 19% over 2000-01. Appropriate marketing strategies, strengthening of stockyard operations, better customer service and faster decision-making have been responsible for improved performance levels. Also RINL recorded sales of Rs.3273 crores which includes Rs. 84 crores on account of bi-products, during Apr-Dec 2002, registering a growth of 18% over the corresponding period last year. During this period, sales in the domestic market stood at Rs.2791 crores and exports were at Rs.398 crores.

Financial Performance:

There has been a significant improvement in the financial performance of the company over the years. Production and marketing performance along with

cost reduction measures helped in achieving improved financial results during 2001-02. While operating profits of Rs.690 crores were achieved against Rs.504 crores in 2000-01, the net loss was contained at Rs.75 crores. Till December 2002, based on provisional estimates, the operating profit, cash profit and net profit were Rs.671 crores, Rs.555 crores and Rs.207 crores, respectively.

Energy Conservation

The energy consumption for the last two years and upto September, during the current financial year, 2002-03 is given below:-

Year	G.Cal/t LS
2000-01	7.10
2001-02	6.62
2002-03 (Apr.-Dec.)	6.9

Details of some of the steps taken for energy conservation and the benefits derived are given below.

- Specific heat consumption in coke oven decreased from 705 Mcal/tonnes of dry coal charged in 2001-02 to 667Mcal/tonnes of dry coal charged in 2002-03 due to control of excess air for combustion in all three batteries.
- Specific heat consumption in sinter plant decreased from 44 Mcal/tonnes of sinter produced in 2001-02 to 41 Mcal/tonnes of sinter produced in 2002-03 due to increase in vaccum of sinter machine-1.
- Specific heat consumption in blast furnace decreased from 541 Mcal/tonnes of hot metal in 2001-02 to 536 Mcal/tonnes of hot metal in 2002-03 due to insultating cold blast line of BF1.
- Specific heat consumption in steel melt shop decreased from 47 Mcal/tonnes of liquid steel in 2001-02 to 46 Mcal/tonnes of liquid steel in 2002-03 due to optimal utilisation of tundish heaters and ladle dryers.
- Specific heat consumption in bar mill decreased from 24 Mcal/tonnes of billets rolled on 2001-02 to 23 Mcal/tonnes of billets rolled in 2002-03 due to increase in rolling rate.

- Specific heat consumption in CRMP decreased from 1181 Mcal/tonnes of gross lime in 2001-02 to 1180 Mcal/tonnes of gross lime in 2002-03 due to control of excess air for combustion.
- Specific power consumption decreased from 584 kwh/tonnes of crude steel in 2001-02 to 491 kwh/tonnes of crude steel in 2002-03 due to various energy conservation initiatives.

Industrial Relations

During the year 2001-02, the overall industrial relations scenario in RINL remained peaceful and cordial. A host of pro-active IR measures which inter-alia include confidence building measures (CBMs) between the Union and Management; extensive communication, continuous interaction with plant and shop-floor level Union leaders on various issues, continuous monitoring of welfare measures and quick redressal of grievances have greatly helped in developing a congenial IR climate for high production and productivity. A memorandum of settlement on revision of wages was signed with the recognized Union on 27.9.2001 and the union has committed to maintain industrial peace and harmony and work towards higher production., productivity and net profits. The existing incentive scheme was restructured with built-in provision to motivate employees to produce beyond rated capacity. Discipline on shop-floor level was strictly enforced through computerized daily attendance recording system (DARS) and regulation of exit/ entry of employees through plant gates. In the areas of boundary management, excellent rapport has been maintained with the district administration, labour authorities, police, factory inspectorate etc.

During the above period, the rate of absenteeism was contained to less than 1%. Mandays lost for the year 2001-02 has been recorded at 2,823, which was negligible (0.05%) compared to the total mandays available. In a nutshell, the IR climate during the above period remained propitious for stepping up production and productivity which is reflected in achieving labour productivity as high as 228 tonnes.

NATIONAL MINERAL DEVELOPMENT CORPORATION LIMITED

General

Incorporated on November 15, 1958, the National Mineral development Corporation Limited (NMDC) is an undertaking of the Government of India engaged in the business of developing and exploiting mineral resources of the country (other than coal, oil, natural gas and atomic minerals). Presently its activities are concentrated on mining of iron ore, limestone, silica sand and diamonds.

NMDC operates the largest mechanised iron ore mines in the Country at Bailadila (Chattisgarh) and Donimalai (Karnataka). The limestone project is at Chawandia (Rajasthan) and the silica sand project is at Lallapur, (Uttar Pradesh and the diamond mine is situated at Panna (Madhya Pradesh).

IRON ORE

Production

During 2001-02, NMDC produced 15.63 million tonnes of iron ore. During the year 2002-2003 (upto December2002), 11.61 million tonnes of iron ore has been produced.

Exports

Exports of iron ore produced by NMDC is canalized through Minerals and Metals Trading Corporation (MMTC). Iron ore export is mainly to Japan, South Korea and China. In 2001-2002 export of iron ore stood at 7.7 million tonnes (including direct export of 1.71 million tonnes) valued at Rs. 681.15 crores. In 2002-2003 (upto Dec.2002), NMDC exported 5.64 million tonnes (including direct export of 12.28 lakh tonnes) of iron ore valued at Rs.496.76 crores approximately.

Domestic Sales

During 2001-2002, domestic sales of iron ore was 9.76 million tonnes. In the year 2002-2003 (upto Dec.2002) sale of iron ore to domestic consumers was 7.96 million tonnes.

Diamonds

During 2001-2002, 81251 carats of diamonds were produced. In the year 2002-2003 (upto Dec.2002) the production was 57010 carats.

Silica Sand

Production of silica sand has started at Lalapur Silica Sand Project, Allahabad from November 2000 onwards. Market is being tied-up.

Finance

The authorised share capital of the company is Rs.150 crores. The paid up equity share capital is Rs.132.16 crores. Government of India loans outstanding are Nil.

Financial Performance

The financial performance of the company for the year 2001-2002 and 2002-2003 (upto Dec.2002) are given below:-

(Rs. in Crores)

Item	**2001-2002**	**2002-2003 (upto Dec.2002)**
Sales/Turnover	1268.11	892.58
Gross Margin	383.93	312.70
Profit/loss before tax	343.94	282.08

Disinvestment of shares of NMDC

The Government of India had disinvested shares of NMDC for the first time in the year 1992-93. A total of 21.30 lakh shares representing 1.61% of the paid-up capital was disinvested. The disinvestment fetched the Government an average price of Rs.83.52 per share and maximum price of Rs.100/- per share against the face value of Rs.10/- per share. During the year 1997-98, 5,154 shares of Rs.10/- each have been disinvested in favour of the employees of the Corporation at the price of Rs.71/- per share. In the year 2000-01,2001-02 and 2002-03 (upto December 2002) no disinvestment of shares was done.

Operating Results

During 2001-02, the company earned a profit (before tax) of Rs.343.94 crores and in the year 2002-2003 (upto December 2002) the Company earned a profit (before tax) of Rs. 265.54 crores.

Recognition /Awards in 2002-2003

1. Dr. C. Keshava Rao and Dr. Kamlesh Kumar, Jr. Managers of R&D Centre have received FAPCCI Award (Chelikani Achuta Rao Memorial Award) as the

outstanding scientists for the year 2000-01 at the 84th Annual Function ceremony held in the month of April,02.

2. MOU award for Excellence in Performance was received by Shri P.R.Tripathi, CMD for the year 2000-01 at Vigyan Bhavan, New Delhi on 4th May,2002 from the hands of Hon'ble Vice President of India, Shri Krishna Kant.

3. IIIE Performance Excellence Award for the year 2000-01 was awarded at 5th CEOs Conference on 10th May,2002 at Kullu-Manali, Himachal Pradesh.

4. Donimalai Iron Ore Mine received the Abheraj Baldota Environment Award by FIMI, New Delhi for the year 2001-2002. Award was given in August, 2002.

5. John Dunn Medal for 2001-02 instituted by the Mining, Geological & Metallurgical Institute of India, Kolkata was awarded to Shri P.R.Tripathi, CMD at their 96th AGM held at Kolkata on 28th September,2002.

6. Coal India Productivity Individual Award was conferred on Shri P.R.Tripathi, CMD. The award was received by Shri S.K.Agarwal, Dir.(P) on behalf of CMD on 22.11.02.

7. Enterprise Excellence Award for the Corporation for 2000-01 was awarded by IIIE on 22.11.02 at their 44th Annual Convention held at Mumbai.

8. National Mineral Award for the year 2001 was awarded to Sri. Suresh Chandra, GM (R&D) and Dr. M.K. Dhar, DGM (Chemical) jointly by Ministry of Coal & Mines, Govt. of India. Award was presented on 23rd Dec.,2002 by the Dy.Prime Minister.

Workers' Participation in Management

The Scheme of workers' participation in Management is working satisfactorily at all the three levels viz. Shop, Plant (Project) and Apex (Corporate) level. The meetings of the Joint Councils takes place regularly and follow up action is taken.

Capital Schemes

A) Bailadila-10/11A

Govt. of India approved the scheme of developing deposit-10/11A with an estimated capital cost of Rs.430.50 crores including foreign exchange component of Rs.18.61 crores. The Project construction has been completed. The load trials of Crushing Plant have been taken on 15-7-2002. Equipments in Screening Plant and Loading Plant are under load run operations. The Crushing Plant along with Mine was commissioned on 15-07-2002. The problems noticed in the trial runs are being attended to.

B) Ultra Pure Ferric Oxide Plant, Visakhapatnam

NMDC's Board of Directors in February' 95 had approved setting up an Ultra Pure Ferric Oxide Plant at Visakhapatnam at a cost of Rs.45.98 crores. The construction work has been completed. Due to inordinate delay and repeated failure of various equipments of the systems during trail runs, NMDC after issuing 30 days notice to M/s. ISSI & KTI, has taken over the plant at the risk and cost of M/s. ISSI /KTI on 29.06.2001. Plant has been commissioned. Market establishment is being tied-up.

C) NMDC Iron & Steel Plant(Romelt Process) at Nagarnar, Chattisgarh

The feasibility report of setting up of commercial pig iron steel plant of 0.3 MTPA capacity utilizing iron ore slimes from Bailadila plant based on Romelt technology was approved by NMDC Board in its 322nd meeting held on 19.12.1998 at an estimated cost of Rs.298.68 crores including a foreign exchange component of Rs. 34.89 crores. The Project is to be completed within two years from the date of MOEF clearance or placement of order for main Romelt Shop whichever is later.

Originally the State Govt. had offered land in Geedam village of Dantewada district of Madhya Predesh. Accordingly, NMDC had obtained various statutory clearances required for the project and had also completed the basic engineering works by engaging consultants - M/s. RSIL and M/s. AMET. Even though the State Govt. handed over the Govt. land, it could not hand over the private land due to administrative reasons. In May 2001, the State Govt. offered land at Nagarnar, and four other villages near by; located on NH-43, approximately 16 kms from Jagdalpur on Raipur – Vijayanagaram road. Application to Collector, Jagdalpur for the proposed land at this site was filed on 18.06.2001. Private Land measuring 288.99 hectares pertaining to villages Nagarnar, Kasturi, Amaguda and Maganpur was handed over by District Administration to NISP on paper on 29-09-01. Out of 303 land oustees, 299 have collected their compensation till date. Government land measuring 114.01 hectares was also handed over to NISP by GM, DIC on 08.10.01 on paper. Demarcation of the entire land was completed on 14.03.2002 by District authorities. Environmental Approval from MOEF, Govt. of India has been received. Construction of compound wall for the plant has been completed. Action is on hand to procure the equipment and erection. Supporting services and other facilities are in progress.

New Business Development

Exploration of Gold in Madagascar

NMDC Board of Directors in its 325th Meeting held on 28-05-99 approved the Madagascar Gold Investigation work to be carried out in two phases in association with NGRI. A Wholly Owned Subsidiary (WOS) Company has been

registered and incorporated with the name National Mineral Development Corporation-SARL in the Republic of Madagascar.

The field investigations done over an area of 100 square km. in Antalaha region led to zeroing in on reduced and specific areas. Two prospective areas were identified for further exploration to establish mineralization potential. In order to assess the third dimension, i.e., the depth up to which mineralization exists, exploratory drilling was done using the three drilling rigs shifted from India for the purpose. Similar investigations were carried out in Betsiaka area as well.

Meanwhile, in the wake of the Presidential election held in Madagascar in December 2001, the country was in the throes of political turmoil. Normal life and business activities have been affected. Because of the uncertain situation, the exploration activities in Madagascar have been suspended for the time being. The drilling machines have been shipped back to India have been received and sent to respective destinations.

Exploration / Exploitation of Gold in Tanzania

NMDC obtained three prospecting licenses for gold in the United Republic of Tanzania. Phase-I exploration involving 1135 m. of RC drilling, survey, mapping, sampling and chemical analysis (1132 samples) in Bulyang'Ombe PL-1 has been completed. Reconnaitory survey and surface sampling has been done in Bulyangombe PL-II. The Board of Directors in the 350th meeting has approved the proposal for conducting 2nd phase exploration work in Bulyang'Ombe-I and reconnaitory nature of work in Bulyang'Ombe-II and Siga Hill areas. A total of 8000 m. of RAB drilling has been planned in 3 areas. A team has been deputed to Tanzania on 06-08-2002 for 3rd stage exploration in Bulyang Ombe-I and Siga Hills areas. The works include about 1500 m core drilling and trenching in Bulyang Ombe-I block and RAB drilling in Siga Hills area. Work has been completed and the final report is under preparation.

Namibia

NMDC has opened a wholly owned subsidiary company "Nam India Mineral Development Corporation" (NIMDC) on 2nd February, 2001. NMDC branch office is also opened on 23rd June, 2001 at Windhoek, capital of Namibia. NIMDC, a subsidiary company of NMDC, at Namibia has been allotted Exclusive Prospecting License (EPL) over an area of 150 sq.km against our application for 430 sq. km. for diamond. Besides, M/s. Reefton who holds an EPL area for diamond and beach sand minerals is willing to offer the same to NMDC for prospecting. The proposal is awaited.

Geological reconnaissance against two EPLs (measuring 1000 sq.km.each) was carried out to locate tantalite bearing pegmatite and quartz vein intrusive into the granites and meta-sedimantaries covering an area of around 2000 sq.km.Numerous traverses were taken through the geological formation in various directions, nature of emplacement of pegmatite veins, its grain size and

associated hydrothermal minerals were studied. Samples were collected from large number of pegmatite veins and 131 samples were sent for chemical analysis to ascertain the grade of tantalite of respective veins. Two blocks, which reflected high tantalum values, have been demarcated for First Stage Exploration. Based on available data, interim report of tantalite exploration in Namibia has been prepared. Chemical analysis results of remaining samples are still awaited. Map and section preparation is in progress.

Mozambique

NMDC has applied for one area of EPL for beach sand applied after field study was conducted by an NMDC team in December 2001. Allotment of EPL is awaited.

Manpower Position

As on 30th December, 2002 the manpower position in the company is as follows:

Group	**Total No.of Regular Em-ployees**	**No.of S/C Employees out of Col.2**	**No.of S/T Employees out of Col.2**	**No.of OBC Employees out of Col.2**
(1)	(2)	(3)	(4)	(5)
A	952	97	33	67
B	1075	135	123	31
C	2443	452	582	103
D (Excluding San.Khalasi)	1522	316	378	169
D (San.Khalasi)	81	61	6	0
TOTAL	6073	1061	1122	370

Energy Conservation

Details of consumption of energy per tonne of iron ore excavated are given in the following tables.

A) Electrical Energy - KW / tonne of excavation

Year	Target	Actual
2000-2001	2.02	2.11
2001-2002	2.70	2.24
2002-2003 (upto Dec.,02)	2.14	2.46

B) Diesel Consumption - Ltrs./tonne of excavation

Year	Target	Actual
2000-2001	0.29	0.29
2001-2002	0.27	0.29
2002-2003 (upto Dec.,2002)	0.28	0.31

The reason for increase in diesel consumption is that, with passage of time, mining is done at greater depths needing haulage over longer distances.

Projects Implemented During 2002-2003 (upto Dec.2002)

a. Extensive use of fluorescent lamps for all industrial uses.

b. Installation of PF improving capacitors and maintenance of PF at + 0.95.

c. Installation of non-conventional energy sources like solar panels for water heating and cooking purposes in Guest House and hospital.

d. Automatic power factor correction devices installed.

e. Replacement of asbestos sheets by transparent sheets to reduce electricity requirement in conveyor galleries in day time.

f. Reduction in domestic energy consumption.

g. Reduction of idling time of dumpers.

h. Recycling of lubricants.

i. Formulation of Energy Audit Teams and carrying out energy audits.

j. Award schemes for best suggestions.

MANDOVI PELLETS LIMITED

Mandovi Pellets Limited (MPL), Goa is a joint venture company floated by Govt. of India through NMDC Ltd. and M/s. Chowgule & Co.Pvt.Ltd. (CCPL), a private sector Company. The company has its pellet plant at Goa with an annual capacity of 1.8 million tonnes.

During the year 2002-2003, the plant operated only for 52 days from April to June and thereafter the Plant is under shutdown for various reasons. The company produced 1.50 lakh tonnes of pellets and despatched 1.83 lakh tonnes of pellets. The operations of the company for the period April to December 2002 have resulted in a cash loss of Rs.15.52 lakhs. The accumulated losses have thus stood at Rs.124.75 lakhs.

J&K MINERAL DEVELOPMENT CORPORATION LIMITED

Jammu & Kashmir Mineral Development Corporation Limited (J&KMDC) as a subsidiary company of NMDC was incorporated on 19.5.1989 for development of various mineral projects in the state of Jammu & Kashmir. NMDC holds 74% of equity in J&KMDC, the remaining 26% is owned by J&K Minerals Limited, a State Government Public Sector Undertaking. The Dead Burnt Magnesite (DBM) plant of 30,000 tonnes per annum was sanctioned by Govt. of India in November 1992. But, the project construction could not start since the viability of the project was badly affected due to reduction in customs duty on DBM in 1993-94 and further fall in the international price. NMDC intimated this to the Ministry of Steel on whose direction, further activities of the project were kept in abeyance pending establishment of the economic viability of the project. This matter was discussed in detail and it was felt that the project will not become economically viable and therefore it was decided to close the project in its original form for which Government approval was sought.

In the 57th meeting of the Board of Directors of the Company held on 23rd May 2002 at New Delhi, it was decided to stop all the developmental activities of the company and put activities on hold in view of lack results either in sale of raw magnesite or DBM. It was also decided to refer the matter to the boards of

JKMDC and JKML, for winding up. NMDC board has approved the proposal and desired that the same be referred to Ministry of Steel for its approval. However decision of the JKML board as well as Government of Jammu and Kashmir is awaited in the matter.

IN-HOUSE PROJECT

Development Projects

(A) Log washer test with Doni CLO to find out the effectiveness of the process on improving the physical and metallurgical properties and reduction of adhered fines.

The log washer test was conducted at Mineral Enterprises (P) Ltd, Chitradurga by processing about 1600 MT of Doni CLO. The results indicate that though there is marginal improvement in chemical quality, the improvement in physical and metallurgical properties is substantial. Moreover there is good indication that in log washed lumps, there is very little generation of fines during loading, transportation and unloading from Chitradurga to KISCO plant at Mangalore. Based on the above studies, the introduction of log washer in the circuit at DIOP is under consideration.

(B) Reduction of iron content in processed silica sand sample.

Reduction of iron content in processed silica sand sample from LSSP adopting suitable magnetic separation techniques has been studied. The results indicate that the reduction of iron content to the acceptable limit is possible by processing the sample through magnetic separator for 3 passes. The process is being commercialized.

UTILISATION OF MINE WASTE

1. Kimberlite Waste

Process development for preparation of zeolite-A from fluffy silica obtained from kimberlite waste.

Zeolite-A (Sodium Alumino Silicate) is widely accepted as phosphate substitute, eco-friendly, highly effective builder material in detergent and cleaning agents. Given their safe ecological properties, friction and effectiveness, synthetic zeolites have been widely accepted as environmentally compatible builders and there has been worldwide shift from phosphate to zeolite-A usage. The water softening action of zeolite-A reduces precipitate formation, thereby decreasing deposits on textiles and on washing machine parts. It gives excellent results in achieving superior and economical wash. The proposal to undertake collaborative work with CSMCRI, Bhavnagar, for process development for preparation of zeolite-A, precipitated silica and sodium silicate from fluffy silica obtained from kimberlite waste has been finalized. MOU agreement was signed with CSMCRI, Bhavnagar. 300 Kgs of rich silica was prepared from kimberlite waste and the same was sent to CSMCRI, Bhavnagar, for development studies

for preparation of above products. Physical characterization studies at CSMCRI have been completed and laboratory tests are being undertaken to optimize parameters.

2. Blue Dust

Production of Power Ferrite Powder from UPFO

500 Kgs. Of Power Ferrite (RTP) granules were produced in Pilot Plant. This lot of 0.5 MT has given required specifications of CEL (equivalent of N-67 of siemens). 2.0 Kg sample was evaluated at CEL, Delhi and got approved. 1.0 MT trial order from CEL was received and the order quantity has been supplied to CEL, Delhi. Another order from CEL for supply of 1 MT PF-5 was also received and the ordered quantity to the client will be supplied shortly.

Production of carbon-free sponge iron powder and development of value added products

The work on development of process for production of carbon free sponge iron powder (CSIP) and value added products therefrom has been taken up jointly by NMDC and DMRL. The objective of the study is to market about 300 MT of CSIP, which is proposed to be produced by setting up of a pilot plant of 300 TPY at R&D Centre, Hyderabad. About 2 tonnes of CSIP has been produced from blue dust concentrate through hydrogen route. One set of full density components has been prepared from this powder for preparation of soft magnetic material and the magnetic characteristics of these components have been evaluated and supplied to M/s Hytronics. The firm has used these components in the production of electro magnetic relays used for Indian Railways. The firm has certified that the soft magnetic material is suitable for the application as above and the firm has indicated a requirement of 50 tonnes of material for the same use. Action has been initiated for preparation of full density components using 2 tons of CSIP to M/s.Hytronics, for market development.

2Kg of CSIP has been supplied to gas institute Kiev, Ukraine for evaluation to find its suitability for use as feed stock for preparation of soft magnetic material. The components prepared out of this powder have been evaluated by M/s Scientific and Engineering Centre "composite materials" of Ukraine and the powder is found to be suitable for their uses and the firm has expressed its keen desire to procure about 120 tonnes of CSIP per annum initially at a price of US $ 3000/- per tonne.

50 kgs of iron powder has been used for preparation of cryogenic bushes and supplied to ordinance factory for trial and evaluation. The bushes were evaluated by the consumer and found suitable for their use. The material fulfilled the required mechanical properties as per OFMK and cleared for final supply. It indicated iron powder requirement of 10 MT per year on regular supply basis.

Friction materials components i.e. break pads have been developed and their friction properties are being evaluated. The friction wear characteristics were evaluated at HAL and found suitable for production of aircraft brake pads. HAL has made a development programme for production of friction material components for automobile sector using CSIP produced from blue dust concentrate.

3. Development of indigenous technology for production of synthetic rutile / pig iron and high pure iron oxide using thermal plasma technology from East Coast beach sand containing about 40-50% iron.

R&D Centre has signed an MOU with RRL (Trivendrum) & RRL (Bhubaneshwar) for setting up of a Pilot Demonstration Unit (30 Kg/hr) capacity for production of synthetic rutile, pig iron and high pure iron oxide from ilmenite concentrate of East Coast beach sand using thermal plasma technology.

Development of New Products

Synthetic rutile, pig iron and high pure ferric oxide from ilmenite concentrate of East Coast beach sand using Thermal Plasma Technology.

Production of Carbon free sponge iron powder and development of value added products.

Production of power ferrite powder from UPFO.

Process development for preparation of zeolite – A from fluffy silica obtained from kimberlite waste.

Quality Improvement Programmes

Being a member of the Bureau of Indian Standards NMDC is participating regularly in updating the test procedures to ores and minerals.

Assignments from Investigation / Construction / Production Projects

The following assignments were completed / were in progress during this period:

(a) Log washer test with Doni CLO to find out the effectiveness of the process for improving the physical and metallurgical (PMT) properties and reduction of adhered fines.

(b) Batch Scale studies on sub-grade ore of Kumaraswamy Iron Ore Mine, C-Block.

(c) Studies for reduction of iron content by suitable beneficiation technique in LSP samples.

(d) Flowability characteristics of laminated and laterite type ores from Bailadila.

(e) Petro-mineralogical studies, microphotography of gold rock samples from Madagascar.

(f) Petro-mineralogical studies, microphotography of 47 Rock samples from PL areas of Ananthapur District.

(g) Chemical analysis of Madagascar gold ore samples (Betsiaka Region) for trace elements and major oxides by X-ray fluorescence.

(h) Chemical analysis of samples form, Namibia for Ta, Nb, Sn.

(i) PMT studies with CLO samples from TC Plant and NPO (Sill / JNECO) from Bailadila-11C.

(j) Flowability studies with white tuff from DMP, Panna.

(k) PMT with iron ore CLO samples from BLD-14, & BLD-5

Likely Collaborations

Technical collaborations between MISA (Moscow State Institute of Steel and Alloys) and NMDC for undertaking development work for preparation of iron based composite materials, nano crystalline powder, magnetic materials from blue dust. MISA has submitted the offer and development work for preparation of nano crystalline powder has been approved by NMDC.

R&D Expenditure

(Rupees Crores)

Year	Turnover	R&D Expenditure	R&D Expenditure as percentage of turnover.
2000-2001	1012.09	5.64	0.55
2001-2002	1127.08	6.39	0.57
2002-2003 (upto Dec.02)	850.28	4.07	0.48

KUDREMUKH IRON ORE COMPANY LIMITED

General:

The Kudremukh Iron Ore Company Limited (KIOCL), country's largest 100% EOU, an ISO 9001:2000, ISO 14001 and Golden Star Trading House Company was established in April, 1976 to meet the long term iron ore concentrate requirements of Iran. An Iron Ore Concentrate Plant of 7.5 million tonnes capacity was set up at Kudremukh. This project was to be financed, in full, by Iran. However, as Iran stopped further loan disbursements after paying US $ 255 million, the project was completed as per schedule with the funds provided by Government of India.

While the project was commissioned on schedule, consequent upon the political developments in their country Iran did not lift any quantity of concentrate. 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 plant was increased to 4 million tonnes with additions/modifications and installation of 0.5 MT Shaft Pelletisation Furnace. The plant went into commercial production in 1987 and is now exporting both blast furnace and DR grade pellets to many countries including Japan, China, Taiwan and Turkey and also to domestic sponge iron units such as Vikram Ispat, Ispat Industries, MSTC Ltd., KISCO and Jindal Vijayanagar Steel Ltd. Iron ore concentrate is exported to Iran, Japan and China.

Production:

Targets of 5.5 million tonnes and 3.75 million tonnes were set for production of iron ore concentrate and iron ore pellets, respectively, during the year 2001-2002. Actual production was 5.410 million tonnes of concentrate and 3.215 million tonnes of pellets.

The target set for production during the year 2002-2003 is 5.5 million tonnes of concentrate and 3.5 million tonnes of pellets. As against the target of 4.030 million tonnes of iron ore concentrate fixed for the period April to December, 2002, the actual production was 3.695 million tonnes which represents 92% target fulfilment. Production of pellets during the period April to December, 2002 was targetted at 2.570 million tonnes and the actual production during this period was 2.429 million tonnes representing 95% target fulfilment. 60,700 tonnes of pellet fines were generated during the said period.

There is a shortfall in production of iron ore concentrate and pellets upto December, 2002 as compared to the targets. The shortfall is on account of the following:

a) Stoppage of concentrator plant for a few days in May, June & December, 2002 for replacement of pipeline, repairs to the process water intake shaft of Lakhya Dam and breakdown and repair to the crusher and also shed full condition;

b) Low RoM from mines and low quality of ore; and

c) The pellet plant stopped production for a few days in May & July, 2002 on account of repair works, and non-availability of required quality of concentrate for pellet production;

Exports

During the year 2001-2002, total shipments were 5.517 million tonnes comprising 2.306 million tonnes of concentrate and 3.211 million tonnes of pellets. For the year 2002-2003, a target of 2.0 million tonnes of concentrate and 3.5 million tonnes of pellets has been fixed. As against a target of 1.492 million tonnes of concentrate and 2.640 million tonnes of pellets fixed for the period April, 2002 to December, 2002, actual shipments were 1.311 million tonnes of concentrate and 2.534 million tonnes of pellets representing 88% and 96% achievement of the respective targets. In addition to this, 70,263 DMT of pellet fines were shipped upto December, 2002. There is a shortfall in export of both concentrate and pellets upto December, 2002 during the year 2002-2003. The reason for shortfall was lower production of concentrate and pellets as compared to the targets and also non-availability of required quality material.

Total sales for the year 2001-2002 was Rs.721.69 crores. The sales crossed Rs.700 crores mark for the first time. Estimated sales for the year 2002-2003 is Rs. 731.12 crores. As against the target of Rs.546.53 crores fixed for the period April, 2002 to December, 2002, actual sales were Rs.499.33 crores representing 91% achievement of the target.

The export earnings during the last five years from 1997-98 and upto December,2002, during 2002-2003 are detailed below:

(Rs. in crores)

Year	Concentrate	Pellets	Total
1997-1998	233.10	360.81	593.91
1998-1999	184.07	363.69	547.76
1999-2000	207.31	413.48	620.79
2000-2001	173.23	409.80	583.03
2001-2002	215.71	505.98	721.69
2002-2003 (upto December, 02)	119.18	380.15	499.33

Financial Performance:

An overview of the performance of KIOCL during the year 2002-2003 upto December, 2002 together with actuals for the previous three years, is indicated below:-

(Rs. in Crores)

Particulars	1999-2000	2000-01	2001-02	2002-03 upto December, 2002
Total value of Sales	620.79	583.03	721.69	499.33
Gross Margin	121.38	118.53	153.25	122.19
Profit after Tax	58.51	58.50	88.37	61.14
Inventories (excluding finished stock)	99.92	85.56	71.80	83.95

Manpower position:

As on 31st December,2002, the total number of employees in KIOCL was as follows:-

Group	Total employees	SC in position	ST in position
A	458	56	12
B	260	10	02
C	1279	190	48
D	152	42	24
D (Safai Karmchari)	35	29	02
Total	2184*	327	88

* Excludes 43 employees deployed from KIOCL to KISCO.

Workers' Participation In Management:

Workers' participation in the Management is encouraged in the plants of the Company by way of involving workers in shop and Joint Councils. The aim of such councils is to evolve a process of consultation and to create a feeling of participation and belongingness amongst the employees. It is also being done to achieve optimum utilization of production resources and promoting productivity. During the year, the Joint Council was reconstituted.

Awards

- The Company was one among the top 10 Public Sector Companies which was conferred with an MoU Award by the DPE, Govt.of India for Excellence in the achievement of MoU target for the year 1999-2000.

- The Company was conferred with "Ispat Rajbhasha Protsahan Shield" for the year 2000-2001 in the Category Region 'C' In recognition of success in the implementation of the Official Language by Ministry of Steel, Govt.of India.

- Karnataka Chamber of Commerce & Industry, Mangalore conferred 'Export Award 2002'. The Company stood at first place for its iron ore export performance during 2000-2001.

- 'GREENTECH' Industrial Safety Award 2001-2002 (Gold Award) by Greentech Foundation, New Delhi in Mines Sector for outstanding achievement of the Company in the field of idustrial sfety.

- The Company was conferred with overall performance Award for Excellence for the years 2000-2001 and 2001-2002 and also Export Achievement Award for Excellence for the year 2000-2001 in the Mines Sector in recongnition of outstanding export performance by Cochin Special Economic Zone & EoUs in Karnataka, Kerala, Mahe & Lakshadweep, Ministry of Commerce & Industry, Govt.of India.

- The Company was conferred with 'Rajabhasha Shield' for the year 2001-2002 by Rajabhasha Vikas Samstan, New Delhi for official language implementation.

- CAPEXIL's Special Export Award in recognition of outstanding Export performance in respect of iron ore for the year 2001-2002.

- International Integration & Growth Society New Delhi has conferred Rashtriya Udyog Award to the Company on 19th December, 2002.

Judgement of Supreme Court on extension of mining Lease

The Company was in possession of mining lease granted in the year 1969 for a period of 30 years. This lease expired on 24.07.1999. Since then, the Company was working on temporary work permits granted to it. An NGO had filed a Writ Petition in the Hon'ble Supreme Court in May 2001, on the question of long-term renewal of mining lease to the Company. The Hon'ble Supreme Court pronounced its Judgement on 30.10.2002 and as per this judgement; the Company can continue mining at Kudremukh only till December, 2005. Some of the major implications of the Judgement are:-

a) the mining operations at Kudremukh shall continue only upto December, 2005;
b) the operations shall be carried out only within the borken-up area; and
c) the mining will be for weathered ore only. The primary ore which lies beneath the weathered ore can not be mined.

In view of the judgement of the Supreme Court a High Level Committee has been constituted by the Company to prepare an Action Plan for the continuance and future operations of the Company, both in the immediate / short-term and long term. This Committee, after studying all aspects, will recommend, inter-alia, the plan for operation till 2005, within the ambit of the Hon'ble Supreme Court Judgement, procurement of input material from alternative sources both within and outside the country, cost estimates for immediate / future requirements alongwith economics / justification thereof, etc. The committee has been directed to finalise the proposed Action Plan by end of February, 2003.

The Company is also continuing its efforts to obtain prospecting licence/ mining lease for exploitation of iron ore deposits in other places in Karnataka, Orissa and Jharkhand.

MANGANESE ORE (INDIA) LIMITED

Introduction

Manganese Ore (India) Limited, (MOIL) was established in 1962. It is the largest producer of manganese ore in India. At the time of inception, 49% of its shares were held by the Central Province Manganese Ore Co. Ltd. (C.P.M.O.), and the remaining 51% in equal proportion by Govt. of India and the State Government of Madhya Pradesh and Maharashtra. Subsequently, in 1977, the shares held by C.P.M.O. in MOIL were acquired by Govt. of India and MOIL became a wholly owned Govt. Company with effect from October, 1977. As on 31.12.2002, the Govt. of India held 81.57% shares in MOIL with State Governments of Maharashtra and Madhya Pradesh holding 9.62% and 8.81% shares respectively.

MOIL produces and sells different grades of manganese ore. These 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 ore, which goes into production of dry battery cells.

MOIL has set up a plant based on indigenous technology to manufacture electrolytic manganese dioxide (EMD). This product is also used for the manufacture of dry battery cells. EMD produced by the Company is of good quality and well accepted by market. MOIL has commissioned a ferro manganese plant in 1998 having a capacity of 10,000 tonnes per Annum.

FINANCE

Authorised Capital of the Company is Rs. 30.00 crores and paid-up capital was Rs. 15.33 crores as on 31.12.2002.

OPERATIONAL & FINANCIAL RESULTS

The physical and financial Performance of the Company for the last 3 years i.e. 1999-2000, 2000-2001 and 2001-2002 is given below :

S.No.	Item	1999-2000	2000-2001	2001-2002
1.	Production			
	a) Manganese Ore (thousand tonnes)	652	654	676
	b) E.M.D. (tonnes)	761	781	786
	c) Ferro Manganese (tonnes)	9787	11327	8763

2.	Turnover (Rupees crores)	134.11	165.22	167.92
3.	Profit before tax (Rupees crores)	17.21	30.99	29.96
4.	Reserves (Rupees crores)	73.58	89.00	104.39
5.	Net Worth (Rupees crores)	88.83	102.13	118.05
6.	Book Value per share (Rupees)	579.91	666.67	770.30
7.	Earning per share (Rupees)	76.52	130.79	127.36

Performance of the Company in 2002-2003 (upto Dec. 2002) is as under :

S. No.	Item	2002-2003 MOU Target (Full year)	2002-2003 Actual (upto 31.12.2002)
1.	Production a) Manganese Ore (Thousand tonnes) b) E.M.D. (tonnes) c) Ferro Manganese (tonnes)	 676 1000 5000	 509.52 678.00 4311.00
2.	Turnover (Rupees crores)	158.43	123.53
3.	Profit before tax (Rupees crores)	24.07	18.42

MARKETING

Due to slow down in the steel sector, consumption of ferro manganese in the country has come down, thereby affecting the domestic sale of manganese ore. In order to reduce inventory, Company has made efforts to export the ore. In the current year, the Company has exported more than 9,300 tonnes till December, 2002.

CONSERVATION OF ENERGY

Consistent with the National policy of conserving energy and also with the objective containing the cost of production, the Company has embarked upon an economy drive in this sphere. Various steps including energy audit have been undertaken to conserve energy and to minimise power consumption.

CAPITAL SCHEMES/PROJECTS

MOIL is planning/implementing the following projects/schemes :

1. Electrolytic Manganese Dioxide Plant (EMD) :

The 600 TPA Capacity Electrolytic Manganese Dioxide (EMD) Plant was set-up as a part of diversification plan. The quality of the product is of international standard. The capacity of this plant has

been expanded twice by 200 TPA on each occasion considering the good demand in the domestic market. The company has received ISO-9002 Certification for its EMD Plant. The present capacity is 1000 tonnes per annum.

2. New EMD Plant :

The work of preparing project report was awarded to MECON who have submitted their report. The same is being studied by the Company. However, due to recession in the industry, this report is being re-examined.

3. Ferro Manganese Plant - Balaghat Mine :

The plant was Commissioned in October, 1998, and various technical parameters were stabilized. During 2001-02 the Plant produced 8763 MT HC ferro manganese as against 11327 MT in 2000-01. The sales during 2001-02 was 7789 MT against 11851 MT during 2000-01. The quality is one of the best in the country and firmly established in the market. Inspite of rising prices of coke and power and comparatively low prices of ferro manganese, the techno-economic norms were improved by constant monitoring. Specific consumption norms in respect of manganese ore, coke, dolomite, electrode paste and other consumables per tonne of HC ferro manganese could be brought below targeted consumption pattern by continuous efforts to improve the technology. Further, measures of cost reduction are under implementation. The Plant generated Rs. 66.73 lakhs profit before tax in 2001-2002.

4. Captive Power Plant :

The Company has been planning to set-up 8 MW capacity Power Plant at Balaghat Mine and 2 MW capacity Power Plant at Dogri Buzurg Mine based on biomass. M/s. MECON Ltd. was appointed for preparation of Techno economic feasibility report separately for both the plants and they submitted the draft report. However, the captive power policy of Madhya Pradesh Govt. is adversely affecting the cost of generation making the project unviable since the policy envisages drawing of 50% of the power requirement from MPEB grid even after installation of a captive power plant. The proposal is pending and will be reviewed when Electricity Bill, 2001 is passed by Central Govt. Regarding Plant at Dongri Buzurg Mine, the report of M/s. MECON is under study.

COST REDUCTION PLANS :

The Company has introduced following cost reduction measures :

- Proper manpower planning and introduction of Voluntary Retirement Scheme (without replacement) to reduce surplus man power.
- Judicious mechanisation of various mining operations.

WORKERS' PARTICIPATION IN MANAGEMENT :

The Company has set up a mechanism for the association of workers' representatives from the grass root level to the Apex Council which functions at the Corporate level, with workers and Management representatives under the Chairmanship of the Chairman-cum-Managing Director to review and find solutions to major problems. There is continuing effort to strengthen this arrangement. In addition, Works/Canteen/Grievance Committees are functioning satisfactorily at each unit. The members of these committees are from different sections of employees.

ENVIRONMENTAL PROTECTION :

The Company is conscious of its responsibility towards protection of environment in its leasehold areas. 58,000 saplings were planted upto 31.12.2002 at different mines. The total cumulative plantation till date is more than 12.50 lakhs.

SOCIAL COMMITMENT :

MOIL had adopted a tribal village viz. Gondi, close to Ukwa Mine in Madhya Pradesh. The Company has introduced a wide range of development activities such as repair of roads, construction of houses for homeless tribals, construction of school building to impart education to tribal children etc. as a part of their ongoing social welfare promotion scheme.

PERSONNEL :

The composition of the work force of the Company as on 31st December, 2002 is as under :

Group	S.C.	S.T.	O.B.C.	Others	Total
A	14	7	25	135	181

B	16	4	34	118	172
C	281	276	338	646	1541
D	1009	1555	2142	758	5464
Total	**1320**	**1842**	**2539**	**1657**	**7358**

Out of the total number of 7358 employees, 834 are female employees.

MSTC LIMITED

INTRODUCTION

MSTC Limited (formerly known as Metal Scrap Trade Corporation Limited)was incorporated under the Companies Act, 1956 on 9th September, 1964. The status of the Company underwent change in February, 1974 to that of a subsidiary of Steel Authority of India Limited (SAIL). In the year 1982-83, the Corporation was converted into a Government of India Company transferring the shares of SAIL to the President of India. It was the canalising agency for import of carbon steel melting scrap sponge iron/hot briquetted iron and re-rollable scrap till February 1992. It was also the canalising agency for import of old ships for breaking; import of which was decanalised and put under OGL w.e.f. August, 1991. Presently, the company undertakes disposal of ferrous and non-ferrous scrap arisings from integrated steel plants under SAIL/RINL etc. and disposal of scrap, surplus stores etc. from other Public Sector Undertakings and Govt. Departments and also import of ferrous and non-ferrous scrap, coke, finished steel and petroleum products in competition with any other private trader.

Capital Structure

The Company has an authorised capital of Rs. 5 crores and paid up capital, as on 31.12.2002, was Rs. 2.20 crores of which approximately 90% is held by President of India and balance 10% by members of Steel Furnace Association of India , Iron and Steel Scrap Association of India and others . Paid up capital of Rs. 2.20 crores includes bonus shares issued in the year 1993-94 in the ratio 1:1.

Reserves & Surplus

Reserves and surplus of the Company as on 31.12.2002 was Rs.59.30 crores.

Location of Units

The registered and corporate office of the Company is located at Kolkatta and it has four Regional Offices at Kolkatta, Delhi, Chennai and Mumbai; three branch offices at Visakhapatnam,, Bangalore and Vadodara and six resident offices at Durgapur, Bhopal, Rourkela , Surat Trichy and Duburi.

Activities

The company has two major spheres of activities i.e. Selling Agency and Marketing.

(a) Selling Agency

The Company undertakes disposal of ferrous scrap and other secondary arisings generated in integrated steel plants and disposal of scrap, surplus stores, etc. from other public sector enterprises and Govt. Departments including Ministry of Defence.

(b) Marketing

After decanalisation in February, 1992, the demand for imported scrap was considerably reduced in the country due to less consumption by EAF and IF units and also availability of DRI products. The company, therefore, enlarged its import basket and it now undertakes import of input material required by large industrial houses on back-to-back order basis. The items of import include petroleum products, lam coke, DR pellets, HR coils, melting scrap etc. It also undertakes trading in items from within the country.

Performance during 2001-2002 and 2002-2003

Physical & Financial Performance

	2000-01	2001-02	2002-03 Upto Dec, 2002
A. Physical			
(i) Selling Agency/Domestic	601.00	598.00	638.00
(ii) Marketing	274.00	413.00	1013.00
(iii) Total Volume of Business	875.00	1011.00	1651.00
B. Financial			
(i) Turnover	349.32	453.75	1299.59
(ii) Operating profit(before interest depreciation and provision)	6.73	7.47	12.27
(iii) Interest depreciation and provision	0.40	0.32	0.37
(iv) Profit before tax			
(v) Dividend	6.33	7.15	11.90
	35%	42%	-

(a) Selling Agency

Volume of scrap disposal achieved during the year 2001-2002 was Rs.598 crores against actual achievement of Rs.601 crores in previous year. Due to mondernisation of steel plants generation of scrap had come down during 2001-2002. Due to cash crunch, Steel Plants of SAIL are also selling scrap directly to the customers..

(b) Marketing

Volume of sales achieved during the year 2001-2002 was Rs. 413 crores against the excellent target of Rs.220 crores and actual achievement of Rs. 274 crores in the previous year.

Employment Statistics (As on 31.12.2002)

The employment statistics of the company, including SC/ST, as on 31st December 2002 are given below:-

a) General

	Executive	Non-executive
Head Office (Kolkatta)	44	82
Kolkatta(ER)	12	20
New Delhi (NR)	15	15
Mumbai(WR)	12	15
Chennai(SR)	11	8
Branch Offices		
Bangalore	8	11

Vizag	12	9
Vadodara	5	2
Resident offices		
Bhopal	1	0
Rourkela	1	1
Durgapur	1	0
Trichy	1	0
Duburi	1	0
Surat	2	0
Total	125	163

b) Male/Female as on 31.12.2002

	MALE	FEMALE	TOTAL
Executives.	109	16	125
Non-Executives	132	31	163
TOTAL	241	47	288

Subsidiary of MSTC – Ferro Scrap Nigam Limited (FSNL)

MSTC plays yet another role of holding company of Ferro Scrap Nigam Limited (FSNL). Till 2001-02, 60% shares of FSNL were held by MSTC and balance 40% shares by Harsco Corporation of USA. During the year MSTC has acquired 40% shares from Harsco Corporation and thus, FSNL has become a fully owned subsidiary of MSTC.

Activities and Objectives

FSNL undertakes the recovery and processing of scrap from slag and refuse dumps in the eight steel plants at Rourkela, Burnpur, Bhilai, Bokaro, Visakhapatnam, Durgapur, Dolvi and Duburi. The scrap recovered is returned to the steel plants for recycling /disposal and the Company is paid processing charges on the quantity recovered at varying rates depending on the category of scrap. Scrap is generated during iron and steel making and also in the rolling mills. In addition, the Company is also providing steel mill services such as scarfing of slabs, handling of BOF slag, etc.

Location of Units

The Corporate Office of FSNL is situated at Bhilai and the Corporation has eight fields units situated at Bhilai, Burnpur, Rourkela, Bokaro, Visakhapatnam, Durgapur, Dolvi and Duburi.

Physical & Financial Performance

The production and financial performance of FSNL for the last two years and for the year 2002-2003 (upto 31/12/02) are given below: -

Item	2000-01	2001-02	2002-03(upto31.12.02) (provisional)
PHYSICAL			
Recovery of scrap (lakh metric tonnes)	15.04	14.97	11.70
Market Value of Production	661.76	658.68	514.80

(Rupees in crores)			
FINANCIAL PERFORMANCE (Rs. in lakhs)			
Total turnover i.e. service charge realised including misc. income etc.	8681.41	8471.11	5308.41
Gross Margin (before Int. & Dep.)	2268.16	2179.59	1175.86
Interest and Depreciation	653.94	770.87	731.25
Profit Before Tax	1614.22	1408.72	444.61
Sales Realization(Rs.per mt. tonne)	526.01	519.37	453.71

Employment Statistics

The employment statistics of FSNL, including SC/ST, as on 31.12.02 are given below:-

A. General

	Executives		Non-Executives		Total
	Male	Female	Male	Female	
Corporate office	25	-	30	4	59
Rourkela Unit	17	-	172	3	192
Burnpur Unit	11	-	85	5	101
Bhilai Unit	19	-	209	1	229
Bokaro Unit	17	-	195	1	213

Durgapur Unit	17	-	145	3	165
Vizag. Unit	16	-	193	2	211
Dolvi Unit	8	-	51	-	59
Redi	1	-	-	-	1
Duburi	5	-	18	-	23
Total	136	-	1098	19	1253

Training

A yearly plan for imparting training to the employees of FSNL, both executives as well as non-executives, is chalked out and the employees are imparted trainings through internal as well as external agencies.

Industrial Relations

Harmonious industrial relations are maintained in all the units of FSNL. There has not been any loss of mandays due to strike, gherao / bandh, etc. in the Company. The Union- Management relationship is very cordial and is being maintained well since inception.

SPONGE IRON INDIA LIMITED (SIIL)

Introduction

Sponge Iron Plant of the Company was initially established as a demonstration unit with a capacity of 30,000 tpa with UNDP/UNIDO assistance to establish the techno-economic feasibility of producing sponge iron (a part substitute for ferrous scrap used by induction and electric arc furnaces) from lump iron ore and 100% non-coking coal. The unit, based on non coking coal from Singareni Collieries Company Limited (SCCL) and iron ores available at various regions in Andhra Pradesh and neighbouring states went into regular operations in November, 1980. Several improvements and modifications were effected to the Sponge Iron Plant based on rotary kiln process to suit the local raw materials and operating conditions, as a result of which it has not only established the viability of the technology but also paved way for the development of Sponge Iron Industry in the Country.

Taking note of the successful operations of the Demonstration Plant, the Company doubled its capacity from 30,000 tonnes per annum to 60,000 tonnes per annum by setting up a second kiln of like capacity. This unit, which was designed and built by the Company's engineers incorporating various improvements and design modifications went into regular production from October, 1985.

The Company has also successfully designed and built a plant for cold briquetting of sponge iron fines (below 5 mm size) which were earlier not used by electric arc furnaces and were being discarded. The Briquetting Plant was commissioned during October, 1987 and is operating at 100% capacity.

A new and innovative project aimed at conservation of energy was commissioned with effect from 1.3.1993 for effectively utilising the sensible heat in the kiln off-gases for generation of electric power. By doing so it has not only improved the thermal efficiency of the process but also substantially reduced the dependence on external power thus effecting saving in costs.

The Submerged Arc Furnace Project with an installed capacity of 45,000 tonnes per annum was set up by SIIL for smelting sponge iron (including sponge iron fines) into high quality (low phos.) pig iron. After having completed the trial runs by January 1996 wherein it was established that the plant could achieve chemical composition at the required level for special grade pig iron, the plant was shutdown without going in for commercial operations due to unfavourable economics. Therefore, in order to utilise the existing infrastructure established with a capital cost of about Rs.30 crores the plant was converted into a silico manganese producing unit through a marginal investment of Rs.1.89 crores. The plant is not in operation due to commercial reasons after completion of the modification works.

Finance

The authorised share capital of the Company is Rs.66.00 crores. As on 31.03.2002 paid up capital was Rs.65.10 crores. (Rs.64.27 crores held by Government of India and the balance of Rs.0.83 crore by the Government of Andhra Pradesh).

Production

The Production and Financial Performance of the Company during the last two years, together with provisional figures for 2002-03 (upto 31.12.2002), is furnished in the table below:

Item	1999-2000	2000-2001	2001-2002	2002-2003 (upto 31.12.2002) (Provisional)
Production				
- Sponge Iron (tonnes)	39,793	55,786	64,507	52,069
- Power Generation (lakh Kwh)	25	54	91	80
- Capacity Utilisation (%)	66	93	108	116
Sales (tonnes)				
- Sponge Iron	48,986	55,819	62,172	53,912
- Sales Turnover (Rs. in crores)	20.68	29.29	32.26	30.15
- Generation of Internal Resources(Rs. in crores)	-11.07	9.87	3.88	5.92
- Net Profit (Rs. in crores)	-14.70	6.64 *	0.55	3.50

* After restructuring ordered by Government of India w.e.f. 01.04.2000.

As against the target of 50,400 tonnes, actual sponge iron production upto December, 2002 was 52,069 tonnes representing 103.3% achievement of target.

Sales and Profitability

Against a target of 51,600 tonnes upto 31 December, 2002, actual despatches were 53,912 tonnes representing 104% achievement with reference to the target.

Operations upto the end of 31 December, 2002 have resulted in provisional net profit of Rs.350 lakhs. The gross margin is at Rs.637 lakhs.

Cost Reduction

The Company has been putting thrust on cost reduction in all the areas. This has enabled the company to reduce its costs significantly.

Indigenisation Efforts

The Company has made considerable efforts for indigenisation of all the equipment which were earlier being imported. At present the Company has done 100% indigenisation of all equipment and spares.

Manpower

The total number of non-executives as on 31.12.2002 was 264 out of which 51 employees belongs to SC Category (19.32%) and 22 persons to ST Category (8.33%). There are 18 women (6.82%) and 3 Physically Handicapped persons.

The total number of executives as on 31.12.2002 was 66, out of which 16 employees belong to SC Category (24.24%) and one (1) employee to ST Category (1.52%). There is one (1) woman employee (1.52%) and one (1) Physically Handicapped employee (1.52%).

Sl. No.	Groups	Total No. of Employees	SC	ST	Ex-Service-men	PH	Women
1	Group A	66	16	1	-	1	1
2	Group B	58	11	4	-	-	1
3	Group C	134	26	6	-	3	4
4	Group D	72	14	12	-	-	13
5	Group D1	--	--	--	-	-	--
	Total	330	67	23	-	4	19

Employees' Participation in Management

In accordance with the Government guidelines various Committees have been constituted providing participation of workers and officers in all the activities of the company. The areas of participation of the employees was decided as under:

- Items relating to planning, modification, house keeping, better inventory control, targets, working result, etc.
- Items relating to operation and safety.
- Items relating to welfare of the employees.

Covering the above said items, Committees viz., Plant Level Committee, Shop Level Committee, Safety Committee, Canteen Committee, Games and Sports Committee, Communal Harmony Committee are functioning. The participation of the employees in all the Committees is active. The suggestions made during the discussions held both by the officers and employees in the said forums are given proper review and implemented wherever they are found to be feasible. All the Committees constituted are found to be working satisfactorily.

Waste Land Development

About 2.0 hectares of waste land is proposed to be levelled to develop greenery as part of clean and green programme by planting saplings.

MECON LIMITED

MECON is the first consultancy and engineering organisation in the country to be accredited with ISO: 9001. It has developed considerable expertise not only in the field of consultancy services like basic engineering, detailed engineering, project management etc. but also in design and supply of equipment for the ferrous, non-ferrous, oil and gas, petro-chemical and other general industries. Long association with integrated steel plants has enabled MECON to build a strong technological base. MECON has diversified its services not only in traditional areas but also in infrastructure areas like power, environmental engineering, ocean engineering, roads & highways, oil and petrochemical, gas pipelines, information technology, defence projects etc. The company is undertaking some of the prestigious projects like Second Launch Pad Project of ISRO, CNG and City Gas Project of Indraprastha Gas Limited, New Delhi; gas pipelines for GAIL; Accelerated Power Development & Reforms Programmes (APDRP) for Ministry of Power/SEBs, etc.

The company has its registered office at Ranchi, Jharkhand and regional office at Bangalore, It has its engineering offices at Delhi, Calcutta, Mumbai, Hyderabad and Chennai. Besides this, MECON has its site offices at Bhilai, Bokaro, Durgapur, Rourkela and Duburi and an overseas office at Lagos (Nigeria).

Capital Structure

The authorised share capital of the company, as on 31st March 2002 is Rs. 400 Lakhs against which the paid up capital is Rs. 242 Lakhs. Out of the paid up capital of Rs. 242 Lakhs Bonus Shares of Rs. 40.31 Lakhs were issued during the year 1996-97.

Management Initiative

During the year, a number of steps were taken to keep pace with the customer needs and emerging business scenario of working with foreign companies both in India and abroad. Some of the steps taken by the company are :-

State-of-the-art Technology Incorporation :

MECON has been fully associated with renovation, modernisation & uprating (RMU), residual life assessment (RLA) and life extension studies (LES) of thermal & hydel power plants and has secured a number of assignments from State Electricity Boards/utilities.

MOU / Agreements on Technology & Business Promotion

During the year, the company has signed following important MOUs/Agreement with reputed national/international organisations :-

- Agreement with Consortium UKRINDUSTRY, Ukraine, M/s Rautaruukki Steel Engineering, Finland, Monnet International Limited, Bhilai Engineering Corporation and Beekay Engineering for installation/rebuilding and modernisation of coke oven batteries in India
- Memorandum of Agreement with UTIN Trade Company Limited, Turkey for Business Development in Turkey
- MOU with M/s SMS-Meer and M/s Bhilai Engineering Corporation in connection with long rails
- MOU with M/s Siemens for finishing facilities in Rail & Structural Mill
- MOU with GE Fanuc System for automation system

The company has signed MOU with Ministry of Steel for the year 2002-2003.

ISO – 9001 CERTIFICATION

MECON is the first consultancy organisation in the country to be accredited with ISO-9001 certification. This certification for Consultancy, design & engineering, procurement of plant & equipment, construction & project management services and execution of turnkey projects was valid till December 2002. Re-certification audit has already been conducted by TUV and extension of accreditation under ISO-9001:2000 has been recommended by the Auditors. The renewed certificate is expected shortly.

BUSINESS DIVERSIFICATION

Oil and gas pipelines, LNG/LPG terminals, refineries, petro-chemicals, POL terminals; power generation, transmission & distribution; information technology, material handling, infrastructure like ports, roads, highways, bridges, water supply etc. continue to be the main thrust areas identified for business diversification of MECON and notable success had been made in securing jobs in these areas.

FOREIGN ASSIGNMENTS

- **Bahrain :** Consultancy, Inspection & Site Services for Ferro Alloy Project of Bahrain Steel Iron Co., Bahrain
- **Bangladesh :** Inspection services for Bangladesh Steel Re-rolling Mills Ltd.
- **Iran :** Tech. Assistance & Supervisory Services to Mobarakeh Steel Co., Iran and Technical Services to Foolad Technic International Engg. Co., Iran

- **Vietnam :** Consultancy, Engineering & Site Services for Aluminium Hydro-oxide Plant of M/s South Basic Chemicals Company (SBCC), Vietnam
- **Nigeria :** Project Management & Technical Services for reactivation of Ajaokuta Steel Plant, Nigeria
- **Nepal :** Updation of TEFR for Ganesh Himal Lead-Zinc Project for South Asian Development Fund, Nepal

OTHER MAJOR WORKS IN INDIA

- Detailed Engineering & Consultancy for Bhushan Steel Ltd. DRI & Captive Power plant at Orissa
- Third party inspection & supervisory services to Delhi Jal Board, New Delhi
- FR for GAIL for setting up CNG and City Gas Distribution Network in six cities
- Consultancy & engineering services for processing lines of Essar Steel Limited, Hazira
- RLA, Renovation & Modernization of Patratu Thermal Power Station, Patratu
- Supervision services for power sub station & overhead lines for JSEB, Jharkhand
- DPR of Lambapur mines, UCIL, Jaduguda
- Detailed engineering & consultancy for Blast Furnace of Jindal Vijayanagar Steel Ltd., Thorangallu
- Project management services for CNG expansion phase-II of Indraprastha Gas Limited, Delhi
- Consultancy services for Chainsa-Gurgaon pipeline of GAIL, New Delhi
- Detailed engineering & consultancy services for rehabilitation of Rolling Mill for Remi Metals Gujarat Limited
- Site supervision & construction management services for expansion of township of NALCO, Damanjodi, Orissa
- Engineering & construction management services for Training Centre of Nuclear Power Corporation Limited, Mumbai.
- Accelerated Power Development and Reforms Programme (APDRP) from Ministry of Power, Government of India
- Drainage System (inlet & outlet piping, pump, etc.) for WN 87 from Kolkata Municipal Corporation
- Construction of two multipurpose berths for ABG Goa Port Limited
- Consultancy services for construction supervision and inspection of materials for water supply schemes for Gujarat Water Infrastructure Limited

CONSERVATION OF ENERGY

During 2000-2001 MECON submitted a report on Energy Audit study to Uranium Corporation of India Limited at Jaduguda for the optimization and further reduction of the energy consumption and proper management of energy.

With the introduction of Energy Bill 2000 in the Parliament on 24th February 2000, energy audit has become mandatory for power intensive industries. The Ministry of Power, Industrial Development Bank of India & various states Governments have registered MECON as an authorized Energy Auditor.

HUMAN RESOURCES DEVELOPMENT

During 2002-03 MECON laid emphasis on imparting knowledge and skill in following areas by organising programme and workshops.

- Programme on Effective Project Execution
- Programme on QMS Internal Auditors for ISO 9001:2000
- Programme on Personality Development
- Programme on Techno-legal aspects of consultancy
- Programme on Risk analysis on projects
- Programme on Finite Element Analysis
- Programme on NASTRAN Software Package
- Programme on PRIMEVERA Package
- Programme on “Enhancing executive efficacy” and “Effectiveness for results”

MANPOWER POSITION

The company has been able to reduce its employees’ strength from 2853 as on 31.3.2001 to 2173 as on 31.12.2002. Out of this employee strength, 477 belong to Scheduled Caste and Scheduled Tribe categories. MECON continued with its Voluntary Retirement Scheme and 409 employees availed the benefits under the VRS between 1st January and 31st December 2002.

INDUSTRIAL RELATIONS

On the industrial relations front, the company continued to have peaceful and cordial relations with the employees. Most of the issues were settled through dialogue with representatives of non-executive and executive employees.

Rehabilitation Scheme for MECON

The following steps have taken for rehabilitation of MECON

a) In order to reduce its manpower, MECON Ltd. has rolled back retirement age of its employees from 60 years to 58 years.

b) Government has provided guarantee for raising Rs.50 crores to MECON Ltd. with the provision of 50% interest subsidy to reduce its manpower.

c) Engineering strength together with experience of handling large turnkey projects have enabled MECON Ltd. to diversify into non-steel sector. In the diversified area, MECON Ltd. could bag major orders, among them being, Second Launch Pad project of SHAR Center, ISRO and few orders in petrochemical field like foodgrade hexane. Today emphasis is on petrochemicals, infrastructure projects like power, drinking water, ports & harbours, highways etc., where large investments are likely. However, MECON Ltd., due to lack of reference in these diversified areas, is finding it increasingly difficult to establish itself and invariably has to depend on collaborators thereby shrinking its share of business to a large extent.

d) MECON Ltd. has also introduced many cost cutting measures to reduce cost. Idle assets are being put to alternative use or being considered for disposal.

Disinvestment in MECON :

In October, 2001 Government of India approved disinvestment of 51% shares of MECON to a strategic partner with further provision for disinvesting 10% of shares out of the balance to the employees of the company. Consequent to this decision an Inter-Ministerial Group(IMG) was formed for implementing the decision to disinvest in MECON. An advisor was appointed for the purpose and initial expression of interest was sought. However, from amongst the proposals received none of the proposals were found to be suitable. Ministry of Disinvestment, therefore, suggested that the Steel Ministry consider a plan for restructuring of MECON which would enhance the value of MECON in the disinvestment process so as to obtain adequate bidder interest of the company. This exercise is currently underway.

HINDUSTAN STEEL WORKS CONSTRUCTION LIMITED

General

Hindustan Steelworks Construction Limited (HSCL) was incorporated in June, 1964 with the primary objective of creating in the public sector an organisation capable of undertaking complete construction of modern integrated steel plants. HSCL has executed works in steel plants right from the inception till commissioning viz. Bokaro Steel Plant and Salem Steel Plant and was associated with the expansion and modernisation activities of Bhillai Steel Plant, Durgapur Steel Plant, IISCO(Burnpur) as also Bhadravati Steel Plant. With the tapering of works, the company diversified its activities in other sectors like power, coal, oil and gas as also infrastructural facilities like roads and highways, bridges, dams, underground communication and transport system besides industrial and township complexes involving high degree of planning, co-ordination and modern sophisticated techniques.

The Company has developed its expertise in the areas of piling, soil investigation, massive foundation works, high rise structures, structural fabrication and erection, refractory, technological structures and pipelines, equipment erection, instrumentation including testing and commissioning. The company also specialises in carrying out capital repairs and rebuilding works, including hot repairs of coke ovens and blast furnaces and other allied areas in the integrated steel plants. To meet the present day need for setting up of number of infrastructure facilities, the company has tie-up arrangements with some reputed agencies both in India and abroad for providing technical know-how.

Capital Structure

The Authorised and paid-up share capital as on 31.12.2002 was Rs.150 crores and Rs.117.10 crores respectively. The total amount of GOI loan outstanding as on 31.12.2002 was Rs.370.20 crores (Plan Loan Rs.11.50 crores and Non-Plan Loan Rs.358.70 crores). HSCL has received Rs.89.44 crores from Govt. as Non-Plan assistance to pay statutory dues to the separated employees.

Loan from Banks for V.R.

The company has drawn a loan of Rs.318.36 crore in 1st phase from the following Banks under the guarantee given by Govt. of India for separating 7373 employees.

Banks	(Rs.In Crore)
STATE BANK OF INDIA	209.82
INDIAN BANK	56.38
INDIAN OVERSEAS BANK	52.16
TOTAL	318.36

Company has also drawn Rs.50.00crores each from Indian Overseas Bank, Canara Bank and Allahabad Bank under the guarantee given by Government of India for the seperation of employees in 2nd Phase of Voluntary Retirement Scheme. 3152 employees were seperated in 2nd Phase till December 2002.

Performance

The financial performance of the company during the period 2001-2002 and 2002-2003 are as under:

(Rupees in Crores)

YEAR	2001-2002	2002-2003(April-Dec.)
TURNOVER	257.89	198.70
GROSS LOSS	101.30	15.33
NET LOSS	142.08*	20.98**

Interest on loan received from banks is subsidised by Govt. of India.

*The loss includes 1/5th of the expenditure incurred for VR during 2001-2002.
** The loss does not include VR Expenditure incurred in 2002-2003.

Order Booking

HSCL has secured orders of value Rs.141.00 crore till 31.12.2002 which includes steel sector Rs.61.65 crores (49%) and non-steel sector Rs.63.41 crores (51%).

Manpower Position

The manpower position of the company as on 31.12.2002 was 2785. Due to reasons beyond its control the company was carrying excess manpower strength of 22,902 in the year 1985-86 which was far in excess of its requirements and adversely affected the profitability of the company. In order to reduce the manpower, the company decided to introduce Voluntary Retirement Scheme on the lines of DPE's approved scheme in 1986-87. Till December, 2001, a total of 18,595 employees have been separated under the scheme.

Welfare Scheme

Central Welfare Scheme for HSCL employees was introduced with effect from 01.04.1987. It covers all sections of employees in the company. The scheme is intended to provide immediate financial assistance to the dependents of employees in the event of death due to any reason anywhere while in service in the company by a system of voluntary contribution by employees at the rate of Rs.10/- per month..

Rehabilitation Scheme for HSCL

On the basis of an assessment, HSCL decided to reduce its manpower by around 5000 employees to make HSCL viable and competitive. To achieve this goal, HSCL submitted a revival proposal in 2001 to the Government with the following elements:-

a) Grant of non-plan loan of Rs.182.28 crores to enable HSCL to pay salary and wages amounting to Rs.122.58 crores and statutory dues amounting to Rs.59.70 crores outstanding as on 31st March 2001.

b) Increase in Government of India guarantee by Rs.250 crores to facilitate HSCL to raise further loans from banks for separation of around 5000 employees under VRS, along with provision for interest subsidy.

Ministry of Finance has provided non plan assistance of Rs.89.44 crores which has since been released to HSCL. Government of India has provided guarantee for raising loan of Rs.250 crores to the company and with this amount, HSCL has so far separated 3153 employees. The company has 2785 employees on its roll as on 1.1.2003 out of which the company further proposes to separate 1785 more employees.

BHARAT REFRACTORIES LIMITED (BRL)

Background

Bharat Refractories Ltd. (BRL), a Government of India Undertaking was incorporated on 22nd July, 1974 and at present it has the following four units :

i) Bhandaridah Refractories Plant at Bhandaridah;
ii) Ranchi Road Refractories Plant at Ramgarh;
iii) Bhilai Refractories Plant at Bhilai; and
iv) IFICO Refractories Plant at Ramgarh

The Company is engaged in the manufacture and supply of various kinds of refractories not only to the integrated steel plants but also to the mini and midi steel plants.

Capital Structure

The authorised share capital of the company as on 31st December, 2002 was Rs. 11300.00 lakhs against which the paid-up capital was Rs. 10390.42 lakhs.

Performance

The production performance of the different units of the Company during 2001-2002 and 2002-2003 was as follows :-

Quantity in tonnes
Value Rupees crores

Unit	2001 - 2002		2002-2003 (Provisional) upto December'2002			
	Actual		Target		Actual	
	Qty.	Value	Qty.	Value	Qty.	Value
Bhandaridah Plant	16325	22.5076	15693	22.5971	14414	21.4647
Plant Ranchi Road Plant	4147	12.9475	3909	11.9652	3348	11.0356
Bhilai Plant	2068	2.5537	1536	1.9698	1186	1.8043
IFICO Plant	6882	7.0295	2732	2.9619	5171	6.3123
Total :	29422	45.0383	23870	39.4940	24119	40.6169

Financial Performance

During the year 2001-2002 the loss before interest and depreciation in respect of BRL amounted to Rs. 5366.12 lakhs, but after providing for interest, depreciation and prior period adjustment to the tune of Rs. 368.73 lakhs, Rs. 312.15 lakhs and Rs. 287.77 lakhs respectively, it incurred a net loss of Rs. 6334.77 lakhs. During 2002-03 (upto December, 2002) the Company incurred a net loss of Rs.2420.96 lakhs.

Referernce to BIFR

The Company including its subsidiary company, IFICO Ltd. was referred to BIFR in June, 1992. In line with the revival package approved by the BIFR during August,1996, Government of India has already granted relief and SBI has released non-fund based and fund based limit facilities of Rs. 10.00 crore each. UCO Bank has released Rs. 4.00 crore as fund based limit. A review hearing was held on 21.10.1999 wherein the bench directed SBI to conduct techno-economic viability(T.E.V) study and the Company to clear all arrears of P.F dues etc.. M/s MECON Ltd. had completed the TEV Study alongwith rehabilitation plan as directed by BIFR. Based on the TEV Study and rehabilitation scheme, the Company has approached the Govternment for one time assistance for revival of the Company and the Govt. of India has considered and approved the proposal for revival of BRL as under :

1. Rs.55.00 crores. as Non-Plan assistance to liquidate statutory dues in respect of employees who have either already accepted VRS/Superannuated or are likely to accept VRS with normal rate of interest.

2. Rs.90.00 crores as Non-Plan loan for implementation of Voluntary RetirementScheme to bring down the manpower of the Company from 2766 to 1311 with the required interest subsidy.

3. Govt. guarantee (without any guarantee fee) for rasing Rs.30.00 crores for meeting working capital requirement of the Company.

4. Rs.35.00 crores(Rs.7 crores every year during the next five years) for AMR as equity to replace obsolete machinery.

5. Conversion of existing Plan & Non Plan loans as on 2000-01 amounting to Rs.97.89 crores into equity.

6. Moratorium on the repayment of loans and interest upto 2010-2011.

7. Exemptions from payment of guarantee fees in respect of Rs.24.00 crores cash credit limit.

The above Revival scheme would enable the Company to reduce manpower, increase production of value-added items through procurement of critical inputs and there-by improve productivity and profitability.

Foreign Collaboration

Bharat Refractories Ltd. has been able to adapt sucessfully, the technical know-how acquired from KRC for various items of high performance refractories. Except for spinel and magnesia spinel bricks, the technology of which could not be adapted due to constraints of firing facilities, commercial production of all other items, namely, magnesia carbon bricks, slide gate refractories, gunning repair materials and cast mixes of steel ladle have already established. Consequently, the Company has emerged to be one of the major suppliers of MCB to SAIL Steel Plants. The Company has also started commercial production of coke oven silica bricks, for which know-how was acquired from Shinagawa Refractories Co. Ltd., Japan.

The Company has also entered into foreign collaboration agreement with M/s PLIBRICO, France for manufacture of castables for blast furnace trough. The company's project for setting up facilities for production of refractories for continuous casting of steel is under active consideration of Government for its approval.

Energy Conservation

Some of the steps taken for improvement in conservation of energy are as under :

a) Pre-heating of furnace oil is done for achieving better automisation of oil in burners

b) Callibration of fuel pump and nozzle of engines at regular intervals
c) Adoption of appropriate setting pattern of green bricks
d) Uses of recommended lubricating oil for engines
e) Switching off unwanted load for reducing electricity consumption
f) Conversion of Producer Gas Plant from coke to coal fired.

Industrial Relations

During the period from April, 2002 to September, 2002, industrial relations was by and large peaceful except in Bhilai Refractories Plant. In BRP, the local management is unable to pay salary in time due to stopage of production.

Manpower

The manpower position of Bharat Refractories Ltd. as on 31st December, 2002 was as follows :-

PSU	No. of Employees	No. of SC	No. of ST	No. of Ex-Servicemen	No. of physically handicapped	No. of women employees
BRL	2766	269	311	60	28	144

Contract Labour

Contract labourers are engaged occasionally on non-perennial jobs only. They are being paid statutory wages. In addition, they are provided other benefits like Provident Fund, medical facilities, leave etc.

BIRD GROUP OF COMPANIES

INTRODUCTION

Consequent upon nationalisation of the Undertaking of Bird & Company Limited by virtue of The Bird & Company Limited (Acquisition and Transfer of Undertakings and other properties) Act, 1980 (Act No. 67 of 1980), shares held by the said company in twenty one companies as referred to in schedule I to the said Act as "specified companies" stood transferred in the name of the President of India.

Out of the twenty one companies, the following seven companies came under the administrative control of the Ministry of Steel, Government of India based on the shareholding pattern :

(a) The Orissa Minerals Development Company Limited **(OMDC)**
(b) The Bisra Stone Lime Company Limited **(BSLC)**
(c) The Karanpura Development Company Limited **(KDCL)**
(d) Scott & Saxby Limited **(SSL)**
(e) Eastern Investments Limited **(EIL)**
(f) Burrakar Coal Company Limited **(Burrakar).**
(g) Borrea Coal Company Limited **(Borrea).**

Kumardhubi Fireclay & Silica Works Limited (KFSW), one company out of the twentyone companies as referred to above also came under the administrative control of the Ministry of Steel, Government of India. Since KFSW was engaged in manufacturing and marketing of refractory materials it got linked with Bharat Refractories Limited (BRL) and as such it is not related to the Bird Group of Companies.

Burrakar and Borrea which were earlier Coal companies became non-operational after nationalisation of coal mines. These companies are however continuing only to settle the income tax and other essential matters.

EIL is an investment company. Through a scheme of amalgamation under Section 396 of the Companies Act, six other investment companies also under the erstwhile Bird & Co Ltd were amalgamated with EIL in 1984. EIL is having major stake in equity shares of the operating companies under the Bird Group.

Three companies, viz., OMDC, BSLC & KDCL are mining companies whereas SSL is engaged in the activities relating to sinking of deep tubewells and mineral exploration.

Performance of Operational Companies

At the time when the above named companies came under the administrative control of the Ministry of Steel, Government of India, all of them were financially sick. The basic problems which were faced by the above companies were :

i) Inadequate market demand especially of BSLC's products due to change in steel making technology.
ii) Outstanding liabilities.
iii) Excessive manpower mainly in BSLC resulting into heavy burden of fixed expenses.
iv) Huge accumulated losses.
v) Erosion of working capital.
vi) Continuous pressure from unions for better emoluments/amenities which the companies could not agree due to poor financial health resulting in frequent industrial unrest.

With the financial support from the Government of India, Ministry of Steel problems mainly relating to excessive manpower, erosion of working capital and outstanding liabilities could be settled to a considerable extent. Endeavour had simultaneously been made at the Group level to improve marketability of products through better product mix and enrichment of quality.

Performance of the Group (depending on performance of OMDC,BSLC,KDCL and SSL,the four operating companies only) during the past few years as well as during the current financial year (upto December,2002) with respect to sales turnover and gross margin before charging depreciation and interest on Government loans is given below :

(**Rs. in lakhs)**

	97-98	98-99	99-00	2000-01	2001-02	2002-03 (Apr. to Dec.02)
Sales	**3681**	**3494**	**3817**	**4476**	**5124**	**5137**
Gross Margin	**- 112**	**- 104**	**+ 93**	**+ 964 ***	**+ 334**	**775**

* Includes extra-ordinary items in respect of OMDC.

** Before charging interest on Government loans and depreciation

Performance of the Group as a whole suffered set back from 1997-98 till 1999-2000 owing to recessionary trend in the Iron & Steel Industry. During that period there was sharp decline in demand of the products of The Orissa Minerals Development Co Ltd (OMDC) and The Bisra Stone Lime Co Ltd (BSLC) caused by recession in that particular Industry. Through sustained efforts for cost reduction and cost control the negative gross margin before charging depreciation and interest on Government loan could be kept somewhat under control during this period. Consequent upon adoption of various measures taken by these companies during the year 1999-2000 the Group achieved positive gross margin of Rs.93 lakhs. The progress had been maintained subsequently also and position continued to look up. It is expected that with the rising trend in demand position, the Group as a whole, would be able to improve upon the performance during the current financial year i.e. 2002-03 and also in the future years to come.

PERFORMANCE OF THE COMPANIES

THE ORISSA MINERALS DEVELOPMENT COMPANY LIMITED (OMDC)

The company was incorporated in the year 1918 with an authorised capital of Rs.60 lakhs. The mines of the company are located around Barbil, Dist. Keonjhar, Orissa. The activities relate to mining and marketing of iron ore and manganese ore. A number of steps were taken since 1991-92 for improving the performance of the company. This resulted in net profit (after charging depreciation and interest on Government. loan) for the three consequtive years i.e. 1994-95, 1995-96 and 1996-97. Owing to recession in Iron and Steel Industry the demand of its products declined sharply and as a consequence the position deteriorated since 1997-98 onwards. With the improvement in the recessionary trend the demand for iron ore and manganese ore picked up. The company has therefore initiated steps for taking the advantage of the situation by augmenting the level of production/ despatch of its products. The company is endeavouring for development of new zones in the leasehold areas in order to boost production of high grade manganese ore which is required by ferro manganese producers. The company has also set up a low capacity mechanical Jigging Plant to up-grade unsaleable manganese ore fines to saleable high grade manganese ore fines. With the rising demand for calibrated iron ore and coming up of Sponge Iron Plants surrounding mining areas of the company, stress has been laid on increasing production of sponge grade calibrated iron ore for the purpose of augmenting revenue.

The company has also taken appropriate steps to rationalise manpower through implementation of Voluntary Retirement Scheme (VRS) with the grant-in-aid received from the Government. of India. Since introduction of the scheme

in 1992-93 a total of 480 employees of different categories were separated till 31.12.2002.

The company has submitted a re-structuring proposal to the Government of India for consideration. The proposal, if sanctioned, will help not only to wipe out the accumulated losses but also to improve upon the financial position of the company. If re-structuring proposal is approved, the company will also be in a position to approach Financial Institutions/ Banks for finance for the purpose of embarking upon diversified fields.

The year-wise performance of the company is given below :

(Rs. in lakhs)

	97-98	**98-99**	**99-00**	**2000-01**	**2001-02**	**2002-03 (Apr. to Dec.02)**
Production ('000 MT)	467	578	564	668	766	1112
Sales	1846	2042	1986	2282	2542	3226
Gross Margin**	209	406	238	1144 *	374	798
Net Profit/Loss	-475	- 368	- 635	364*	- 505	55

* Includes extra ordinary items i.e. interest on unsecured loan from the Government and excess provision towards depreciation written back.

** Before charging interest on Government loans & depreciation

THE BISRA STONE LIME COMPANY LIMITED (BSLC)

The company was incorporated in 1910 with an authorised capital of Rs.50 lakhs. The mines are located around Birmitrapur in the district of Sundargarh, Orissa. The main activities of the company are mining and marketing of limestone and dolomite. With the change in steel making technology the demand of BSLC's products declined considerably and as a consequence the company ran into heavy losses year after year. Financial support having been received from the Government of India in the form of grant-in-aid, steps were taken to rationalise manpower through implementation of Voluntary Retirement Scheme (VRS). Measures were also taken to change the product mix and improve upon the quality. These efforts resulted in positive

gross margin i.e. margin before charging depreciation and interest on Government Loan to the extent of

Rs. 19 lakhs in the year 1995-96. The position however again deteriorated from 1996-97 initially due to labour trouble and subsequently demand constraints since 1997-98 arising out of recession in the Steel Industry. With the improvement in the recessionary trend, the demand position picked up since 1999-2000 onwards and as a consequence the company stood in a position to reduce the negative gross margin before charging depreciation and interest on Government loans. Along with other measures adopted for improving the financial health the company also relentlessly pursued the rationalisation process through V R Scheme. With the active support from the Government of India the company has been able to separate 3004 number of employees from 1.4.1992 till 31.12.2002. Against manpower strength of 5115 as on 1.4.1992 the strength stood at 1517 as on 31.12.2002. This has helped BSLC to control the wage related cost to a considerable extent and also to reduce the imbalance between the expenditure on account of salary & wages and the turnover. The company however still needs the budgetary support from the Government of India in the form of Plan loan and Non Plan loan to tide over the crisis and come to a stable position.

The year-wise performance of the company is given below :

(Rs. in lakhs)

	97-98	**98-99**	**99-00**	**2000-01**	**2001-02**	**2002-03** (Apr. to Dec.02)
Production ('000 MT)	666	534	702	789	948	712
Sales	1549	1157	1574	1848	2213	1653
Gross Margin	-332	--	-516	-278	- 230	- 68
Net Profit/Loss	-2223	-2590	- 2753	- 3143	-3445	-3058

THE KARANPURA DEVELOPMENT COMPANY LIMITED (KDCL)

The company was incorporated in 1920 with an authorised capital of Rs.40.00 lakhs. The subscribed and paid up capital of the company is Rs.20.00 lakhs only. The mines are located around Sirka, Bihar. The company produces limestone suitable for cement manufacture.

The company's operations suffered set back from December, 1995 onwards when pursuant to a notification issued by the Government of India prohibiting mining of limestone through contract labour, the activities of the company came to a standstill. The company could resume normal mining operations from December, 1996 onwards with the help of departmental workers and through deployment of hired equipment for raising of limestone. The contract mining was allowed by the Government for a period of two years from 22.6.1999. From 1999-2000 onwards the company's performance improved and it had been in a position to achieve positive gross margin before charging interest on Government loans and depreciation during last three years.

The demand for cement grade limestone is of late showing sign of improvement and it is therefore expected that the activities relating to production/despatch of the company will be augmented from the current financial year (2002-03) onwards.

Another positive factor in favour of the company is that based on company's request, the concerned authority has kindly extended the period of exemption as regards contract mining by another five years in order to continue the mining activity.

The company has adopted cost control measures through rationalisation of manpower by implementing Voluntary Retirement Scheme(VRS). This resulted in reduction of fixed wage costs considerably. Since introduction of the VR Scheme in 1992-93, 132 nos. of employees had been separated till 31.12.2002 with the financial support received from the Government of India in the form of Grant-in-aid.

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The year-wise performance of KDCL is given below :

(Rs. in lakhs)

	97-98	**98-99**	**99-00**	**2000-01**	**2001-02**	**2002-03 (Apr.-Dec02)**
Production ('000 MT)	83	76	48	83	88	69
Sales	170	156	97	174	189	146
Gross Margin*	**+ 9**	**+ 4**	**+102**	**+ 13**	**+ 15**	**+ 4**
Net Profit/Loss	**- 29**	**- 33**	**+ 66**	**- 22**	**- 70**	**- 35**

*Before charging interest on Government loans & deprn.

SCOTT & SAXBY LIMITED (SSL)

The company is a wholly owned subsidiary of The Karanpura Development Company Limited (KDCL). The authorised capital of the company is Rs.3.00 lakhs. The company is mainly engaged in the activities of sinking deep tubewells and mineral exploration. Owing to continued disruption in the normal working environment the company was compelled to declare 'Suspension of Work' from 14.11.1992 at its factory and at all the working sites. The 'Suspension of Work' was lifted on 01.11.1996 after a Tripartite Memorandum of Settlement was signed on 19.08.1996 by representatives of Government of West Bengal, workmen of negotiating Unions and the Management of SSL. The activities restarted at all the workshops and sites. After initial setback, the company started earning positive gross margin from 1997-98 onwards. During the year 2001-2002, SSL earned positive gross margin (before charging interest on Government loan and depreciation) to the extent of Rs. 13 lakhs. The company has spread up its activities in the State of Tripura apart from its activities in Assam. The company has also diversified its activities in the field of erection and commissioning of water treatment plant, construction of overhead tank etc. With the present trend of activities there is every expectation of improvement of financial health of the company.

SSL has also taken steps to rationalise manpower by introduction of Voluntary Retirement Scheme (VRS). With the financial support received from the Government of India in the form of Grant-in-aid, the company has been able to separate 252 nos. of employees since 1992 –1993 onwards till 31.12.2002, thus instituting control over wage related cost.

Consequent to enactment of the Companies (Amendment) Act, 2000, the status of SSL changed from deemed public company (under Section 43A) to that of a public limited company from 13.12.2000, SSL being wholly owned subsidiary company of KDCL which is a public limited company under the Group. As per provision of the aforesaid amendment Act, the company is required to raise its paid up capital to Rs.5 lakhs within 2 years from 13.12.2000. The capital has already been raised to Rs. 3 lakhs from Rs. 1 lakh initially. Further step is being taken to raise additional fund from its holding company i.e. KDCL for raising the capital to Rs.5 lakhs in due compliance with the provision of the Act.

The performance of the company in recent years is given below :

(Rs. in lakhs)

	97-98	98-99	99-00	2000-01	2001-02	2002-03 (Apr-Dec'02)
Sales	170	139	160	172	180	112
Gross Margin**	2	2	31*	37	13*	- 2
Net Profit/Loss	-139	-135	-102	- 96	- 386	-149

* Before charging interest on Government loans & deprn.
** Inclusive of write backs concerning previous years.

Development of North Eastern Region.

SSL has taken some part in the development of North Eastern Region. It has played a vital role in the development of tea gardens in the state of Assam by helping utilization of underground water which had been scarce resource in that state. The company had sunk about 600 deep tubewells for tea gardens in the state.

The company subsequently spread up his activities in the state of Tripura and has sunk about 72 nos. of deep tubewells in the state till 31-12-2002. The company has further orders in hand for execution in the state. Thus the sinking of deep tubewells in the state of Tripura constitutes a part of Rural Development Project of the Department of Public Health Engineering. The company has been continuing its activities in these states in the North Eastern Region against heavy odds arising out of disturbed political situation

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