DISINVESTMENT COMMISSION

DECEMBER 2003

'Trikoot - I', IInd Floor Bhikaiji Cama Place, R K Puram New Delhi - 110066

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PART - A

1. INTRODUCTION

The Disinvestment Commission was reconstituted vide Government of India, Ministry of Disinvestment Resolution No.11012/1/2000-Admn. dated 24th July, 2001. Thereafter, the Commission has submitted ten reports (Report Nos. XIII, XIV, XV, XVI, XVII, XVIII, XIX, XX, XXI and XXII). Earlier, during 1996-1999, the Commission made recommendations in respect of 58 PSEs which had been referred to it by the Government.

This Report (No. XXIII) contains recommendations in respect of the following companies:

- (i) Electronics Corporation of India Ltd (ECIL)
- (ii) Ennore Port Ltd. (EPL), and
- (iii) North Eastern Handicrafts & Handlooms Development Corporation Ltd.

With this report, the reconstituted Commission has submitted fresh recommendations in respect of 32 companies and review recommendations for 4 companies. All these reports are available in Disinvestment Commission's website: www.disinvest.nic.in.

Currently, the following Public Sector Enterprises are under consideration and study:

- Andaman & Nicobar Islands Forests Plantation Development Corporation Ltd.
- 2. Andrew Yule & Company Ltd.
- 3. Bharat Earth Movers Ltd.
- 4. Bharat Sanchar Nigam Ltd.
- 5. Central Warehousing Corporation Ltd.
- 6. Container Corporation of India Ltd. (Review)
- 7. Educational Consultants India Ltd.

- 8. Housing & Urban Development Corporation Ltd.
- 9. Indian Vaccines Corporation Ltd.
- 10. Mahanagar Telephone Nigam Ltd.
- 11. National Mineral Development Corporation Ltd. (Review)
- 12. Numaligarh Refinery Ltd.

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PART - B

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2. RECOMMENDATIONS

2.1 ELECTRONICS CORPORATION OF INDIA LIMITED (ECIL)

INTRODUCTION

Electronics Corporation of India Ltd., a 100% Government of India owned company, incorporated in 1967 with the main objective to promote and develop industrial electronics with indigenous know-how and to attain self-sufficiency in atomic energy programme and defence sector. The know-how for various electronic components developed by Bhaba Atomic Research Centre (BARC) was transferred to the corporation for commercial exploitation in initial years. ECIL is under the administrative control of the Department of Atomic Energy (DAE), Government of India

The company's services now span across multiple products and disciplines providing key technology inputs, system integration and system solutions in the areas of Information Technology, Strategic Electronics, Communications, Control and Automation, Instrumentation and Components, with major emphasis on defence and nuclear areas.

The company is operating on Strategic Business Unit concept and the activities are carried out by the following Business Groups / Divisions supported by the Service Groups.

Business Groups/Divisions: Instruments & Systems Division (ISD), Components Division (CD), Telecom Division (TCD), Customer Services Division (CSD), Business Systems Division (BSD), Special Products Division (SPD), Communication Division (CND), Industrial Controls & Consumer Electronics Division (ICD), Antenna Products Division (APD), Strategic Electronics Division (SED), Control & Automation Division (CAD), Servo Systems Division (SSD), Supervisory Control & Automatic Data Acquisition (SCADA), Computer Education Division (CED), Software Consultancy Division (SCD).

Service Groups/Divisions: General Administration Division, Finance & Accounts Group, Personnel Group, Engineering Services Division, Standards & Quality Assurance Group.

The company has an authorised share capital of Rs. 1,500 Mn divided into 1.5 Mn equity shares of Rs. 1000 each. The total paid up capital of the company, as on 31.3.2003, was about Rs.1,298 Mn.

The company is a MoU signing company and its performance has been rated as 'Excellent' for the year 2002-03. The 'Excellent' rating has been obtained for the third year in succession.

The registered corporate/head office is located at Hyderabad, with a unit at Tirupati and zonal offices at New Delhi, Mumbai, Kolkata and Chennai, supported by regional maintenance centers spread across the country. The company has one joint venture called ECIL-Rapiscan with 49% share in equity at Secunderabad. As on 31.3.2003, there were 5481 employees on the roll of the company.

INDUSTRY REVIEW

Electronics/IT is one of the fastest growing industry worldwide and has a profound effect on other industries in increasing productivity as well as changing cost structure and even the way we live and work.

Indian Electronics/IT hardware sector has grown at a CAGR of 11.6% during 1991-2002 reaching a production of Rs. 370 billion (Bn) during the year 2002-03. Growth in production during the Eighth Plan (1992-97) and Ninth Plan (1997-2002) was 15% and 10.3% respectively. India currently accounts for about 0.6% of the global Electronics/IT hardware production of US \$ 1200 Bn (2001). As per the Tenth Plan projection (realistic scenario), Electronics/IT hardware production in terminal year (2006-07) is targeted at Rs.690 Bn.

The software and services industry has emerged as one of the fastest growing sectors in the Indian economy with a growth rate of over 26 per cent during 2002-03 and turnover of US\$ 12.7 Bn (about Rs.599 Bn) and exports of US\$ 10 Bn (about Rs.475 Bn). Indian IT software and services industry is expected to account for about 2.4 per cent of India's GDP and 20.4 per cent of exports during 2002-03 and is projected to account for 7% of India's GDP and 35% of exports by 2008.

Industry Size

Item wise electronics production in the country in the period 1998-99 to 2002-03 is shown in the following table:

Table 1 - Electronics Production

(Rs. Mn)

Item	1998-99	1999-00	2000-01	2001-02	2002-03	CAGR
Hardware						
Consumer Electronics	92000	112000	115500	127000	144000	11.85%
Industrial Electronics	33000	37500	40000	45000	47000	9.24%
Computers	23000	25000	34000	35500	39000	14.11%
Communications &						
Broadcasting equipment	44000	40000	45000	45000	56000	6.21%
Strategic Electronics	13000	14500	17500	18000	22500	14.70%
Components	47500	52000	55000	57000	62000	6.89%
Sub Total	252500	281000	307000	327500	370500	10.06%
Software						
Software for exports	109400	171500	283500	365000	475000	44.35%
Domestic software	49500	71500	94000	116340	124000	25.81%
Total	158900	243000	377500	481340	599000	39.34%
Grand Total	411400	524000	684500	808840	969500	23.90%

Source: Ministry of Information Technology, Gol website/CRISIL Advisory Services (CRISIL)

Electronics Industry Analysis

During the Eighth Plan, investments in the electronics industry took place mostly in high growth areas like colour televisions, picture tubes, glass shells and audio & video components. However, during the Ninth Plan, consequent to the lowering of duties on hardware products, the domestic electronics hardware companies had started losing their dominance in market share and resorted to trading. Share of imports in the total Electronics/IT hardware consumption is progressively

increasing. This trend indicates that overall manufacturing in the country may perhaps be declining despite the growth in production.

The removal of duty protection, together with the relatively small domestic market and domestic market orientation of Indian manufacturers, has resulted in the closure of some of the domestic manufacturing units.

Countries like Taiwan, Korea, Malaysia and, of late, China have recorded much higher growth in Electronic/IT hardware and are exporting worldwide. These four countries together account for nearly 20% of the global Electronics/IT hardware production in the world. China has already emerged as the third largest manufacturer after USA and Japan.

The Information Technology Agreement (ITA-I) of the WTO (World Trade Organization) to which India is a signatory, makes it mandatory to make customs duty zero on select imported electronics components and products. Accordingly, the Government of India has been reducing customs duties on these items gradually over the last five years and the customs duty applicable on 217 tariff lines may be eliminated from the year 2005.

Some of the relevant sectors of Electronics industry are analyzed below in detail:

Control, Instrumentation and Industrial Sector

Instrumentation is a vital tool to modern industry. Control and instrumentation technology available within the country is at a reasonably matured level. Over the next few years, instrumentation will evolve better specific application needs, particularly those affecting cost and productivity.

This segment of the electronics industry is faced with low volumes, fragmented capacities, low pace of growth in infrastructure projects and unbridled competition, particularly in certain segments. This has been a major bottleneck in the growth of industrial electronics sector. The domestic production in this sector of the industry is estimated to be around Rs. 47 Bn for the year 2002-03. However, there have been two distinctly positive signs of improvement in the core infrastructure sector. The steel industry in general has been showing better results and investment

decisions for automation packages are coming up. Similarly, Accelerated Power Development and Reforms Programme (APDRP) of the Ministry of Power has also opened up better opportunities for the industrial electronics sector in this area. Demand for Computerized Energy Management Systems, various Process Control and Drive Systems for steel plants and SCADA / Distribution Automation Technologies, Automatic Meter Reading Technologies, Energy Auditing System, etc., for the power sector has been slowly picking up in recent times and is expected to grow further in the coming year.

Products or systems continue to be supplied in the Indian market, essentially through large-scale imports including the core hardware and software. Local manufacturing and building up of indigenous strength on design and manufacturing processes remain on a low scale.

Communication and Broadcasting Sector

The thrust areas in this sector are Convergence, Communication and Broadband technologies which include the next generation wireless technologies. The broadcast sector covers digital broadcasting of audio and video, IP telephony, broadband access, digital compression, etc. The production of communication and broadcasting equipment, during the year 2002-03 is estimated to be Rs. 56 Bn as compared to Rs.45 Bn during 2001-02.

Strategic Electronics

The strategic electronics sector covers the area of satellite based communication, navigation and surveillance systems, navigational aids, sonars, underwater electronic system, infra-red based detection and ranging system, disaster management system, internal security system, GPS based vehicle tracking systems, etc. The Indian strategic electronic industry derives its strength from the continuous upgradation of products and equipment with emphasis on judicious applications of broadband communication and computer, technologies aimed at adding value to the product. While defence PSUs are meeting the bulk of the requirement in this sector, a number of companies such as WIPRO, Reliance, Satyam, Larsen & Toubro, Zen Technologies, Security Defence Systems, etc from the private sector are contributing to this sector.

As a result of the coordinated efforts made by R&D institutions and industry, indigenous products such as multi-fiber intrusion detection system, multi-energy conveyorised parcel viewer etc., have been developed by CSIO, Chandigarh and ECIL. The production in the strategic electronic equipment during the year 2002-03 is estimated to be Rs.22.50 Bn as compared to Rs.18 Bn during the year 2001-02.

Recognizing the potential of Electronics/IT industry, the Prime Minister's Office set up a National Task Force on Information Technology and Software Development in May, 1998.

National Task Force

The National Task Force constituted a "Hardware panel" for "Development, Manufacture and Export of IT Hardware". The Task Force recognized that successful development of both hardware and software industry is an essential requirement, whether it is to meet the software export target of \$50 Bn by 2008 or IT penetration drive for realizing "IT for all" by 2008.

The Task Force set exports target for IT Hardware of US \$ 10 Bn by the year 2008. It was noted that, in view of the problems faced by the industry relating to inverted tariff structure, inability to attract FDI, procedural bottlenecks, high incidence of duties on capital goods and Government's commitment to implement ITA-1 of WTO by 2005 etc., the growth of Electronics/IT hardware industry was impeded. Accordingly, to make the IT hardware industry competitive and achieve high growth, it suggested measures like bringing tariffs on inputs and capital goods to zero % and simplification in EXIM policy and customs procedures. It recommended an integrated policy package, which focussed on the following major issues:

- Fiscal Policies
- Soft Bonded IT Unit (S-BIT) Scheme
- Procedural Simplification
- Labour Laws
- Export, investment and RBI related issues.

The general approach of the report is being pursued in phases. Over the last four years, EXIM policy for Electronics & IT products has been liberalized, Customs & Excise procedures simplified, tariff on specified capital goods has been brought down to 10% and on a number of raw materials to 5%. These initiatives have, to some extent, addressed the problem related to inverted tariff structure. In line with suggestions on the S-BIT scheme, the EHTP scheme has been tailored by incorporating certain modifications therein.

OPERATIONAL PERFORMANCE OF ECIL

During the year 2002-03, of the total sales, 47.2% was accounted for by the defence sector, 13.4% by the nuclear sector and about 10.3% by sales of Electronic Voting machines to Election Commission. The balance share of sales of 29.1% was accounted for by various business lines serving other sectors like Telecom, Information & Broadcasting, Civil Aviation, Security related equipment, Oil & Gas, conventional power plants and so on.

Nuclear and defence sectors are thus the primary customers of ECIL, as detailed below:

Nuclear Sector

ECIL has indigenously developed products required for energy sector, particularly for Nuclear Power Reactor and Process Control. This sector is primarily dominated by imported technology. Some of the systems developed by ECIL in the area of Automation & Controls are:

- Distributed Control System
- Man Machine Interface system
- Simulator systems to Nuclear Power stations, NPTI both for 500 and 210
 MW units
- I / O systems including intelligent I / O supplied to Nuclear Sector
- Programmable Logic Controllers to Nuclear and other power stations,
- Process Plants

- Technology absorption and manufacture of Self Powered Neutron Detectors
- Fuel Handling control systems to all Nuclear Power Plants
- Computerised operator Information system, Main Annunciator Systems,
 Compact Switching Mode Power Supplies to various Nuclear Power Plants
- Tritium in Water Monitor
- Variety of radiation monitoring equipments

In the nuclear sector, ECIL has an MoU with Nuclear Power Corporation of India, a company under the Department of Atomic Energy, that enabled ECIL to gainfully utilise its manpower and infrastructure to meet the Control and Instrumentation needs of the country's Nuclear Power programme.

Defence Sector

With the backing of excellent R&D capabilities of BARC and Tata Institute of Fundamental Research (TIFR), ECIL has been involved in delivering critical systems for defence sector like computers, displays, fuses for weapons systems, stabilisation systems, antennae, radiation monitoring systems etc.

Strategic electronics has been identified as one of the thrust areas for the long-term business growth of ECIL. ECIL has developed intrinsic developmental, engineering, system integration, testing, installation and commissioning strengths to meet the defence requirement. ECIL has been using the R&D base of BARC and DAE in its developmental efforts.

ECIL has successfully teamed up with DLRL and BEL as a development cum supply agency for a complex and important project related to the country's defence needs. Close business and technology relationships forged with the collaborators and development organisations in the Ministry of Defence have helped ECIL in realising substantial business volumes in the area of fuse and radio communication products.

Product Group Classifications

The following table summarises the principal product groups of ECIL and the sector served:

Table 2 - Product group classification

S.No.	Product Group	Sector being served
1	Control & instrumentation products	Nuclear, oil & gas and power stations
2	Fuse products	Defence sector
3	Communication Products - Radio communication products - Broadcasting products - Electronic warfare products	Defence, information & broadcasting and civil aviation sectors
4	Antenna Products - Line of sight antennae - Earth station antennae - VSAT Networks - Special defence products - Broadcasting products	Telecom, space, information & broadcasting, defence and nuclear sectors
5	Instrument Products - Security systems - Analytical systems - Scan systems - Radiation monitoring and other health physics equipment - Nuclear Industrial Instruments - Special products	Nuclear, defence, civil aviation, R&D and other government sectors
6	Inertial Navigation products - Gyros, Synchros, Cockpit voice recorders, Gyro land navigation systems	Defence Sector
7	Strategic Electronic Products - Missile support products - Aviation products - Air defence products	Defence and civil aviation sectors

...contd.

S.No.	Product Group	Sector being served
.8	Telecom Products - Access products - Line Switching systems - Message switching systems	Telecom and civil aviation sectors
9	IT Products & Services - Hardware - Application software - Computer Education - Post sale support	Banks & Insurance, various customers in Government and PSU domains
10	Electronic Voting Machines	Election Commission of India

Source: ECIL/CRISIL

Key customers

Ministry of Defence and the Department of Atomic Energy are the key customers for the company accounting for about 60% of the total revenue generated by the company. Sales to Ministry of Defence and Department of Atomic Energy have grown by 68.8% and 56.8% respectively during the 1998-99 to 2002-03 period.

An analysis of the customer profile for the company reveals that most of the sales by the company are derived from the Government / PSU sector.

Regulatory Environment

The post liberalization deregulation process initiated by the government in terms of easing restrictions on imports and tariff reductions on imports has exposed the company to international competition. The company's products and services attract regular taxes like excise duty, service tax, central sales tax, Andhra Pradesh general sales tax and corporate income tax. All inputs procured for the purpose of manufacture are eligible for input credits i.e. CENVAT credit, which can be utilized for the purpose of seting off against the excise duty payable on the clearances.

Key Competitors

In the chosen area of strategic electronics, catering to the requirements of atomic energy, defence, civil aviation, security, space etc, ECIL faces competition from

domestic as well as multinational corporation. The table below provides product category wise competitors for the company:

Table 3 - Product group classification

S.No.	Product Category	Competitors
1	Radio Communication products	Bharat Electronics Ltd., India (BEL)
<u> </u>		Hindustan Aeronautics Ltd., India (HAL)
2	Products like Low cost Jammers	BEL
		R&S, Germany
		Thomson CSF, France
3	Communication intelligence systems	ELTA, Israel,
		Tadiran, Israel
4	Antenna Products	BEL,
		COMSAT India,
		Andrews India
5	VSAT Networks	BEL,
		Hughes India,
		ITI,
		Comnet India
6	IT Products & Services	WIPRO NIIT
i	·	HCL APTECH
		CMC Zenith
7	Telecom Products	HFCL UTL, India
	·	MIC Shyam Telecom
	·	ITI

Source: ECIL/CRISIL

Market Position

In respect of some of the product groups, ECIL's domestic market shares are estimated to be as follows:

Table 4 – Domestic market share

Product Category	Market share
Electronic Fuse products	100%
Electronic Voting Machines	50%
Radio Communication products	100%
Antenna Products	80%

Source: ECIL/CRISIL

ECIL has its own marketing and service network, covering the entire country. As indicated earlier, apart from the headquarters at Hyderabad, it has four zonal offices situated at New Delhi, Mumbai, Kolkata and Chennai. To provide effective customer support, it has six Regional Maintenance Centres (RMC) and a number of sub-RMCs and site offices.

FINANCIAL PERFORMANCE OF ECIL

The follolwing table presents the Profit & Loss account of ECIL:

Table 5 - Profit & Loss Account

(Rs. Mn)

	1998-99	1999-00	2000-01	2001-02	2002-03	CAGR
Operating Income	2,238.9	3,959.5	4,850.5	5,954.9	8,921.8	41.3%
Expenditure						
WIP&FG	-112.2	-145.6	-25.3	-253.5	527.5	
Materials Consumed	1,300.9	2,469.5	2,624.8	3,270.1	4,930.7	39.5%
Employee Remuneration & Benefits	1,080.4	1,127.2	1,237.9	1,675.6	1,596.4	10.3%
Manufacturing, Admn. & Other Expenses	294.6	352.2	434.6	385.5	419.4	9.2%
Selling Expenses	61.4	111.1	295.1	249.4	175.2	30.0%
R&D	64.8	92.0	127.7	135.9	221.6	36.0%

...contd.

	1998-99	1999-00	2000-01	2001-02	2002-03	CAGR
Less: Transfer to Projects					·	
& Other Accounts	121.4	203.8	243.4	211.3	339.4	29.3%
Cost of Sales	2,568.3	3,802.6	4,451.5	5,251.5	7,531.5	30.9%
OPBDIT	-329.5	156.9	399.1	703.4	1,390.3	
Interest	266.3	269.8	233.1	49.2	37.3	-38.8%
Depreciation	45.9	48.8	52.1	67.5	62.0	7.8%
OPBT	-641.6	-161.6	113.8	586.7	1,291.0	
Other Income	61.0	144.6	57.4	290.3	347.0	54.4%
Prior Period Items (Net)	-10.5	9.1	-50.3	-83.6	-6.5	
Less: Provision towards			6			
wage revision arrears	0.0	0.0	0.0	0.0	825.7	
Provision for Taxation	-4.7	1.2	-2.8	-100.5	-214.6	
Deferred tax Liability	0.0	0.0	0.0	0.0	-58.7	
Net Profit for the year	-595.9	-6.7	118.1	692.9	532.5	

Source: ECIL Annual Report/CRISIL

The operating income of the company has steadily increased over the period 1998-99 to 2002-03 by a compounded annual growth rate of over 41%. Net profit of the company has also steadily increased from negative Rs. 595.7 Mn at the end of 1998-99 to positive Rs. 532.5 Mn in 2002-03.

An analysis of businesswise performance for the year 2002-03 reveals that out of fifteen divisions, seven divisions are contributing to the profits of the company with a combined profit before tax of Rs. 1214.8 Mn. Eight divisions are incurring losses with a combined loss of Rs. 409.1 Mn.

Other Operating Income

Other operating income includes services and lease rentals. During the year, at the instance of the customers, certain assets have been acquired under lease agreements and are sub-leased to the respective customers under separate sublease agreements.

Material costs

Table 6 - Material costs

(Rs. Mn)

	1998-99	1999-00	2000-01	2001-02	2002-03
Consumption of RM, Assemblies					
& Components	1,279.3	2,485.6	2,648.3	3,266.8	4,946.2
Opening Stock	550.1	496.2	457.8	247.4	322.5
Add: Purchases (after sales & adj.)	1,241.9	2,456.1	2,439.7	3,321.5	5,006.4
Add: Departmental Transfers - Prod	17.9	47.2	80.0	56.6	89.1
Less: Deration/Provision for					
obsolence/write off	34.5	56.1	81.8	36.3	17.2
Less: Closing stock	496.2	457.8	247.4	322.5	454.6
Other materials consumed	21.6	-16.1	-23.4	3.3	-15.5
Total	1,300.9	2,469.5	2,624.8	.3,270.1	4,930.7

Source: ECIL Annual Report/CRISIL

Material costs form the largest component of overall costs of the company amounting to 55.3 % of the operating income in 2002-03, as against 58.1% in 1998-99. Material costs (raw material assemblies and components) have followed the trend in growth of sales and have shown a CAGR of 40.2%.

Employee Costs

Table 7 – Employee costs

(Rs. Mn)

Years	No of employees	Employee costs (Rs Mn)	% of op.	Average Cost per employee (Rs)	YoY growth in per employee cost
1998-99	6801	1,080.4	48%	158854.1	
1999-00	6572	1,127.2	28%	171515.8	8%
2000-01	6073	1,237.9	25%	203833.4	18.8%
2001-02	5746	1,675.6	28%	291610.0	43.1%
2002-03	5481	1,596.4	18%	291266.9	-0.1%

Source: ECIL Annual Report/CRISIL

Employee costs as a percentage of operating income have declined significantly from 48% in 1998-99 to 18% in 2002-03. This decline in employee costs as a percentage of operating income has been precipitated by two factors:

- Decrease in overall employee strength from 6801 in 1998-99 to 5481 in 2002-03.
- Nearly fourfold increase in operating income from Rs.2238.9 Mn in 1998-99 to Rs.8921.8 Mn in 2002-03.

Of the total strength of 5481 employees in the year 2002-03, 3325 (61%) are executives and 2156 (39%) are in the workmen category.

The company has a VRS scheme that was availed of by 225 employees in 2002-03. After the company closed down some of its hardware manufacturing business, about 2000 people were rendered surplus. Out of them, nearly 900 have already been separated by VRS, retirement etc; however, the company still has more than 1000 employees on its rolls for which it has found little productive use. The company plans to come out with one or more VRS schemes for reducing the surplus employee strength.

The turnover per employee has increased from Rs. 0.33 Mn in 1998-99 to Rs. 1.63 Mn in 2002-03.

Age profile of the employees as on 31.03.2003 is detailed in the following table:

Table 8 - Employee Age profile

Age Group	No of officers	No of workmen	Total	Percentage
Upto 40 years	471	235	706	12.9%
41 to 50 years	1123	1337	2460	44.9%
51 years & above	1731	584	2315	42.2%
Total	3325	2156	5481	100.00%

Source: ECIL/CRISIL

About 42% of the employees in the company are in the 51 years and above age bracket. This indicates that a large proportion of employees will be retiring in the next few years.

Given its predominant presence in defence and electronics, the only other company that can be used for comparison purposes is Bharat Electronics Limited. The following table provides a comparative profile of operating income and profit per employee:

Table 9 - Operating Income and Profit per employee (31.03.2002)

	ECIL	BEL
No of employees	5746	13572
PAT per employee (Rs in 1000s)	120.6	147.1
Net sales / employee (Rs in 1000s)	1036.4	1413.3

Source: CRISIL

Compared to BEL, ECIL's per unit employee performance, in terms of PAT and net sales, is lower as can be seen from the above table.

Selling Expenses

The selling expenses have reduced from 2.7% of operating income in 1998-99 to 2.0% in 2002-03 after rising to 6% of income in 2000-01. Overall CAGR of selling expense is 30% in the period, which is lower than the growth in operating income of 41%.

Table 10 - Selling Expenses

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03	CAGR
Selling expense	61.35	111.14	295.15	249.36	175.24	30.00%

Source: ECIL Annual Report/CRISIL

R&D Expenses

The R&D expenses have declined as a percentage of operating income over the past five years. The R&D expense was 2.9% of operating income in 1998-99

declining to 2.5% in 2002-03. However, the expenses have grown by a CAGR of 36% in absolute terms over the period, as shown in table 11:

Table 11 - R&D Expense

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03	CAGR
R&D Expense	64.79	91.95	127.73	135.88	221.58	36.0%

Source: ECIL Annual Report/CRISIL

ECIL undertakes R&D in all its major lines of business including Information Technology, Telecommunications, RF communications, Antennas, Automation & Control, Instrumentation, SCADA, Integrated security etc. In addition to R&D efforts on its own, ECIL also undertakes joint development works in association with R&D organizations like DRDO and BARC.

Manufacturing, Administration & Other Expenses

In absolute terms, other expenses have increased from Rs. 311.7 Mn to Rs. 419.4 Mn in the period 1998-99 to 2002-03 with a CAGR of 7.7% as table 12 shows. However, as percentage of operating income, such expenses declined during the period from 13.9% in 1998-99 to 4.7% in 2002-03.

Table 12 - Manufacturing, Administration & Other Expenses

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Power & Fuel	25.27	21.66	26.03	23.21	25.96
Water Charges	6.55	6.27	5.96	6.20	9.25
Repairs & Maintenance	21.98	22.45	23.64	25.12	35.63
Rent	10.62	10.32	9.96	9.35	12.78
Rates and Taxes	4.40	5.08	4.24	4.04	4.73
Insurance (Purchase, Vehicles &					
Others)	7.02	8.77	7.99	8.36	13.79
Printing & Stationery	. 4.16	6.31	8.96	11.84	9.28

...contd.

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Postage, Telegram, Telephone &					
Telex	25.45	24.06	22.66	22.09	17.08
Advertisement (Tender &					
Employment)	0.56	0.74	0.83	0.56	0.46
Travelling & Conveyance expenses	47.70	51.43	54.32	53.97	61.40
Vehicle Expenses	22.90	5.14	6.61	6.74	7.85
Directors' fees and travelling					
expenses	0.03	0.11	0.07	0.15	0.11
Auditors' fees and expenses	0.26	0.27	0.20	0.37	0.39
Other Miscellaneous Expenses	134.79	189.60	263.15	213.49	220.64
Total	311.69	352.21	434.62	385.47	419.36

Source: ECIL Annual Report/CRISIL

Operating Margin

The operating margins (ratio of OPBDIT to operating income) for the company have improved significantly from a negative 14.7% to a positive 15.6% in the period 1998-99 to 2002-03, as shown in the following table. In absolute terms, the operating profits have improved from negative Rs. 329.5 Mn to a positive Rs. 1390.3 Mn. The prime reason for this is the significant jump in performance of four divisions namely, Communications division, Instrumentation & systems division, Control and automation division, and Special products division which contribute to most of the profits of the company.

Table 13 - Operating margin

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
OPBDIT	-329.5	156.9	399.1	703.4	1,390.3
% of O.I.	-14.7%	4.0%	8.2%	11.8%	15.6%

Source: ECIL Annual Report/CRISIL

Interest Expenses

On account of current near zero-debt position, interest and finance charges as a % of operating income have been low for ECIL at around 0.4% in 2002-03, which is a significant reduction from 11.9% in 1998-99. The overall debt outstanding has come down from Rs 266 Mn to Rs. 37.3 Mn in the period, mainly on account of debt write off and interest waiver on the outstanding loans of Government of India, during the restructuring process, as shown in the following table:

Table 14 - Interest expenses

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Interest expenses	266.26	269.79	233.14	49.24	37.31
% of O.I.	11.9%	6.8%	4.8%	0.8%	0.4%

Source: ECIL Annual Report/CRISIL

Miscellaneous Income

Miscellaneous income as a percentage of operating income has increased from 2.7% in 1998-99 to 3.7% in 2002-03.

Tax

Improved profitability of the company has resulted in higher taxable income and consequently larger tax outgo, as shown in the following table:

Table 15 - Tax provisions

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Provision for Taxation	4.71	-1.23	2.83	100.48	214.58
Deferred tax Liability	0.00	0.00	0.00	0,00	58.67
Total Tax liability	4.71	-1.23	2.83	100.48	273.25

Source: ECIL Annual Report/ECIL

Net Profits

Increase in operating profits resulted in the turnaround of the company from a net loss (before tax) of Rs. 591.2 Mn in 1998-99 to a net profit before tax of Rs.805.8 Mn in 2002-03.

Post-tax profits increased correspondingly from negative Rs. 595.9 Mn in 1998-99 to Rs.532.5 Mn in 2002-03, as the following table would show. The profits in the year 2002-03 are subdued in comparison to the overall performance due to the significant provision towards wage revision arrears to the tune of Rs.825.7 Mn in 2002-03. These arrears are in respect of memorandum of settlements reached with the employees union and officers association for the period 01.01.97 to 31.12.2000.

Table 16 - Net Profit

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Profits after Interest	}				
and Deprecation but					
before Other Income					
& Tax (OPBT)	-591.2	-7.9	121.0	793.4	805.8
Tax	4.71	-1.23	2.83	100.48	273.25
Reported Profit (PAT)	-595.9	-6.7	118.1	692.9	532.5
Net Margin	-26.6%	-0.2%	2.4%	11.6%	6.0%

Source: ECIL Annual Report/CRISIL

Net Margins

The net margins as a % of operating income increased from negative 26.6% in 1998-99 to positive 11.6% in 2001-02 due to significant increase in operating margin. The net margin decreased to 6% in 2002-03 mainly due to the provisioning towards wage revision arrears as well as for taxation.

Balance Sheet

A summary of ECIL's balance sheets for the last five years has been shown in the following table:

Table 17 - Balance Sheet

(Rs Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Sources of Funds					
Shareholders' Funds	707.5	812.5	812.5	1,469.0	2,022.9
Capital	655.1	792.5	812.5	1,263.7	1,298.8
Share money pending allotment	47.4	20.0	0.0		
Reserves & Surplus	5.0	0.0	0.0	205.3	724.1
Deferred Tax Liability	0.0	0.0	0.0	0.0	0.0
Loan Funds	2,323.7	1,903.4	1,027.5	0.0	0.0
Secured Loans	964.1	855.0	185.2	0.0	0.0
Unsecured Loans	1,359.6	1,048.4	842.3	0.0	0.0
Total source of funds	3,031.3	2,715.9	1,840.0	1,469.0	2,022.9
Application of Funds					
Fixed Assets	494.8	513.5	543.4	555.2	716.0
Gross Block	1,470.6	1,523.9	1,575.8	1,497.9	1,664.2
Less: Depreciation	991.9	1,039.6	1,066.8	967.1	1,007.7
Net Block	478.7	484.3	509.0	530.8	656.5
Fixed assets in transit & capital					
work in Progress	16.1	29.2	34.4	24.4	59.6
Investments	14.1	14.1	16.5	16.5	16.5
Current Assets, Loans & Advances	4,001.1	4,515.5	4,065.4	5,908.8	7,148.7
Inventories	1,199.4	1,303.6	1,256.0	1,453.2	1,015.9
Sundry Debtors	1,387.0	1,958.8	1,986.5	1,668.1	3,134.4
Cash & Bank Balances	548.3	769.1	331.6	2,158.3	2,282.0

...contd.

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Interest accured on investments	0.0	0.1	0.0		
Loans & Advances	866.4	484.0	491.3	629.2	716.4
Less: Current Liabilites & Provision	2,108.4	2,961.7	3,290.0	5,019.4	5,793.3
Current Liabilities	1,941.8	2,711.9	3,103.9	4,770.2	5,126.2
Provisions	166.6	249.7	186.1	249.2	667.1
Net Current Assets	1,892.7	1,553.9	775.5	889.4	1,355.4
Miscellaneous Exp. (extent not					
written off)	25.5	28.8	17.0	7.9	6.2
Deferred Tax Liability	0.0	0.0	0.0	0.0	-71.1
Profit and loss account	604.1	605.7	487.6	0.0	0.0
Total	3,031.3	2,715.9	1,840.0	1,469.0	2,022.9

Source: ECIL Annual Report/CRISIL

Net Worth

ECIL has an authorised share capital of Rs. 1,500 Mn. Against this, the paid up share capital was Rs. 1,298.8 Mn as of March 31, 2003.

The company has been making profits since 2000-01 and had accumulated reserves of Rs. 724.1 Mn as on March 31, 2003, as shown in the following table:

Table 18 - Net Worth

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Authorised	900	1500	1500	1500	1500
(Equity Shares of Rs. 1000 each) Issued, Subscribed & paid up	655.1	792.5	812.5	1263.7	1298.8
(Equity Shares of Rs. 1000 each) Share money pending allotment	47.4	20.0	0.0		
Reserves & Surplus					
Capital Reserve	5.045	5.045	0.0	0.0	0.0

...contd.

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Profit on sale of investment	5.045	5.045	0.0	0.0	0.0
Investment Allowance Reserve					_
(Utilised) A/c	0.0	-5.05	0.0	0.0	0.0
As per last balance sheet	0.0	0.00	0.0	0.0	0.0
Less: Transfer to P & L	0.0	5.05	0.0	0.0	0.0
Surplus	,		•		
Balance in P & L	0.0	0.0	0.0	205.3	724.1
Reserves & Surplus - Total	5.05	0.0	0.0	205.3	724.1
Loss carried forward in the					
balance sheet	605.1	605.7	487.6	_	
Net Worth after adjusting for					
carried forward losses	103.5	206.8	324.9	1469.0	2022.9

Source: ECIL Annual Report/CRISIL

Total Debt

As on March 31, 2003, the company had a zero outstanding debt. It was a zero-debt company in 2001-02 also, whereas the company had an outstanding debt of Rs. 2323.73 Mn in the year 1998-99. This is mainly due to the write off of the outstanding debt by the Government of India during the restructuring process.

Fixed Assets

As the following table would show, the company's gross block as of March 31, 2003 (excluding assets-in-transit and capital WIP) was Rs. 1,664.2 Mn, whereas net fixed assets were Rs. 656.5 Mn. Fixed assets are stated at cost in the company's annual reports and the company has not undertaken any revaluation of assets. While considering any disinvestment, such assets must be revalued.

The capital expenditure undertaken by ECIL as a percentage of gross block was 7.5% in 2001-02 and 12.6% in 2002-03.

Table 19 - Gross Block

(Rs. Mn)

Assets	Gross Block (31.03.2003)	Depre. (31.03.2003)	Net Block (31.03.2003)
Land & Building	258.35	130.31	128.04
Plant & machinery	1105.49	688.99	416.50
Other Fixed assets	300.35	188.43	111.92
Total fixed assets	1664.192	1007.73	656.46

Source: ECIL Annual Report/CRISIL

Future investment plans are mostly for upgradation of technology and setting up of manufacturing and test facilities for different product lines. The investment plan envisages a total investment of Rs. 1465 Mn over the next five years funded from budgetary support by GoI and internal resources.

Investments

The book value of the company's investments was Rs. 16.4 Mn as on March 31, 2003. Investments in the shares of M/s ECIL-Rapiscan Ltd. and M/s. Andhra Pradesh Gas Power Corporation Limited, Hyderabad account for nearly 44.6% and 55.3% of the total investments respectively. The shares held in APGCPL are not freely transferable in view of the undertaking given to IDBI by the company as a promoter shareholder of APGCPL.

Current Assets

Inspite of a high growth in operating income, the company has managed to keep the inventory down. The inventory in absolute terms has come down from Rs. 1199.4 Mn in 1998-99 to Rs. 1016 Mn in 2002-03. Inventory as a percentage of sales has declined from a very high 53.6% to 11.4% during the same period. Out of this, redundant inventory amounting to Rs. 44.6 Mn on 31.03.1999 was written off as part of the restructuring plan approved by GoI.

Table 20 - Inventory

(Rs.Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Inventories					
Finished goods	107.87	130.39	105.86	144.56	65.13
WIP	465.70	0.00	0.00	0.00	. 0.00
Manufactured stock	3.02	569.43	619.25	835.02	387.64
Scrap	1.84	2.25	2.27	1.35	0.61
RM, assemblies & components	516.13	457.82	247.44	322.50	454.60
Stores & spares & packing materials	45.49	50.32	33.86	30.66	27.78
Stock of tools	3.37	3.62	2.43	2.37	. 2.96
Materials in transit	55.97	89.75	244.87	116.75	77.19
Total inventory	1,199.39	1,303.58	1,255.98	1,453.21	1,015.91
Inventory as % of Operating	,		1.		
Income	53.6%	32.9%	25.9%	24.4%	11.4%

Source: ECIL Annual Report/CRISIL

Sundry Debtors

The debtors have risen consistently from Rs.1387 Mn in 1998-99 to Rs. 3134 Mn in 2002-03 during the last five years, growing by a CAGR of 17%. However, level of sundry debtors as days operating income has come down from 226 to 128 days during the period.

Cash & Bank balance

A summary of the cash and bank balances has been given in the following table:

Table 21 - Cash & Bank balance

(Rs. Mn)

Cash & bank balance	1998-99	1999-00	2000-01	2001-02	2002-03
Cash Balance	277.04	176.40	18.55	617.18	1,529.63
Cash on hand	0.77	1.09	1.31	1.40	0.42
Imprest cash with offices	0.05	0.14	0.17	0.05	0.06
Cheques on hand / in transit	276.20	175.13	17.06	615.71	1,529.13
Stamps on hand	0.02	0.04	0.01	0.02	0.02
Bank balances with scheduled		-			
banks	271.27	592.67	313.10	1,541.10	752.40
Current account	41.91	29.67	90.22	94.42	253.67
Collection account	33.92	108.00	144.14	132.21	22.79
Remittances in transit	0.67	0.66	10.29	1.21	1.74
Fixed deposits	194.77	454.34	68.45	1,313.26	474.20
Total cash & Bank balance	548.31	769.07	331.65	2,158.28	2,282.03

Source: ECIL Annual Report/CRISIL

Cash available with the company has increased significantly from Rs. 548 Mn to Rs. 2282 Mn in the period 1998-99 to 2002-03.

Loans & Advances

The details of loans and advances made by the company are shown in the following table:

Table 22 - Loans & advances

(Rs. Mn)

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Advances considered good and fully					
secured	8.91	6.85	4.67	6.57	11.60
Advances unsecured-considered good	294.78	309.90	451.80	587.86	670.02

...contd.

Year	1998-99	1999-00	2000-01	2001-02	2002-03
Advances considered doubtful	21.86	29.79	29.38	19.71	21.61
Less: Provisions for advances considered doubtful	21.86	29.79	29.38	19.71	21.61
Amount recoverable from DoE	562.67	167.25	34.79	34.79	34.79
Total Loans & advances	866.36	484.00	491.26	629.22	716.41

Source: ECIL Annual Report/CRISIL

Current Liabilities & Provisions

The company's creditors as days of operating income works receipts decreased from 138 days in 1998-99 to 109 days in 2002-03. In absolute terms sundry creditors have shown an increase from Rs. 846 Mn in 1998-99 to Rs.2661 Mn in 2002-03. Advances received by ECIL have increased from Rs.780 Mn in 1998-99 to Rs. 1704 Mn in 2002-03, a CAGR of 21.6 %.

Future Investments and Funding Plan

Future investment plans are mostly for upgradation of technology and setting up of manufacturing and testing facilities for different product lines. The investment plan envisages a total investment of Rs. 1465 Mn over the next five years funded from budgetary support by Government and internal resources. Year wise investment plan and funding sources provided by the company is as follows:

Table 23 - Investment and funding plan

(Rs. Mn)

	2003 - 04	2004-05	2005-06	2006-07	2007-08	Total
Investment plan	220	340	340	285	280	1465
Funding plan						
Budgetary support						
from GoI (Equity)	70	90	90	85 .	80	334.9
Internal resources	150	. 250	250	200	200	900

Source: ECIL/CRISIL

SWOT ANALYSIS

Strengths

- Tie up with research organisations in defence and nuclear domain (DRDO, NRCIL etc)
- Through its linkages with research organisations and concurrent engineering, ECIL enjoys market dominance in many of its defence and nuclear products like Electronic fuse products, EVMs, Radio communication products, etc.
- The company's client list primarily comprises public sector and government clients.
- The company is focussing on low volume high technology items where the competition is less, and the company also enjoys the sole supplier status on account of research spin offs for many strategic requirements in this area.
- Healthy balance sheet the company is a zero debt company, partly due to restructuring and write off of governmental loans and also through improvement in business performance.

Weaknesses

- The company currently has a surplus strength of about 1000 employees, out of the 2000 people rendered surplus when it closed down its hardware manufacturing business. The company has not been able to separate these employees from its rolls till now.
- Out of 15 revenue-earning divisions in 2002-03, only seven divisions contributing to profits and eight divisions to losses.
- High dependence on defence and nuclear sectors for more than 60% of revenues and most of the profits.
- The company's ability to face significant competition in its businesses is doubtful. It has exited out of consumer electronics and computer hardware manufacturing business where it could not compete effectively with the private sector.

Opportunities

- Electronics and IT sector is the fastest growing segment of the Indian industry. The company can utilise its broad skill base and presence across different segments of the industry to grow at a fast pace.
- The company can use its public sector status to extend its tie up with other defence and nuclear research labs and organisations and commercially exploit the research outputs.

Threats

- Considerable dependence on Government for revenues and profits. Government business moving to private players or decline in such business can pose a significant threat for the company.
- Significant proportion of the work force (42%) of the company is in the 51 years plus age bracket. The company may lose this intellectual capital in the next few years as they attain superannuation, unless effectively replaced by similarly skilled people.
- The company being a supplier of strategic equipment for nuclear research and defence, there is a constant danger of it coming under the banned entity status, barring it from accessing certain technologies that it may require from time to time.

Overall, the company should continue to get the defence and nuclear businesses and there is no foreseeable threat from competition in this segment, primarily on account of nature of business and the process for defence and strategic businesses being followed currently. However, the company had in the past found it difficult to match its competitors' product offerings / skills set and positioning in the consumer electronics segment.

COMPANY ASSESSMENT

Market Assessment

Overall, electronics hardware industry has been growing at a CAGR of 10% in the last five years. Within the industry, Strategic Electronics segment has grown at a CAGR of 14.70%. This provides ECIL with immense potential for growth. Further, its strategic tie-ups with defence and other research organizations give it an edge over others in developing and selling high technology products.

Operational Assessment

ECIL's current client mix predominantly consists of government/PSU entities. Its sales to private sector are almost negligible. The company, in the past, had been an active player in the consumer electronics and computer hardware high volume, low technology items. However, the company could not compete with the private sector players and since then it has withdrawn from this business. A businesswise analysis reveals that it has not been able to compete effectively in the areas like computer hardware and networking, software consultancy and computer education, and has been incurring losses in these businesses. Therefore, the company needs to demonstrate its skill set and ability to deliver quality output on time to private clients.

The company has now shifted focus on low volume, high technology items, where it faces significantly lower competition and gets a part of its business through concurrent engineering of the research work undertaken by various government research agencies.

Sales to Election Commission of Election Voting Machines (EVM) have contributed significantly to the overall profit of the company in the last few years, with sales of Rs. 930 Mn recorded in the year 2002-03. The production of EVMs is shared between BEL and ECIL on a 50:50 ratio. However, this business is expected to come down from 2004-05 onwards, by which time sufficient EVMs will be available to take care of nationwide election requirement.

The company's plant is located at Hyderabad, and all its manufacturing, R&D and testing facilities are located at the same site. Multiple divisions share the facilities. Similarly, execution of projects requires multi-disciplinary skills set of different divisions.

The company's diverse businesses can be grouped together under the following three broad categories :

Group 1	Group 2	Group 3
Defense domain	IT & Telecom Group	Control and instrumentation and Nuclear domain
Strategic Electronics division (SED)	Telecom Division (TCD)	SCADA
Special Products division (SPD)	Customer Service division (CSD)	Control & Automation division (CAD)
Communications division (CND)	Business system division (BSD)	Industrial control and Consumer electronics (ICD)
Servo System division (SSD)	Computer Education division (CED)	Instrument and system division (ISD)
Antenna Products division (APD)	Software & Consultancy division (SCD)	Component division (CD)

The company has done fairly well in defence, control & instrumentation, and nuclear domain. In most of these divisions, ECIL mainly caters to the high technology low volume business and specialized requirements of defence, nuclear, security and other sensitive sectors. These businesses are characterized by little domestic competition with a good part of the business being awarded directly to ECIL on a concurrent engineering (cost plus) basis.

The company is, however, not doing well in the more competitive markets of telecom, hardware and software. It has been incurring losses in most of these divisions.

Financial Assessment

The company went through a restructuring process starting 1999-00, wherein GoI wrote off the various loans and interest outstanding on the company at that time. Since then the company's financial position has improved significantly and it does not have any debt on its books as on date. The company has a cash reserves to the tune of Rs. 2282 Mn at the end of 2002-03.

Employee Assessment

After the company closed down some of its hardware manufacturing business, about 2000 people were rendered surplus. Out of them nearly 900 people have already been separated by VRS, retirement etc. However, the company still has more than 1000 employees on its rolls for which it has found little productive use. The company needs to suitably evaluate ways and means of separating the surplus employees, which would otherwise continue to be a drain on company's finances.

Restructuring

In the year 1998 – 99 the company incurred a loss of Rs. 595 Mn due to a number of adverse factors affecting operations of the company, and its net worth without adjusting for carried forward losses stood at Rs.707 Mn. However, after adjusting for the carried forward losses of Rs.604 Mn, the net worth was only Rs.103 Mn, leading to its referral to BIFR. The company then sought assistance from the Government of India to tide over the crisis. Following packages of assistance were provided by GoI:

First Stage restructuring

- Write off of loans from Department of Electronics and Department of Atomic Energy including interest and penal interest thereon (as on 31.03.1999) amounting to Rs. 718.7 Mn.
- Write off of redundant inventories amounting to Rs. 44.6 Mn.
- Write off of interest free government loan provided during 1998-99 for prepayment of US Exim bank loan amounting to Rs. 150 Mn.
- Write off of government guarantee fee relating to US Exim bank loan.
- Grant for settlement of creditors & other liabilities.
- Reimbursement of payment made by ECIL to US Exim bank out of its own resources.

 Reimbursement of income tax and interest on income tax on technical knowhow fee.

The proposal for first stage of restructuring was initiated on 28.12.1999. Government approval for the proposal was obtained on 12.06.2000 and the benefits were received during 2000.

Second Stage restructuring

- Conversion of outstanding GoI loans into equity amounting to Rs. 450 Mn.
- Waiver of interest on Gol loans accrued during the years 1995-96 to 1999-2000 amounting to Rs. 160 Mn.
- Waiver of penalties levied by Ministry of Defence on ECIL in the form of liquidated damages, price reduction and interest on advances and make good to ECIL the amounts already recovered as a one-time concession.
- Waiver of penalties levied by Ministry of Telecommunications on ECIL in the form of liquidated damages, price reduction and interest on advances and make good to ECIL the amounts already recovered as a one-time concession.
- A VRS / NRF grant that was utilized by the company for separating 2100 employees during the period 1993-94 to 2001-02.
- Transfer of ownership to ECIL of the land on which the factory is located at Hyderabad and Zonal Office is located in Mumbai.

The proposal for second stage of restructuring was initiated on 10.7.2001. Government approval of the proposal was obtained on 10.01.2002. Benefits for conversion of outstanding GoI loans into equity and waiver of interest on GoI loans referred to above were received in 2001-02 and benefits for waiver of penalties levied by Ministry of Defence and waiver of penalties levied by Ministry of Telecommunications were received in 2002-03. Transfer of land is still under process.

DISINVESTMENT CONSIDERATIONS

ECIL was originally set up to create a strong indigenous base for electronics in the country. ECIL has been actively engaged in defence and nuclear domains through its tie up with the country's premier research organizations.

The company derives about 60% of its revenue from the strategically important defence and nuclear sectors. ECIL has broad skill base in the Electronics and IT sectors encompassing control & instrumentation, communications, computers & information technology, telecommunications products and various other special products for specific applications in nuclear, defence and security fields.

Currently, the company primarily operates in the high technology, low volume business. The company has exited out of consumer electronics and computer hardware manufacturing business, where it could not match the severe competition from the private sector in these areas.

The company mainly serves government sector clients, from whom it gets business in two ways:

- Concurrent Engineering (Development & Productization, in parallel):
 - Most of the work comes from DRDO
 - Apex Committee usually decides about the place from where the equipment items would be taken
 - ECIL gets a margin for its work

ECIL faces competition from BEL, international companies and some domestic companies in bid projects.

Inspite of economic liberalization (started in 1991), the country continues to believe in self-reliance in strategic areas. Self-reliance in today's context means the ability to withstand technology denials by the industrially advanced nations of the world. An assessment of the current international scenario suggests that no such nation would be willing to supply control & instrumentation packages to Nuclear Power Corporation of India Limited (NPCIL) due to various techno-

political reasons. The need for self-sufficiency in respect of the control and instrumentation is critical for supporting the nation's nuclear programme. This was foreseen long back and ECIL was accordingly set up within the ambit of Department of Atomic Energy in 1967.

The company handles a very diverse nature of businesses in the electronics sector, and no single company may be interested in the entire spectrum of businesses conducted by ECIL.

Many defence projects are directly awarded to ECIL based on its core competencies as assessed by the apex committee in defence ministry. A part of this work involves handling data and information which are considered to be sensitive and confidential in nature.

Restructuring of divisions

The Commission, based on the analysis of ECIL's performance and potential, feels that ECIL should completely exit out of high volume low technology business, where competition is intense and the divisions are not doing too well and concentrate on strategic business only. Along these lines, the company may look forward to exiting out of following non-value adding commercial businesses where private sector provides significant competition:

Division	Areas of presence	Employee strength (as on 31.03.2003)	Sales (2002-03 Rs in Mn)	Divisional PBT (2002-03 Rs in Mn)
Business Systems Division	Computer hardware and large N/W systems	931	138.2	-100.6
Telecom Division	Telecom Products	,	635	-8.8
Customer Services Division*	Services for BCD and TCD		459.2	45.7
Industrial Control and Consumer Electronics Division	Assembly services to CAD	307	2	-67.2

...contd.

Division	Areas of presence	Employee strength (as on 31.03.2003)	Sales (2002-03 Rs in Mn)	Divisional PBT (2002-03 Rs in Mn)
Software Consultancy Division	Software and consultancy services	68	28.4	-26.4
Computer Education Division	IT education services	52	80.2	-35.2
	Total	1358	1343	-192.5

^{*} Customer Services Division is a customer support division and provides services mainly for the products of BSD and TCD.

Source: CRISIL

The closure/winding up of these divisions needs to be carried out in a time bound manner. All skills set present and available in these divisions should be identified and any skills required for execution of assignments in other divisions may be retained / transferred to the respective divisions. However, possibilities of outsourcing of such skills from the market can also be evaluated during the exercise. The exit programme should take into account the existing commitments to the customers.

The company should also critically examine the need for continuing with another division, viz. SCADA. The division has been incurring losses in the last couple of years. Private sector presence is significant in this business and in the absence of effective competitive standing of ECIL, it may have to critically analyse the continuity of the division in its present form.

ECIL should intensely concentrate on the tasks that are essential for the country in the strategic domains in close partnership with BARC, DRDO and the Department of Space.

Workforce restructuring

As indicated earlier, out of total employee strength of 5481 in the year 2002-03, the company still has more than 1000 employees on its rolls for which it has found little productive use. The company should take effective steps to separate

this unproductive work force at the earliest. It appears that there is no need for such large number of marketing personnel in the company.

In addition, surplus employees are also present in other divisions. Further, a winding up of divisions mentioned earlier will also render more employees surplus. According to the preliminary estimate, a total of about 1800 - 2000 employees may be rendered surplus as a result of a company wide restructuring process. In this regard, a detailed man power assessment and skill set assessment study will be required to arrive at the exact size of manpower and skills set required by the company post-restructuring.

Partial return of Government investments

Government has provided lot of money to ECIL in its more than 35 years of existence. However, at the same time, ECIL has not provided significant returns to the government in the form of dividends.

It is suggested that before divesting a part of the government equity in the company, a proper valuation should be carried out. The company has a huge cash and bank balance of Rs.2282 Mn as on 31st March, 2003. A part of this cash (Rs.927 Mn) is locked up in funding current liabilities. Some part of this cash will be required by ECIL for funding future investment plans and normal operations. It is estimated that ECIL will have a net cash surplus of about Rs.800 Mn, which can be utilised to pay back the government a special one-time dividend.

ECIL and **BEL**

ECIL and BEL show some synergies in their business models. Both the companies derive a significant portion of their business from defence. The two companies have also been collaborating for various projects in the defence sector. EVMs were also produced by BEL and ECIL together. The companies also compete for various electronics products like radio communication products, VSAT networks, antenna products and other defence sector products. A brief snapshot of the two companies for the year 2001-02 is indicated below:

	ECIL	BEL
No. of employees	5746	13572
Net sales (Rs. in Mn)	692.9	1996.8
PAT (Rs. in Mn)	5954.9	19181

Source: CRISIL

Nevertheless, the possibility of merger of ECIL into BEL may not be quite feasible because of following reasons:

- ECIL and BEL are under the administrative control of the Department of Atomic Energy and Ministry of Defence respectively. DAE may not like to part with direct control of ECIL for the reason that strong linkage exists between ECIL and BARC and that synergy between ECIL and BARC may get diminished.
- On account of single location with shared manufacturing facilities, it may not be quite feasible to separate or demerge the defence part of ECIL for merger with BEL.
- Both the companies primarily serve strategic sector, meeting critical defence requirements. Government may like to keep different sources for meeting its requirements to ensure multiple channels for sourcing.

RECOMMENDATIONS

As discussed earlier, for a variety of reasons, it may not be desirable to cede management control of ECIL in favour of a private strategic partner at this stage. At the same time, in its more than 35 years of existence, ECIL has not provided satisfactory financial returns to the Government in the form of dividends. The performance and accountability within the company needs to be improved under the current set up, to ensure that in spite of Government management control, the company's performance reflects sound commercial principles.

Based on the analyses above, the Commission recommends the following course of action:

- 1. Although ECIL should continue as a Government company for some more time, the board of directors should be broad based for better corporate governance, by inducting professionally competent independent directors. The company should implement, in particular, the recommendation made by the Naresh Chandra Committee on 'Audit and Corporate Governance', to help strengthen the corporate governance set up and bring transparency in the internal workings of the company.
- 2. ECIL should immediately and completely exit out of high volume, low technology business where private sector competition exists and concentrate on strategic, low-volume high technology areas. Concurrently, organisational restructuring and manpower rationalisation should be undertaken, as suggested earlier.
- 3. However, with a view to ensuring public accountability, government should immediately divest a portion of its equity by way of initial public offering. This will ensure greater external scrutiny of company performance. In respect of such public offering, a similar model, as in the case of BEL, can be followed where Government owns about 76% of the equity and the remaining 24% is held by the public. Since the government has, in the past, provided substantial fund to ECIL for the purpose of restructuring etc., a portion of ECIL's surplus cash should be withdrawn by government before disinvestment. At the time of disinvestment, ECIL should obtain necessary exemption from government so that it is not obliged to disclose confidential and sensitive information to the public.
- 4. The possibility of further disinvestment of GoI equity in ECIL, leading eventually to its privatisation, should be considered after a period of five years, based on a thorough assessment of ECIL's role and achievement, external environment in terms of access to technology in critical and strategic areas, and progress of private sector participation/privatisation in the field of nuclear power generation.

* * * * *

2.2 ENNORE PORT LIMITED (EPL)

INTRODUCTION

Ennore Port Limited (EPL) was incorporated in 1999 and commenced commercial operation in June, 2001. Currently functioning under the administrative control of the Ministry of Shipping (MoS), Government of India (GoI), EPL is in the service industry and provides facilities for berthing of ships and handling of cargo (loading and unloading).

EPL was conceived as a part of the North Chennai Thermal Power station (NCTPS), as per a study carried out in 1986, according to which the port was planned for unloading of coal by coastal shipping from Paradip port to meet the requirements of power plants of NCTPS. Prior to commissioning of EPL, the coal currently being handled by EPL was handled through Chennai Port. The pollution and environmental hazards caused while handling coal in Chennai port and transporting it through the city necessitated shifting of coal handling from Chennai Port. Hence, EPL was developed as a satellite port to Chennai Port and Chennai Port Trust (ChPT) was the implementing agency for the development of the port. The construction of the port was funded by GoI and ChPT. The project cost at completion was estimated at Rs.9,346 Mn. Unlike the other eleven major ports in the country, which are administered by Port Trusts constituted under the Major Port Trust Act, 1963 (MPTA), Ennore Port is the first corporatised major port in the country, administered by a company registered under The Companies Act, 1956. The take over of the assets and liabilities relating to the project, from ChPT, was completed on March 30, 2002.

EPL operates on the landlord concept of port operations and most of its services are outsourced. The marine access infrastructure has been constructed with a long term vision and has the capacity to accommodate 22 berths. Currently, only two berths are operational. They handle coal for Tamilnadu Electricity Board (TNEB) for its power plants located at Chennai, Ennore and Mettur. TNEB is the sole customer of EPL.

The ownership pattern of EPL as on March 31, 2003, is shown below:

Sr. No.		No. of equity	Nominal value of	
_	Shareholders	shares held (Mn)*	Shares (Rs.Mn)	
1	President of India	200	2000	
2	Board of Trustees, Chennai Port Trust	100	1000	
	Total	300	3000	

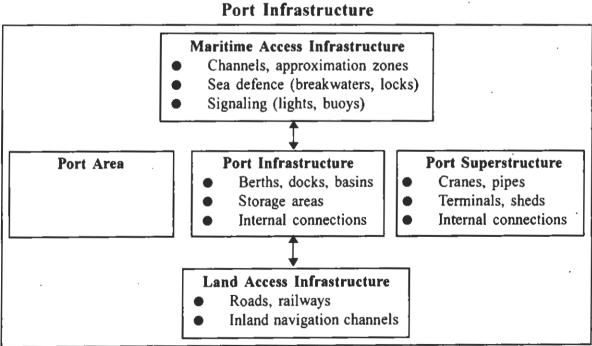
^{*}Face value of Rs.10 each

Source: EPL/Credit Analysis & Research Ltd. (CARE)

Thus, GoI holds 66.7 % of the equity capital of EPL with the balance (33.3%) being held by ChPT.

The company is headed by a Chairman-cum-Managing Director and has two full-time directors. The other five part-time directors are: a representative each from GoI and ChPT, an expert in port matters, a representative of trade and industry and an expert in financial matters.

The following figure shows the different types of important infrastructure required in a Port:



Source: CARE

Sophisticated information technology systems are employed by modern ports for smooth co-ordination between port users and the various entities functioning at the port.

Port services

For optimal utilization of the basic infrastructure mentioned above, a number of service providers are active in any port. The following figure summarises the various services provided in ports.

Port services

Berthing services	Pilotage, Towing, Anchoring
Cargo handling	Stevedoring, Storage, Cold storage
Consignees	Paperwork for ships and cargo, Permits (sanitary, customs, etc), Service hiring
Ancillary services	Supplies, Repairs, Cleaning, Refuse collection, Safety

As the activities mentioned above are a disparate lot, many categories of service providers belonging to the private sector have been active in ports from early days.

Government Agencies

Several government departments such as Customs, Emigration, Health, Agriculture, Fisheries, Consumer protection, Transport, Navy, Security, etc, usually have a presence at ports. For smooth functioning of any port, co-ordination between multiple service providers and government agencies, as mentioned above, is crucial.

In most ports, the function of co-ordination between the service providers and government agencies is performed by the Port authority.

Types of Port Authorities

Port authorities are diversified in the ownership pattern and functions performed by them. The Port authority may be a state, municipal, public or a private sector body. Ports may be broadly classified into three categories: land lord port, tool port, and service (operating) port based on the functions performed by the Port authority. The following table summarises the functions carried out by Port authorities under the respective models of port operation and management:

Port Authorities

Function	Landlord	Tool	Service
Ownership and provision of basic infrastructure (maritime access infrastructure, land access infrastructure, internal connections, storage areas etc,.) and compliances with Regulatory requirements	Port authority	Port authority	Port authority
Superstructure development, (cargo handling equipment, sheds, etc.)	Private parties	Port authority	Port authority
Port services	Private parties	Private parties	Port authority
Countries where the model is most prevalent	Europe, U.S., China, Malaysia, etc.	Japan, Korea, Latin American countries, etc.	India (major ports), U.K., Singapore.

Source: CARE

In the landlord model, the Port authority provides the basic infrastructure and normally grants short or long term leases or concessions to private parties for installation and provision of remaining facilities to users. In the tool model, in addition to the basic infrastructure, the Port authority also provides the superstructure and leases them to other enterprises normally on a short term basis. Port authorities in the service model, in addition to providing the basic infrastructure and superstructure, also undertake most of the functions in ports. The landlord model is the emerging mode of port operation.

Ownership Pattern

The pattern of ownership of Port authorities and the nature of functions performed by them have been changing over the years in line with the development of local industry/trade and changing philosophy of governments regarding involvement of private sector in port operations. The following figure gives a brief description of ownership pattern of Port authorities in some leading littoral countries:

Ownership Pattern of Port authorities Worldwide

Country/Continent	Ownership
Europe	
Cyprus, Spain, Greece, Italy, Malta, Portugal	National government
Germany, Belgium, Denmark, Netherlands, Sweden, Finland	Municipal or Territorial authority
United Kingdom	Private sector
U.S.A.	State/local authorities Further, captive ports and few privately owned and operated ports are also present.
Canada	Major ports are governed and managed by federal port authorities. Divestment of many smaller ports to non-federal public and private entities has been carried out.
China	Local/provincial government. The restructuring of port ownership into public shareholding systems and the separation of ports' regulatory and commercial functions are being initiated in some ports.

Source: CARE

From the above, it may be seen that the process of decentralization is in progress across the globe with local governments playing an increasing role in ownership of ports and private ownership is emerging in some countries. In fact, in United Kingdom, majority of the Port authorities is in the private sector. However, the Port authority in many countries is still a public sector entity.

Future Role of Port Authority

In principle, the role of Port authorities should be exclusively confined to the provision of basic infrastructure and the co-ordination of port services. However,

where infusion of private operators may lead to threat of monopoly, the regulation of the tariffs that private operators levy the port users may also be undertaken by the Port authority.

Some port facilities have been traditionally regarded as public goods (lights, access channels, etc) and are considered as natural monopolies. Since a port is a gateway to international trade, monopolistic control over port facilities can often result in high transaction cost for the nation's exim trade. It is, therefore, desirable that ports are run on commercial basis so that improvement in efficiencies resulting from competition accrues to the nation's exim trade. Suitable safeguards may be incorporated in various agreements between state and Port authorities to ensure that Port authorities do not misuse their unique position.

The growing involvement of private operators in ports/terminals has led to increased competition for cargo/traffic between ports/terminals. Further, consolidation of shipping lines has also led to increased bargaining power of shipping lines vis-à-vis port/terminal operators for efficient services. This has increased the significance of marketing of port services. The shipping lines, being carrier of cargo have an inherent advantage and are increasingly involving themselves in terminal operations. Further, specialised terminal operators also have emerged.

From the above, it may be seen that coordinated functioning of many agencies is essential for successful functioning of any port. But that alone is insufficient, as the flow of revenue generating cargo depends on local industry and trade. For successful operation of any port, active involvement of the local industry/trade bodies is essential and they are expected to play an active role in setting up and operation of ports. The proximity/hinterland connectivity to the source of natural resources or manufacturing base of items being exported or the proximity/hinterland connectivity to sources of consumption for imports is of paramount importance for location of a port. Further, port operator has to be an entity that can draw cargo to the port. This is validated by the active interest shown by shipping lines in managing terminals and the increasing consolidation taking place between terminal operators and shipping lines. In essence, commercial viability of port will depend not only on the efficiency of port operations and its locational advantages but also on the ability of port operators to attract shipping lines (cargo) to the port.

Regulatory Framework

A modern day port is a logistics hub. The day-to-day operations of a port require compliance with a number of laws regarding floating vessels, cargo operations, imports and exports, customs and emigration, marine activities, labour, environment etc. Further, issues of tariff regulation, safety and conservation of ports, quality of services offered to port users, growing role of private sector in the sector have to be addressed by a proper regulatory framework. While dealing with such issues at local or national level, it is imperative that international practices and conventions, especially those adopted by the International Maritime Organisation, are kept in mind.

The principal legislations governing Indian ports are The Indian Ports Act, 1908 (IPA) and the Major Port Trusts Act, 1963 (MPTA). IPA defines the jurisdiction of Central and State governments over ports. The major ports are placed under the Union list of the Indian Constitution, and are administered under IPA and MPTA by MoS. Minor ports are placed in the Concurrent list of the Constitution and are administered under the IPA. Such ports fall under the administrative jurisdiction of respective state governments. At the state level, the department in charge of ports or the State Maritime Board is responsible for the management and the development of these ports. Maritime Boards have so far been constituted only in the states of Gujarat, Maharashtra and Tamil Nadu.

The Indian Ports Act, 1908 (IPA)

IPA extends to major ports as well as ports under the control of the state governments as mentioned in the first schedule of the Act and to such parts of the navigable rivers and channels leading to those ports. It regulates matters pertaining to the administration of port dues, pilotage fees and other charges.

The Act, inter alia, empowers the government to make rules for:

- the time, speed and conditions in which, vessels, may enter, leave or be moved in any port;
- regulating the berths, stations and anchorages to be occupied by vessels;

- the removal or proper hanging or placing of anchors, spars and other things being in or attached to vessels;
- regulating vessels whilst taking-in or discharging passengers, ballast or cargo;
- for keeping free passages of such width as may be deemed necessary within any such port and along or near to the piers, jetties, landing-places, wharves, quays, docks moorings and other works;
- regulating the anchoring, fastening, mooring and un-mooring of vessels;
 and
- regulating the use of piers, jetties, landing places, wharves, quays, warehouses and sheds when belonging to the government;

The focus of various provisions of the Act is on operational aspects of functioning of the port, safety of shipping and the conservation of ports.

The Major Port Trusts Act, 1963 (MPTA)

MPTA provides for the constitution of Port authorities for certain major ports in India and vesting the administration, control and management of such ports in such authorities.

The Act is applicable to 11 out of 12 major ports in the country. Unlike the other 11 major ports, Ennore Port is a corporatised port, administered under the Companies Act, 1956 and falls outside the purview of MPTA.

The MPTA, inter alia,

- empowers Central Government (CG) to constitute a Board of Trustees for each Port;
- provides that all property, assets and funds of the port vested with CG, shall vest in the Board;
- empowers the Board to execute such works within or without the limits of the port and provide such appliances as it may deem necessary or expedient;

- empowers CG in the public interest to permit certain specified vessels or classes of vessels to discharge or ship goods or certain specified goods or classes of goods, at such place in a port or within the port approaches;
- provides for constitution and incorporation of The Tariff Authority for Major Ports (TAMP);
- empowers the Board to raise loans with the previous sanction of CG;
- includes provisions for accounting of receipt and expenditure of money receivable by the Board; and
- provides that before such commencement of work, the estimated cost of which exceeds a sum fixed by CG the sanction of CG shall be obtained;

The Act also requires the Board to submit a detailed report of the administration of the port and statements of income and expenditure to CG.

Tariff Authority for Major Ports (TAMP)

As private terminal operators were allowed entry into the major ports to provide services often in competition with that provided by Port Trusts themselves, there was a demand from the private sector for an independent regulator to set port tariffs in order to ensure that there was no unfair competition. MPTA was amended in April 1997 to constitute TAMP, to regulate all tariffs and rates for lease of properties in respect of major ports and the private operators located therein. TAMP has no jurisdiction over minor ports or private ports. Further, since Ennore Port falls outside the purview of MPTA, it is also not covered under the jurisdiction of TAMP. MPTA provides that while fixing tariffs, the conditions under which the service to be rendered can be prescribed by TAMP.

The Major Port Trusts (Amendment) Bill, 2001

As it was felt that the current functioning of major ports under MPTA does not provide them with the flexibility required to function in a competitive scenario, proposals are under consideration for corporatisation of other major ports. The Major Port Trust (Amendment) Bill, 2001 containing an enabling provision has been introduced in the Parliament. The salient provisions of the Bill are:

- to authorise CG to transfer the undertaking of any major port to its successor company and transfer the assets and liabilities of the Board of Trustees of a major port to such successor company and to define scope of the transfer. It is proposed that all assets and liabilities of the Board of Trustees, except land and waterfront shall be transferred to the successor company. The land and waterfront shall continue to be vested in CG, which will give the land on lease to the successor companies;
- to make enabling provisions for allotment of shares by the successor company to CG;
- to make enabling provision for making certain payment by CG to the successor company in lieu of allotment of shares and vesting of land and waterfront;
- the licenses, permits, quotas and benefits granted to the Board of Trustees shall be deemed to have been granted to the successor company;
- any guarantee given for or in favour of the Board of Trustees shall continue to be operative in relation to the successor company;
- to grant exemption to the successor companies from payment of any transfer or capital gains tax; and
- to make certain provisions of the IPA applicable to the major ports.

INDUSTRY RÉVIEW

International seaborne trade

Fifty percent by value of world merchandise trade and seventy percent in volume terms are carried by sea. The seaborne trade has grown at a Compounded Annual Rate of Growth (CARG) of 4% during the last decade. But, the overall seaborne trade (goods loaded) at 5.83 billion tons in 2001, declined by 1% compared to 2000, reflecting the slowdown in the growth of world economic activity. Cargo composition in terms of tonnage for world seaborne trade is as follows:

- Petroleum, Oil and Lubricant (POL) products 36%;
- Coal 10%;

- Iron ore 8%;
- Grain 4%; and
- Other cargo 42%.

The majority of 'other cargo' is increasingly being carried in containers along liner trade routes. Some estimates put the share of containerised cargo at around 11% of total seaborne trade.

Recent Trends

Container traffic has grown at a CARG of 10% as compared to 4% for world seaborne trade for the period 1990-2001. Globally, according to some experts, containerisation is expected to grow at 6% in the next 10 years, and the Asian traffic (for containers) at 8-10%. Containerisation has led to cost reductions in cargo handling, but ports have been compelled to invest in new equipment (gantry cranes, specialized terminals, improved pavements, etc). Further, economies of scale obtained by the transport of large quantities of containers and bulk cargoes have led to the building of increasingly larger specialized ships. This also requires substantial investments in port infrastructure. Use of containers and shift to larger vessels have made possible the use of hub-and-spoke route structure of shipping. This has led to increased transshipment and competition among leading container terminals. Traffic is dominated by large efficient container terminals that are able to meet tight schedules and low turnaround times. Top ten container terminals handled around 40% of the total container traffic for the year 2000. The profound changes in maritime transport have altered the balance between capital and labor at ports. Ports are now increasingly becoming capital-intensive, while in the past they used to be labor-intensive. This change has led to the problem of excess labor in many ports around the world. The need for higher investments and tighter public budgets and increasing fiscal needs have led many countries to seek private participation in ports. Private Sector Participation (PSP) in ports has been extended to construction of port infrastructure from the provision of services. Demand for higher efficiency and door-to-door logistics is increasingly leading to rising competition between ports to attract cargo.

India's maritime trade

India's maritime trade comprises export-import trade in various bulk commodities like crude oil and other petroleum products, iron ore and coal, besides general purpose cargo. India's oversea trade in terms of value stands at around 0.8% of the total world trade. The country has 5,560 km. long coastline, strategically located on the crucial East-West trade route, which links Europe and Far East. There are 12 major ports and 184 minor/intermediate ports which service the Indian coastline. According to provisional figures, major ports handled about 76% (313 Mn Metric Tons) of India's port traffic while minor ports handled the balance (96 Mn MT) in 2002-03.

Government's adoption of trade liberalizing measures since 1991 and globalisation, particularly, have produced significant increase in cargo traffic through Indian ports during the last decade. The following table shows the trend in traffic handled at Indian ports for the period 1950-51 to 2002-03:

Table 1 - Indian Ports - traffic growth

(Mn MT)

Period	Tr	affic hand	led	De	cennial CA	RG
	Major	Minor	Total	Total	Major	Minor
2002-03@	313	96	408			
2001-02	288	98	386			
2000-01	281	87	368	9	7	25
1990-91	152	11	163	7	.7	6
1980-81	80	7	87	4	4	0
1970-71	56	7	62	7	6	
1960-61	33		33	6	6	
1950-51	19	— -	19			

[@] Provisional

Source: Credit Analysis & Research Ltd.(CARE)

Traffic handled by Indian ports recorded a CARG of around 9.5% for the last decade. The CARG achieved in traffic handled at major ports over the last decade was 7%, while that for minor ports was 25%.

Major Ports

The following table shows year of commencement, installed capacity as on March 31, 2002 and traffic handled in 2002-03 for major ports:

Table 2 - Major Ports - traffic handled for 2002-03

(Mn MT)

Ports	Year of	Installed capacity	Total Traffic
	commencement	as on March	handled for
		31, 2002	2002-03 (@)
Kolkata Port	1870	9.20	7.20
Haldia Dock Complex (HDC)^	1977	32.40	28.55
Mumbai Port	1875	37.50	26.77
Chennai Port	1881	27.87	33.69
Vishakapatnam Port	1933	36.20	46.01
Kandla Port	1955	41.00	40.63
Mormugao Port*	1888	19.98	23.65
Paradip Port	1966 -	37.45	23.90
Kochi Port	1928	14.40	13.00
New Mangalore Port	1974	28.45	21.43
Tuticorin Port	1974	14.95	13.29
Jawaharlal Nehru Port (JNP)	1989	29.00	26.84
Ennore Port	2001	16.00	8.49
Total	;	344.40	313.45

[^] Haldia Dock Complex was developed as a satellite port by Kolkata Port Trust and is a part of Kolkata Port Trust

Source: CARE .

^{*}The port was declared as a major port after liberation of Goa from Portuguese rule in 1963.

[@] Provisional figures

The installed capacity of all major ports as on March 31, 2002 stood at 344.40 Mn MT and Capacity utilisation for the year 2001-02 stood at 83.5%. Ever since the beginning of planning era, expansion of port capacity has been an important target to facilitate handling of increasing volume of traffic. There has been progressive development towards capacity building during the past decade or so.

Capacity addition of 124.85 Mn MT was achieved during the Ninth Plan period, by projects executed by the ports (92.35 Mn. MT) and those taken up under Build Operate and Transfer (BOT) schemes and with private sector investment (32.5 Mn. MT). The capacity addition by major ports was mainly due to the construction of Ennore port (16 Mn MT) as the 12th major port and creation of mechanised coal handling facilities at Paradip port (20 Mn. MT). Further, a greater part of capacity addition was for handling of POL products (around 28 Mn. MT). The private sector capacity addition was mainly in creation of container terminals and captive jetties and berths by oil companies.

Traffic handled at Major ports

The traffic handled at major ports has shown an impressive growth since 1991-92 as the following table would illustrate:

Table 3 - Commodity-wise traffic at major ports

(Mn. MT)

Year	POL &	Iron	Fertiliser	Coal	Cont	ainer	Other	Total
	its products	ore				Mn** TEU	cargo	
2002-03*	109.52	50.63	8.55	47.94	43.65	3.30	53.17	313.45
2001-02	103.31	45.70	9.75	45.51	37.24	2.88	46.06	287.57
2000-01	106.68	40.21	9.22	47.81	32.44	2.47	44.73	281.09
1999-00	116.71	36.09	10.10	37.09	27.69	2.22	44.24	271.92
1998-99	107.41	32.54	9.00	39.02	23.78	1.92	39.97	251.72
1997-98	102.64	40.69	8.78	38.85	23.26	1.89	37.44	251.66
1991-92	67.60	32.10	9.92	22.40	6.72	0.68	17.90	156.64
CARG^	4.8	4.0	-0.4	8.3	21.0	17.4	11.0	7.0

^{*}Provisional figures. ^ For the period 1991-92 to 2001-02

Source: CARE

^{**}Million Twenty feet Equivalent Units

The overall pattern of the sea borne cargo traffic shows that around 69 percent of the cargo handled is mainly in respect of POL (35%) and dry bulk (34%), while remaining 31 percent of the traffic is by way of containers (14%) and other cargo (17%). Though the growth rate in containerised cargo has been higher than in the other segments, the overall growth has come from significant volume increase in liquid and dry bulk commodities trade.

Most of the major ports do not have sufficient draught and proper approach channels to accommodate large container ships and as a result, bulk of the container movement at Indian ports is by way of feeder movement. Further, unsatisfactory cargo handling performance of Indian ports acts as a disincentive for international shipping lines to call at Indian ports. At present, about seventy percent containers are trans-shipped at Colombo, Dubai, Singapore and Salalah. In order to reduce transshipment, the government proposes to develop a hub port each on the east and west coasts of the country at Chennai and JNP respectively. Further, it has been proposed to develop an international container transshipment terminal at Vallarpadam, Cochin.

In essence, the sectors that are growing are liquid bulk imports, driven by industrial growth and also container traffic, driven by global trends in logistics.

Most of the Indian ports were built before independence and facilities (berths and cargo handling equipments) were tuned to handle bulk cargo. This is also validated from the presence of a larger number of general break bulk berths in these ports. The port infrastructure in terms of approach channels and draught, was set up keeping in view the tonnage capacity of ships prevalent during those periods. The composition of India's trade has changed since building of most of our major ports. Increased containerisation of break bulk dry cargo has necessitated substantial changes not only in port infrastructure, but also in terms of cargo handling equipment, thus resulting in redundant berths and obsolete handling equipment at many of the major ports. This in turn entails substantial capital expenditure for modernisation. Initially, the cargo handling and loading/unloading of ships in the Indian ports was done with higher involvement of labour. This scenario has changed with the advent of larger vessels and mechanised loading/unloading systems. This has led to a larger quantity of cargo being handled by

lesser number of workers at the Indian ports. This has resulted in redundant staff at most of the major ports, particularly in older ports like Mumbai, Chennai, and Kolkata. The combined workforce at these three ports constituted around 50% of the total workforce of all the major ports. The total staff strength of all the major ports as on October 31, 2002 stood at 77,476.

Ports like JNP, Paradip, Tuticorin, HDC, and Vishakapatnam have exhibited higher than the average growth rate in traffic handled for the period under review. JNP, which was developed in 1989, handled around 55% of the total container traffic (in terms of TEU) for 2002-03. Ennore port which follows the 'Landlord' concept of port management has an employee strength of 17 and the total traffic handled for 2002-03 was 8.5 Mn MT. EPL has fully automated cargo unloading and handling equipment and most of the port operations are outsourced. Due to installation of relatively modern infrastructure at new ports, there has been a noteworthy shift in the cargo movement from older ports to upcoming ports in the same region, such as from Mumbai to JNP, from Chennai to Ennore and from Kolkata to HDC. The main objective of development of these new ports was to decongest the old ports by shifting cargo. However, efforts are being taken by the older ports to preserve the traffic volume by encouraging private players to develop and operate berths, especially container terminals, on BOT basis and/or enhancing/improving handling capacities by installation of modern cargo handling equipments.

OPERATIONAL PERFORMANCE OF INDIAN PORTS

The basic objective of a port is to provide a fast and safe transit of goods, so that generalized costs for shippers (tariffs+ storage time) are minimized. This requires minimum turnaround time for ships and efficient handling of cargo. Although average productivity in terms of ship turnaround time (3.7 days), preberthing time (0.5 days) and average ship berth day output (6,972 MT) has improved considerably over the last decade, the performance continues to be modest when compared with generally accepted international standard and performance of regional ports. The following table shows the performance indicators of major container handling ports in India and port of Hong Kong:

Table 4 - Performance Indicators (Container handling for 2001-02)

(in days)

Port	JNPT	Chennai	Cochin	Kandla	Kolkata	Tuticorin	Hong kong
Performance Indicators							
Average pre berthing time	0.30	3.30	0.15	0.13	0.05	0.04	negligible
Average turnaround time	1.04	6.60	1.56	1.53	2.40	0.56	0.42

Source: CARE

Out of the 184 minor/intermediate ports in India, most are located in Maharashtra (53), Gujarat (40), Kerala (13), Tamil Nadu (14) and Andhra Pradesh (12). Out of these, only 53 are developed and provide all weather berthing facilities for cargo handling.

The traffic handled by minor ports is continuously on the rise, increasing from 28 Mn MT in 1996-97 to 98 Mn MT in 2001-02. As per provisional figures, the traffic handled at minor ports for 2002-03 stood at 96 Mn MT. Of this, ports from Gujarat alone handled about 84.12 Mn MT of cargo. POL products constituted around 50% of the total traffic handled at Gujarat minor ports. Captive handling facilities of Reliance (SBM facility at Sikka handled 45.87 Mn MT for 2002-03), Essar, Gujarat Ambuja Cement, etc, alone contributed around 80% of the cargo handled for Gujarat. Currently, nearly 24% of the total traffic is being handled by the intermediate/minor ports. The role of minor ports is becoming increasingly important owing to the development of coastal shipping and ports like Gujarat Adani Port Limited (GAPL) and Gujarat Pipavav Port Limited (GPPL) are viewed as alternatives to congested major ports.

Private sector participation (PSP)

'Vision 2020', a study carried out by Rail India Technical and Engineering Services for the erstwhile Ministry of Surface Transport, envisages a total traffic (including container transhipment) of 1,374 Mn MT including 493 Mn MT of

liquid bulk cargoes, 364 Mn MT of container cargoes and the balance dry bulk and break bulk cargoes by 2022. The incremental capacity to be created in consonance with Vision 2020 calls for an investment of Rs.1000 Bn. In view of the gigantic task of capacity creation and requirement of funds, the Government has decided to involve the private sector, domestic and foreign, in the development of ports.

PSP in major ports

Though the sector was opened for private sector participation in 1996, it has been limited to leasing of berths and equipment, licensing of operations of existing container berths or granting BOT concessions and creation of additional terminal capacity. The following table gives details of terminals operated by private sector on BOT basis in Indian major ports:

Table 5 - PSP in major ports

Project	Operator	Project cost (Rs.Mn)	Capacity (Mn MT)	Status
NSICT*, JNPT, Mumbai	Peninsular & Oriental (P&O), Australia	8000	6.00	Operational since April 1999.
Chennai International Container Terminal	P&O, Australia	4000	3.00	Operational since December 2001.
Tuticorin	Port Of Singapore Authority (PSA)- South India Corporation (Agencies) Ltd. (SICAL)	1000	3.60	Operational since December 1999.
Visakha Container Terminal, Vishakapatnam	United Liner Agencies (India) & Dubai Ports International	1000	4 lakh TEU	Operational since June 2003.

^{*}Nhava Sheva International Container Terminal

Source: CARE

Similar licensing arrangements are being processed at Kochi and Kandla. The participation of private international operators in handling container terminals is setting new performance benchmarks. This has led to intra port competition between the port operated terminals and that operated by private operators.

PSP in minor ports

The Gujarat Maritime Board (GMB) has been proactive in policy formulation and has been able to attract substantial private sector investment in the port sector by development of greenfield ports on Build Own Operate and Transfer (BOOT) basis, where the financial liability of the state government has been limited. GAPL and GPPL are the first Indian greenfield multi-user ports developed in the private sector. GPPL was jointly promoted by Sea King Infrastructure Limited (SKIL) and state owned GMB whereas GAPL was promoted by Adani group and Gujarat Port Infrastructure Development Company (GPIDC), a state owned entity. The ports were developed under the BOOT policy of GMB, where the concession agreement is for a period of 30 years. Recently, both the private ports have attracted substantial interest from leading international terminal operator/shipping line. The following table gives details of the two private ports:

Table 6 -Greenfield multiuser private ports

Details	GPPL	GAPL
Ownership	SKIL & its associates - 38.14	Adani Group – 86
pattern (%)	Port of Singapore Authority (PSA) - 21.79	GPIDC - 11
Major	Industrial Development Bank of India (IDBI)	(As of October, 2003)
shareholders	- 12.49	
	Maersk - 12.49	
	(As on March 31, 2002)	·
Infrastructure	Three dry cargo berths (single length jetty of	Four multi-purpose berths (895 meters).
	725 metres) and one LPG/Liquid cargo berth	Container Terminal with 1100m of quay line.
	(305 metres).	Draft of 18.0 - 18.5 meters.
	Draft of 10.5 meters.	Present handling capacity - 11 mtpa.
	Present handling capacity - 11 mtpa.	
Port operation	GPPL - Port Authority.	GAPL - Port Authority
model	Some of the services within the port are	Adani Port limited - operates multi purpose
,	outsourced.	berth
		Adani Container Terminals limited (ACTL) -
		operates container terminal
Cargo handled	17.9 lakh MT p.a.	2.89 lakh MT p.a.
(2002-03)		,

...contd.

Details	GPPL	GAPL
Recent	Maersk Sealand, a part of Danish shipping	P&O Ports, Australia has bought over ACTL
developments*	major, is increasing its stake to 26% from	for a consideration of \$60 Mn from GAPL.
	12% in GPPL. The port is proposed to be	ACTL has a capacity for handling 1.25 Mn
	controlled by Maersk. Maersk and other	TEU. Existing infrastructure, comprising road-
	investors propose to develop the port into a	rail connectivity, back up area and berths will
	full fledged container terminal.	either be transferred to P&O Ports, or will be
	Total proposed investment: Rs.10000 Mn.	shared by it and GAPL.
		Total consideration :\$195 Mn (approx. Rs 9360
		Mn.)

^{*} Reported transactions/deals

Source: CARE

As would be evident from the table, international players have increased their stake in both the ports with substantial investment. The proximity of Gujarat to the vast northern and western hinterland has been a major driving factor. Another noteworthy feature is that both investors have the potential of attracting cargo to the ports. Further, players like Petronet LNG Ltd. and Shell India Ltd., which are putting up LNG terminals at Dahej and Hazira respectively have evinced interest in developing multi-user cargo port.

Majority of the major ports suffer from inadequate port infrastructure, obsolete handling equipment, high manning scales and operational inflexibility, arising due to their administrative set up and lack of market response. Inadequate hinterland connectivity has inhibited inter-port competition till date. However, implementation of the Rashtriya Rail Vikas Yojana and the Golden Quadrilateral Project is expected to improve hinterland connectivity as well as port connectivity. Private sector participation in Indian port sector has picked up during the last few years. Details of major investments made by the private players in this sector are given in the following table:

Table 7 - Private Sector Participation

Port/Terminal	Capacity (mtpa)	Investment
		Details/ Recent transactions
GPPL	11 (4 multi cargo berths)	Maersk has proposed to increase its stake to 26% and invest around Rs. 10000 Mn for development of the port. (#)
GAPL	11 (3 multi cargo, 1 liquid cargo berths and a container terminal)	P&O, Australia has brought the container terminal having a capacity of 1.25 Mn TEU and an arrangement for the backup infrastructure has been arrived for a total consideration of \$195 Mn. (approx. Rs 9360 Mn) (#)
NSICT.	6.00	P&O, Australia - Rs.8000 Mn (BOT basis)
CICT*	3.00	P&O, Australia - Rs.4000 Mn (BOT basis)
Visakha Container Terminal, Vishakapatnam	4 lakh TEU	United Liner Agencies (India) & Dubai Port International – Rs. 1000 Mn (BOT basis)
Tuticorin Container Terminal	3.60	PSA (Port Of Singapore Authority)-SICAL - Rs. 1000 Mn (BOT basis)

^{*}Chennai International Container Terminal. (#) Reported transactions/deals

Source: CARE

As is evident, international players have not only invested in operating individual terminals but also have evinced interest in development and management of ports. Though the overall investment by the private sector in greenfield port development has been small, individual ports have attracted substantial investment. Investment has been based on the potential of individual terminals/port and hence it is difficult to correlate capacity with investment made. Figure/amount with respect to investment made by international players in minor ports are reported figures and hence may not be totally reliable. Another noteworthy feature is that majority of the investments in the Indian port sector till date by international players has been in development/operation of container terminals.

To meet the future demand, further investments are required from the private sector coupled with a gradual shift to the "landlord" type of functioning from the "service port model". New private ports with their direct berthing facilities,

specialised terminal operators, good hinterland connectivity are expected to provide keen competition in the near future to existing ports. Presence of multiple private terminal operators within existing major ports is expected to be the norm for future, leading to intra-port competition. All this augurs well for the future of the Indian port sector and its users. However, port development activity is capital intensive and overall coordination of future development is essential to avoid overinvestment in the sector.

OPERATIONAL PERFORMANCE OF EPL

NCTPS of TNEB located near Ennore Port was conceived as a coal-fired power station with an ultimate capacity of 2205 MW (Phase I of 630 MW, Phase II of 1050 MW, Phase III of 525 MW). The required coal was expected to be sourced from Talcher mines in Orissa. A study conducted in 1986 found that the transportation cost of coal could be minimised through a rail-cum-sea route consisting of movement from Talcher mines to Paradip port by rail and from there to Chennai port/new port near NCTPS by coastal shipping. Further, it was also realised that the needs of Ennore Thermal Power Station (ETPS) and Mettur Thermal Power Station (MTPS) of TNEB could also be handled through a port near NCTPS. The total coal requirement of the three power stations was estimated to be 16 Mn MT per annum (mtpa).

Realising the potential of the site, a study was commissioned at the design stage itself to prepare a master plan so that the basic harbor could be built incorporating the future requirements.

In the first phase of development of Ennore Port, the basic infrastructure like two breakwaters (South – 1070 metres and North – 3080 metres) of total length of 4150 metres, dredging of the port basin and approach channel and a coal terminal consisting of two berths have been developed. The alongside depth at berths is 15 M below chart datum and vessels of Panamax/Post-Panamax (65,000 Dead Weight Tonnage (DWT)/77,000 DWT) can be safely accommodated. The Port can construct additional terminals to handle coal for non -TNEB users, iron ore, crude oil, LNG, petroleum products, other liquids, automobiles and containers.

The project was envisaged to be completed by December 31, 1997. However it was delayed by about 3.5 years due to time overrun in loan negotiations, selection

of project consultants, commencement and completion of engineering designs, tendering and finalization of bids and execution of breakwater construction due to design modifications.

The following table shows the details of the project cost at appraisal stage, project contract value at the time of award of contract and project cost at completion:

Table 8 - Project Cost of EPL

(Rs.Mn)

Details	Appraisal	Contracted	Cost at
	estimate	cost	completion
Breakwater construction	2,101	3,473	3,453
Construction of berths (2)	504	583	611
Dredging	819	761	885
Coastal protection*	136	0	0 .
Misc. civil works	154	616	616
Floating craft	729	571	651
Navigational aids	19	19	21
Land acquisition	20	149	149
Engineering & supervision	219	334	609
Sub-total .	4,701	6,505	6,995
Contingencies:	· · · · · · · · · · · · · · · · · · ·		
Physical contingency	618		
Price contingency	693		
Interest during construction (IDC)	886	2,352	2,352
Total	6,898	8,856	9,346

^{*}Construction of groynes for shore protection was not undertaken as envisaged. Detailed coastal protection and sediment transport studies for determining the long term requirements of coastal protection are in progress.

Source: CARE

The project completion cost was around 5% higher than the contracted cost. The major factors contributing to the escalation in project cost were breakwater and dredging cost (due to the change in layout as per master plan), miscellaneous civil works and land acquisition cost (under estimated at the time of appraisal) and consultancy services (due to delay in project implementation). Contingent liabilities relating to the project as on March 31, 2003 stood at Rs.1128 Mn.

EPL being the first major port in India operating on the landlord concept of port operation, it has limited itself to the functions of:

- Provision of infrastructure for maritime access (channels, approximation zones), Sea defence (breakwaters, locks), Signaling (lights, buoys);
- Provision of infrastructure within the port area (by concession/licensing arrangement with private sector on BOT basis);
- Strategic port planning;
- Promotion and marketing;
- Regulation and control of safety within the port;
- Environmental protection; and
- Coordination with various Departments/Agencies.

EPL provides only pilotage services to vessels and all other operations of the port are outsourced from private sector. Further, in June 2003, EPL sold all its marine craft to a private party and re-chartered them for a period of 12 years.

Besides the marine access infrastructure, as mentioned earlier, the berths are equipped with two shore based grab unloaders (2000 MT per Hour (TPH) each), mobile hoppers and two streams of belt conveyors (each 4000 TPH capacity) for direct delivery to NCTPS. The mechanized coal unloading facilities have been licensed out by TNEB on BOT basis to SICAL. The conveyor system has been installed by TNEB. The unloading facilities installed at the coal berths 1 and 2 and the conveyors directly linking the berths with the stack yards of NCTPS are manned, operated and maintained by TNEB, the captive user of the facility.

Details of Land

EPL has acquired around 2084 acres of land and is in the process of acquiring additional 1200 acres of land. Details of land, approximate cost of acquisition and their present status are given in the following table:

Table 9 - Details of land

Sr.	Lands from	Area	Approx. cost of	Present status
No.	whom acquired	(acres)	acquisition (Rs.Mn)	
1	TNEB	1103.9	150 (balance payment depends on settlement of court cases regarding compensation	Possession of land has been given to EPL. Title is held by TNEB and is yet to be transferred to EPL.
2	Salt Department	29.76	0.75	Possession of land has been given to EPL. Title is held by Salt Department and is yet to be transferred to EPL.
3	Tamilnadu Industrial Development Corporation	950	95.67	846.96 acres given possession. Balance 103.04 acres yet to be handed over. Title is held by TIDCO and is yet to be transferred to EPL.
	Total	2083.7		
Land	l to be acquired (p	process in	progress)	
1	Salt Department	1200	68 (payment will be made after takeover of the land)	Salt department has agreed to give this land to EPL. It is under correspondence between salt department and department of Industrial Policy and Promotion, Ministry of Commerce & Industry, Govt. of India.

Source: CARE

Land within port limits is owned by Gol. EPL has requested MoS, to transfer ownership of land within the Ennore Port limit to EPL or to hold jointly with Gol. A similar situation is likely to arise if MoS proceeds ahead with the proposal for corporatisation of major ports. As per the Major Port Trust Amendment Bill, 2001, in the event of corporatisation of major ports the ownership of land and waterfront shall be vested in the Central Government, which will give the same on lease to the successor companies.

Operation

EPL is currently operating with two dedicated coal berths and handles thermal coal for the power stations of TNEB i.e. NCTPS (Annual requirement: 2.91 Mn MT), ETPS (Annual requirement: 2.28 Mn MT), and MTPS (Annual requirement: 4.27 Mn MT). Phase II and Phase III of the envisaged NCTPS could not come up due to non-achievement of financial closures by private parties (concessionaires granted by TNEB for development of respective phases). Hence, the current throughput achieved by EPL is around 9.46 Mn MT compared to envisaged throughput of 16 Mn MT. The traffic handled by EPL since commissioning of the port is shown in the following table:

Table 10 - Traffic Handled by EPL

(Mn MT per annum)

Period	Traffic handled
June 2001 to March 2002	3.401
April 2002 to March 2003	8.485
April 2003 to July 2003	3.313

Source: CARE

Ennore Port handled 8.485 Mn MT of coal during 2002-03 and during the current financial year (2003-04), the expected traffic is around 10 Mn MT.

The Port is presently handling coastal coal and the load ports are Paradip, Haldia and Vishakapatnam. The coal received at Ennore Port is evacuated by conveyors to NCTPS stack yard. The coal for ETPS and MTPS are despatched through rail from there. Gearless/self unloading ships of size 65,000/77,000 DWT and geared Handymax vessels of size 40,000/50,000 DWT are being handled at the coal berths. The two coal berths presently can handle about 10 Mn MT of thermal coal, which could be upgraded to 16 MTPA by providing additional shore based equipment in future.

Operational parameters

The key performance indicators of EPL since commissioning of the port are shown in the following table:

Table 11 - Key performance indicators of EPL

Performance Indicators	2001-2002 (June-March)	2002-03	2003-04 (April-July)
No. of vessels handled	71	154	58
Average pre-berthing detention on port account (day)	0.416	0.065	0.097
Average turn around time (day)	3.624	2.217	2.141
Output per ship berth day (MT)	16,742	26,779	30,886
% of idle time to total time at working berth	21.052	16.770	10.990

All the operational parameters (except marginal increase in pre berthing time) under review have improved considerably over the period under consideration. The operational parameters compare favourably with most of the major ports operating in the country.

Tariffs

At present, the company has a single client viz. TNEB, which is utilizing the two coal berths on a dedicated basis. A composite tariff of Rs.90 per MT of coal handled has been fixed through mutual discussions between EPL and TNEB. Further, TNEB has to pay way leave charges of Rs.0.80 per MT. The basis of the composite tariff agreed between TMEB and EPL are:

- Updating the tariff of Rs.74 per MT of coal adopted in 1992 in working out the financial viability of handling coal through Ennore Port.
- Fixation of tariff based on sharing of savings accruing to TNEB by shifting the coal handling from Chennai port to Ennore Port after adjusting for capital cost incurred on coal handling system.

The composite tariff of Rs.90 per MT of coal was fixed for a period of three years (upto June 2004) at the rate of 10 Mn MT to be handled in two berths. Revision of tariff once in three years based on wholesale price index has been decided upon. But there is no fixed 'pay or take' contract between TNEB and EPL. The commercial risk is borne by EPL.

Corporate Mission

As a commercially oriented corporate, EPL strives to expedite its growth, provide efficient, cost effective and highly productive port services and facilities through involvement of private capital and management and the effective leveraging of its assets and inherent advantages to the benefit of the port users, its shareholders, the economy and the nation.

EPL is a relatively new entity and most of the services are outsourced and it has been operating with minimum employees. The employee strength as on March 31, 2003 stood at 17.

Master Plan

The master plan for the overall development of the port has been reviewed and updated by EPL with due considerations as to market demands, vessel sizes, location of berths, turning circle, depths in the channel/basin, allocation and reservation of land for port related activities as per the Land Use Plan. Ennore Port has identified four projects for development under PSP on BOT format to be taken up and implemented during the 10th Five Year Plan. The table below shows the details of the project proposed to be completed during the 10th Plan:

Table 12 - Proposed projects to be implemented during
10th Five Year Plan

Project Particulars	Approximate Cost (Rs. in Mn)	Capacity addition (in MnMT)	Expected date of completion	Mode of Implementation
Iron Ore Terminal (including handling equipment and storage)	3500	12.00	July 2005	ВОТ
Marine Liquid Terminal for handling POL Products/Chemicals.	2000	3.50	July 2005	вот
Coal Terminal for users other than TNEB (including handling equipment and storage)	3000	8.00	July 2005	вот
LNG Terminal	2000	2.50	July 2006	ВОТ

Source: CARE

On the part of EPL, being the landlord responsible for providing necessary infrastructure to support the envisaged plans, capital expenditure necessary for dredging to deepen the port basin and approach channel to handle Cape Size Vessels (CSV) for export of iron ore (150,000 DWT -16.5 metres draught) is estimated to be Rs. 1950 Mn. The original proposal was for deepening the approach channel and port basin to handle Very Large Crude Carriers (VLCC) for import of crude as well as export of iron ore through CSV at a cost of Rs.3000 Mn. In view of Chennai Petroleum Corporation Limited's decision to retain its operations at Chennai Port, the proposal has been revised to create facilities for handling iron ore through CSV. With the present financial status, it may not be possible for EPL to finance the project from its internal resources as the port has committed to service the interest and repayment of Phase I term loans. Dredging being the basic infrastructure, EPL proposes to approach government of India for grant or a grant-cum-loan for financing the project. However, it is felt that EPL, in order to prepare itself as a commercial entity, should seek any funding from government in the form of equity, and not as grant. In case the request to Gol does not materialise, EPL proposes to approach Banks and Financial Institutions for term loans for the same.

The following table shows the projected traffic for the period 2003-04 to 2009-2010:

Table 13 - Projected Traffic

(Mn. MT)

Year	Commodity					
	Thermal coal (TNEB)	Coal (other users)	Liquids	Iron Ore	LNG	Total
2003-04	9.46	0.00	0.20	1.00		10.66
2004-05	9.46	0.00	0.50	2.00		11.96
2005-06	9.46	0.00	0.50	2.00		11.96
2006-07	11.68	3.00	1.50	8.00		24.18
2007-08	11.68	5.20	3.00	10.00		29.88
2008-09	13.90	8.00	3.00	12.00	2.50	39.40
2009-10	13.90	8.00	3.00	12.00	2.50	39.40

Source: CARE

TNEB has recently signed a Memorandum of Understanding with National Thermal Power Corporation for additional power generation of 1000 MW at Ennore. This is expected to generate more traffic at the existing coal berths within the next 5 years. The projections are based on further capacity additions as mentioned earlier. Further, there are plans for an additional liquid berth, a LNG terminal, crude oil terminal for receiving VLCC and containers. The projections also include two proposed interim arrangements for handling POL (at one of the existing coal wharves) and iron ore terminal (through barges feeding vessels anchored).

FINANCIAL PERFORMANCE

Profitability of EPL

EPL commenced operations in June 2001. Hence, annual accounts for only last two Financial Years are available. Summaries of the Profit and Loss Accounts, Balance Sheets and of Ratio Analysis for the last two FYs are given in the following tables:

Table 14 - Profit & Loss Account

(Rs. Mn)

Year ending March 31	2002	2003	
Income from Services	307.78	768.73	
Expenditure			
Port operating expenses	14.77	51.47	
Administrative expenses	14.60	35.90	
Establishment charges	11.59	7.16	
Total Operating cost	40.96	94.53	
Gross Profit (PBILDT)	266.82	674.19	
Depreciation	120.17	131.42	
PBIT	146.65	542.77	
Finance charges	495.93	471.40	

...contd.

Year ending March 31	2002	2003
Profit from Operations	-349.28	71.37
Other income	1.65	11.81
Prior period items		
Deferred revenue expenses written off	10.26	10.26
Preliminary expenses written off	1.60	1.60
PBT	-359.49	71.32
Deferred tax	0.00	5. 7 1
PAT	-359.49	65.62
Adjustment for deferred tax	0.00	9.46
Profit/(Loss) for the year	-359.49	75.08
Gross cash accruals	-227.46	214.61

Table 15 - Balance Sheet

(Rs. Mn)

As on March 31,	2002	2003
Souces of Funds		
OWN FUNDS		
Equity Share Capital	3000.00	3000.00
less: Accumulated losses	359.49	284.41
less: Deferred revenue expenses	41.03	30.77
less: Preliminary expenses	6.40	4.80
Net worth	2593.08	2680.02
LOAN FUNDS		
Unsecured Loans	5539.60	4674.75
Government of India	1381.13	1278.50
Int. bearing loan	1205.04	1278.50
Of which accrued interest	176.09	0.00

...contd.

As on March 31,	2002	2003
Chennai Port Trust	4158.48	3396.26
Int. bearing loan	3333.53	2723.09
Non Int. beraing loan	462.49	462.49
Accrued interest	362.46	210.68
Total	8132.68	7354.77
Application of funds		
Fixed assets		
Gross Block	8243.67	7393.18
Less: Depreciation Reserve	120.17	251.59
Net block	8123.51	7141.59
CWIP-Phase II	49.95	60.32
Total	8173.46	7201.91
CA, Loans & Advances	749.61	746.25
Sundry debtors	84.59	9.62
Cash and bank balances	195.11	254.48
Deferred tax asset		3.75
loans and advances	469.92	478.40
Total Current Asset	749.61	746.25
Current liabilities and provisions		
Current liabilities	780.65	586.39
Provisions	9.73 .	7.00
Total	790.39	593.39
Net current assets	-40.77	152.86
Total	8132.68	7354.77

Table 16 - Past Ratio Analysis

Year		2002	2003
Solvency Ratio	os		
Long Term			
a. Debt Equity	y ratio	2.14	1.74
b. Overall Ge	aring ratio	2.14	1.74
c. Interest Co	verage (times)	0.30	1.15
Short term			
a. Current Rat	tio	0.95	1.26
b. Average Co	ollection Period (days)	200.62	6.52
Profitability R	atios (%)		
a. PBILDT /	Total Operating Income	86.69	87,70
b. Operating F	Profit / Total Operating Income	-ve	9.28
c. PBT / Tota	Income	-ve	9.28
d. PAT / Total	Income	-ve	8.54
e. Interest / A	verage Borrowed funds	8.95	10.08
f. Return on I	nvestment (ROI) - Operating	3.61	7.11
g. Return on I	nvestment (ROI) - Total	3.59	7.06
h. Return on l	Networth (RONW)	-ve	2.45
i. Total debt/	Gross cash accruals(years)	-ve	21.78
Turnover Ratio	os		
a. Capital Tur	nover Ratio	0.08	0.10
b. Fixed Asset	s Turnover Ratio	0.08	0.10
c. Working Ca	pital Turnover Ratio	-ve	3.43
Earnings Ratio	os		
a. Book Value	(Rs.)	8.64	8.93
b. Earnings pe	r Share (Rs.)	-1.20	0.22
c. Cash Earnir	ngs per share (Rs.)	-0.76	0.72

The key indicators of profitability of EPL are given in the the following table:

Table 17 - Profitability of EPL

(Rs.Mn)

Financial Year ending March 31	2002	2003
Total Operating Income	308	769
PBILDT	267	674
Interest	496	471
Profit from Operations	-349	71
PAT	-359	66
Prior Year Adjustments	12	12
Net Profit	-359	75
Gross Cash Accruals	-227	215

Source: CARE

The composite tariff on coal paid by TNEB contributes to around 98% of the total income. Income from berth charges and other vessel related charges has been negligible. Greater part of the other income is due to interest income on deposits held with banks. Repair and maintenance expenses constituted around 50% of the total operating expenses for 2002-03. This was due to maintenance dredging carried out during the year. Marine services is the other major expenditure head constituting around 20% of the total operating expenses for 2002-03. As already mentioned, marine services are being outsourced from a private operator. Total operating income and PBILDT margins have grown in line with the increase in traffic handled during 2002-03. PBILDT margin for both the years is around 88%. Interest charges stood at around 61% and 161% of the total operating income for 2002-03 and 2001-02 respectively. High interest charges have impacted the bottom line of EPL substantially with EPL being unable to meet its financial obligations for 2001-02. The tax expenses for 2002-03 of Rs.5.71 Mn have been adjusted against deferred tax asset. EPL has been successful in renegotiating rate with ChPT and the interest on outstanding ChPT loans has been reduced to 10.5% from 13% with effect from January 24, 2003. EPL is also taking action to swap GoI loan by borrowings from Banks/FIs at the prevailing market rate of interest.

Cost of Project

The cost of project has been adjusted by a net amount of Rs.852.2 Mn during the year on account of the following factors:

- Difference in treatment, between EPL and GoI, of payments effected towards loan from GoI having the impact of increasing the interest on loan from GoI and the cost of project by Rs.9.9 Mn;
- 2. Revised working of interest on the loan from ChPT, and front loading of equity having the impact of reducing the IDC and corresponding loan outstanding to ChPT and the cost of project by Rs. 497.5 Mn;
- Variation in the projects outstanding as certified by the executing agency (ChPT) and engineering cell of EPL having the impact of reducing the cost of project by Rs.334.9 Mn;
- Payments made pursuant to arbitration awards on claims and increased cost of assets amounting to Rs.27.3 Mn having the impact of increasing cost of the project by similar amount; and
- 5. Credits from ChPT pertaining to recoveries amounting to Rs.57.0 Mn having the impact of reducing cost of the project by similar amount.

The key financial parameters of EPL are shown in the following table:

Table 18 - Financial Position of EPL

(Rs Mn)

Year Ended / As on	31/3/02	31/3/03
Equity Share Capital	3000	3000
Net worth (adjusted for accum. losses and deferred revenue and preliminary expenses)	2593	2680
Loan funds	5540	4675
Government of India		

...contd.

Year Ended / As on	31/3/02	31/3/03
Int. bearing loan	1205	1278
Accrued interest	176	0.
Chennai Port Trust		
Int. bearing loan	3334	2723
Non-Int. bearing loan	462	462
Accrued interest	362	211
Gross Fixed Assets (incl. CWIP)	8173	7202

Net worth of EPL has eroded due to loss of Rs.359 Mn incurred during 2001-02. There has been marginal improvement in 2002-03.

Ratios

The key ratios for EPL are shown in the following table:

Table 19 - Key Ratios of EPL

Financial Year ending March 31	2002	2003
PAT margin (%)	-ve	8.54
Return on Investment (ROI) (%)	3.61	7.11
Return on Net worth (RONW) (%)	-ve	2.45
Capital turnover Ratio	0.08	0.10
Debt Equity Ratio	2.14	1.74
Interest Coverage (times)	0.30	1.15
Total debt/ Gross cash accruals (years)	-ve	21.78

Source: CARE:

These are early years of operations of EPL and it may be premature to conduct a rigorous financial analysis. As mentioned already, EPL has invested in the maritime access infrastructure keeping in view the potential to develop 22 berths whereas, only two berths are operational as on date. However, it may be noted that EPL recorded a PAT margin of 8.54% and the interest coverage was greater than one for 2002-03.

Contingent liabilities

The contingent liabilities as on March 31, 2003 stood at Rs. 1128.04 Mn. The contingent liability comprises:

- 1. Claims against the company not acknowledged as debts: Rs. 1118.34 Mn
- 2. Estimated amount of contracts remaining to be executed on capital account: Rs. 9.7 Mn.

Contingent liabilities at around 0.42 times the net worth as on March 31, 2003 was high mainly due to project related disputes.

All regulatory and other statutory requirements for development and operation of port have been completed. In essence, the project completion risk is low and any entity (EPL or a strategic investor) as a landlord will now have to invest in ensuring provision of basic infrastructure and development of port. Hence it is felt that any sale should be at a premium to the prevailing book value. EPL has acquired land from government/quasi government organizations. Since the present market value of such land may be substantially higher, proper valuation of land should be undertaken before any disinvestment.

SWOT ANALYSIS

- First corporatised major port operating on 'landlord' concept
- Developed marine access infrastructure
- Port infrastructure capable of accommodating 22 berths
- Available draft of 15 meters capable of accommodating 65,000 DWT vessels
- Availability of land (approximately 3,300 acres) to provide backup infrastructure for storage and timely evacuation of cargo
- Excellent hinterland connectivity
- Lean organization

Weaknesses

- Equity holding of ChPT in EPL
- Single customer with no fixed 'take or pay' contract
- Presence of three major ports serving in the same hinterland
- Operations yet to stabilise for existing capacity

Opportunities

- Can emerge as a trans-shipment hub
- Congestion at existing major ports
- Potential to emerge as a leading dry bulk cargo handling port
- Expected hinterland development

Threats

- Capacity augmentation of existing major ports
- Development of minor ports in the region
- Elaborate decision making process may delay timely development of envisaged port facilities

DISINVESTMENT CONSIDERATIONS

As mentioned earlier, EPL is a public sector undertaking with GoI holding 66.7% of the equity capital. The balance (33.3%) of the equity is held by ChPT. It is the first corporatised major port in India and is operating on the landlord concept of port management, which is the most prevalent and accepted model of port operations worldwide. The marine access infrastructure has been constructed with a long term vision and has the capacity to accommodate 22 berths. Currently, only two berths are operational with TNEB being the captive user of the facility.

EPL has plans to expand the port with individual berths being developed by private investors on BOT basis. EPL, as the landlord, will be responsible for providing the basic infrastructure.

Issues in Disinvestment

The following are the main issues to be considered in the context of disinvestment in EPL:

- International and national experience;
- ownership of land and navigable waters;
- port planning and development;
- equity holding of ChPT;
- timing of disinvestment; and
- corporate mission of EPL.

International and national experience

As discussed earlier, Port authority in majority of the countries is still a public sector entity. However, in few countries (U.K) private ports are operating and the concept of private sector Port authority is emerging in some countries. In India, two private ports viz. GAPL and GPPL are already operating. These ports were developed under the BOOT policy of Gujarat Maritime Board, where the concession agreement is for a period of 30 years. The private Port authorities enjoy considerable operational autonomy. The combined traffic handled in 2002-03 through these ports was around 6 Mn. MT.Though PSP in ports has been extended to construction of port infrastructure from the provision of services, the port 'owner' is still a governmental authority, whether national or regional or local, in most countries. Even the domestic experience with large sized private ports is limited and a national regulatory framework for monitoring operations of private ports is yet to emerge. In view of this, it is felt that privatisation of Port authorities may be taken up only after reviewing the experience of operation of the two large sized private ports in Gujarat, for a period of three years, and

developing, if found necessary after such a review, an appropriate regulatory framework for private Port authorities.

Ownership of land and waterfront

The ownership and utilization of land and waterfront is a highly sensitive issue not only from commercial standpoint but also from defence and security concerns. Navigable waters and land adjacent to them are scarce public goods and should be used for the benefit of public at large and it may not be desirable, at this stage, to permit monopolistic control over the same by any private parties. In India, navigable waters and land adjacent to the major ports are under the control of the Port Trusts. Although The Major Port Trust Amendment Bill, 2001 that envisages corporatisation of Port Trusts, has been introduced in the Parliament, one of the issues that has not yet been resolved pertain to ownership and utilization of navigable waters and land adjacent to them. Ownership of land and waterfront may rest with government and land might be given on lease to the corporatised entity. In the case of private ports operating in Gujarat, the land has been given on lease to the port company for a term concurrent with term of the concession agreement. GoI is likely to review the experience with these two ports, while evolving a framework for the ownership and utilization of land and waterfront in respect of major ports. Once the issue regarding ownership and utilization of land and waterfront in respect of major ports is resolved and an appropriate regulatory framework is developed, privatisation of port authorities can be considered.

Port Planning and Development

A port consists of not only terminals but also approach channels, breakwaters, rail/road access, etc. Swift development of these facilities requires co-ordination with a number of agencies that are in the public sector. EPL, as a public body, would be in an advantageous position to co-ordinate activities of public bodies involved in development of basic infrastructure. However, the elaborate decision making process followed by public bodies including EPL, to withstand public scrutiny may nullify this advantage to some extent.

Equity holding of ChPT

Ennore Port has been developed as a satellite port of Chennai Port and ChPT was the implementing agency, holding 33.3% of the equity of EPL. While involvement of an agency like ChPT with experience in port operations and local knowledge has benefited EPL, it is felt that continued involvement of ChPT may restrict the growth of EPL. The exim trade is likely to benefit, if the two ports of Ennore and Chennai compete with each other to provide service to their clients. It may, therefore, be desirable that holding of ChPT in EPL is divested. Otherwise, EPL may for ever remain as a satellite port, handling only the cargo that cannot be handled by ChPT.

Timing of disinvestment

EPL has developed the marine infrastructure access for accommodating 22 berths and at present only two berths are operational. It proposes to develop additional berths on BOT basis during the Tenth Five Year Plan. Given the fact that it is a new model (of operating on the landlord concept) for the country, it is felt that it may be allowed to operate in the existing mode for some more time, say three years. By then, it is hoped that appropriate regulatory framework for ownership and utilisation of land and waterfront would be in place to facilitate private sector operation of ports.

Corporate Mission

The mission of EPL is: As a commercially oriented corporate, EPL strives to expedite its growth, provide efficient, cost effective and highly productive port services and facilities through involvement of private capital and management and the effective leveraging of its assets and inherent advantages to the benefit of the port users, its shareholders, the economy and the nation.

RECOMMENDATIONS

As detailed earlier, major ports in India, other than Ennore Port, are governed by a Board of Trustees appointed by GoI and can be classified as service ports. EPL was developed as a corporatised port operating on landlord concept, on an experimental basis. It commenced operations in June 2001 and operations are still in a nascent stage with only two of the envisaged 22 berths being operational. In view of this, it is felt that EPL should continue as a government company for a period of 3 years, by which time, the operations are expected to attain a critical size. Further, by then it is hoped that amendments to The Major Port Trust Amendment Bill, 2001 would be passed and an appropriate regulatory framework would have also emerged for operation of corporatised port entities.

In view of the above, the Commission recommends that disinvestment of GoI's holding in EPL should be considered after a period of three years. In case of any delay in project implementation, disinvestment may be considered after an appropriate regulatory framework mentioned above is installed. At that stage, 51% equity of EPL should be disinvested in favour of a strategic partner, through the competitive bidding route. Balance shares may be disinvested five years thereafter.

Meanwhile, since continued holding of equity by ChPT in EPL might impede competition between the two ports and affect the speedy growth of EPL, holding of ChPT in EPL should be transferred to/purchased by GoI.

* * * *

2.3 NORTH EASTERN HANDICRAFTS AND HANDLOOMS DEVELOPMENT CORPORATION LIMITED (NEHHDC)

INTRODUCTION

The initiative for setting up of NEHHDC began in the year 1976, mainly with a view to harnessing the immense potentialities for development of handicrafts and handlooms in the Northeast region, in an organized and planned manner. The company was incorporated on 31st March 1977, as a Central Public Sector Undertaking and is 100% owned by the Government of India. It is under the administrative control of the Department of Development of Northeastern Region.

The main objectives of the company are to establish sales centres such as emporia, showrooms, publicity offices, exhibition cells and centres in order to improve the marketability of handicrafts and handlooms from the Northeast region. The institution was set-up for purely promotional and developmental purposes but with no commitment towards continued budgetary support.

The corporation was started with a share capital of Rs. 10 million (Mn). The capital was raised to Rs.20 Mn in the year 1990-91. Of this additional Rs.10 Mn, Rs.3.7 Mn were utilised as funding for a special procurement drive of finished goods as per government directives. The balance Rs.6.3 Mn are held in fixed deposit as per Government instructions.

Its product line includes cane and bamboo based eco-friendly and bio degradable handicrafts articles of utilitarian and decorative values and cotton, silk, wool and acrylic based handloom products from the Northeast region of India.

The registered office of the corporation is in Shillong and its regional office is in Guwahati. There is one Area Office located at Silchar. The liaison and sales promotion office is located at New Delhi.

The net worth of the corporation as on 31st March 2003 was Rs. (-) 121.5 Mn and, as on 31st October 2003, was Rs. (-) 129 Mn.

Core Activities

The core activities of the corporation are as follows:

Development activities:

- Conducting training programmes for weavers and artisans engaged in cane and bamboo crafts, brass and bell metal, carpet weaving, improved looms etc
- Conducting UNDP-sponsored cane and bamboo design development projects in the Northeast
- Setting up of cane and bamboo based Common Facility Centres for development and production of ready to use intermediary/components and conducting training programmes for artisans and entrepreneurs
- Setting up of Craft Development Centres in the craft concentration areas
- Conducting thematic exhibitions with appropriate décor and crafts demonstrations
- Regional collection of traditional basketry to serve as leads for design development
- Organising product development workshops-cum-training programmes by engaging professional designers in various craft clusters of the northeast region
- Publication of product catalogues and brochures
- Development of exportable products and their marketing
- Project package schemes, and
- Undertaking the Babasaheb Ambedkar Hastsilp Vikas Yojana.

Under the various development programmes, the corporation has extended direct benefits of training, design development, capacity building, market research, technological upgradation, utilisation of improved tools, equipment etc to 13,250 artisans and weavers in the entire region. Besides this, the secondary and tertiary beneficiaries under these programmes are reported to be around 25,000 craftsmen.

Marketing activities:

- Retail sales of handicraft and handloom products through the sales emporia
- Conduct sales cum exhibition programmes all over the country (till date 900 such exhibitions have been conducted)
- Participate in National Handloom Expos, Handicraft Expos, India International Trade Fairs, International Handicrafts and Gifts' Fairs and other national and international events
- Conduct exclusive northeast Craft Fairs with exclusive participation of various craftspersons and agencies from northeastern states
- Conduct craft bazaars, buyer-seller meets and fashion shows promoting traditional fabrics of the northeast region and exhibition cum sales in tieups with CII, NECCI, etc.

Under the marketing programmes, the number of artisans and weavers who have benefited directly is 4,657. Besides this, there are 12,000 secondary and tertiary beneficiaries.

However, it has been observed that the drop out figure of the above artisans and weavers is as high as 70-90%, owing to various reasons. One of the main reasons is their migration from villages to small towns and cities for menial jobs that often turn out to be more remunerative. Other factors like lack of access to good quality raw material and credit, inadequate infrastructure for selling the finished items etc also discourage the craftsmen to continue with their present sources of income.

Manufacturing Facilities

The corporation's existing manufacturing and processing facilities include the following:

• Craft Development Centres (CDCs)

NEHHDC has four CDCs. These are located at Beltola, Narangi, Kukumara and Maswynram. Their main activities include organizing training, design development and production of selected cane and bamboo based handicraft articles from the clusters where they are located. Further, the CDCs are also instrumental in the procurement activities undertaken by NEHHDC from the identified clusters directly from the artisans and marketing the same in the retail exhibitions, expositions, fairs and other specialized events in the country and abroad.

• Common Facility Centre (CFC)

NEHHDC's CFC is located at Garchuk, Guwahati and has been catering to the requirements of ready to use bamboo and cane based raw materials and components of the artisans of Assam. The artisans are utilizing the benefits of the CFC in the development and production of value added handicrafts for domestic marketing and exports.

The CFC has 15 pieces of imported Bamboo Processing machinery that is capable of producing various bamboo intermediary products like splits, slivers, sticks, strips etc. It also has facilities for chemical treatment of bamboo intermediaries and products.

The corporation has five sales outlets. These are located in Shillong, Guwahati, Kolkata, Chennai and Bangalore. There were two additional outlets in Mumbai and Delhi, which were closed down in 1996 and 2002 respectively.

INDUSTRY OVERVIEW

The industry sector in India is broadly segmented into three categories namely:

- (1) Large-scale factory sector
- (2) Small-scale factory sector
- (3) Village and small industries sector

The units in the large-scale factory sector and small-scale factory sector are classified on the basis of the upper limit on investment in plant and machinery. The village and small industries sector is further classified into two broad categories namely, the modern small-scale industries and traditional industries. The modern small-scale industries mainly cover small-scale industry (SSI) units (both factory/non-factory sectors) and powerloom units. The subsectors of traditional industries comprise tiny and cottage industry segments like handloom, khadi and village industries, handicrafts, sericulture, silk and coir.

In the industrial and small-scale sector in India, NEHHDC primarily caters to the handicrafts and handloom industry.

Handicrafts Industry

The Handicrafts industry plays an important role in the country's economy, by providing employment to about 5.7 Mn persons (as of 2000-01), mainly in the rural and semi-urban areas. Further, the industry is also a significant contributor to the foreign exchange earned by the country and accounts for 4% of the total exports from India (during 1999-00). Handicrafts, are generally defined as "items made by hand, often with the use of simple tools, and are artistic and/or traditional in nature".

Broadly the Handicraft industry includes the following products:

- > Hand Knotted Carpets
- > Art metalware
- Woodware
- > Hand Printed Textiles
- > Embroidered and Crochet goods
- Shawls & Artwares
- > Zari and Zari Goods
- > Imitation Jewellery, and
- Miscellaneous Handicrafts

Of the above, the following products account for a large part of the domestic and export sales:

Carpets

Hand-knotted carpet is an old export product. The trade was relatively small until 1979, after which the demand for carpets made in South Asia increased rapidly. Until the mid-1990s, annual growth rate averaged almost 35% (year on year growth). There are six main carpet-producing countries in the world today namely, Iran, China, India, Pakistan, Nepal and Turkey. In terms of value of exports, Iran comes first, China second, and India third (with about 20% of the export market). However, in terms of volume India ranks first.

In India, the areas of manufacture are eastern Uttar Pradesh (around Benares, Mirzapur, Bhadohi towns), Jaipur, and Kashmir. Of these, UP dominates in terms of total volume of trade and employment. The production base consists of about 300,000 looms, providing direct employment to about 1.5 Mn weavers.

The competition between handmade and machine-made carpets is almost insignificant. This is because handmade carpets have distinctive texture, design, lustre, and finish. Also, product differentiation is a significant advantage of manual carpets. There is, however, significant competition between large and small producers, and between those who make finer goods and those who make rough goods that look like the finer ones. Rough goods include products made from coarser wool and simpler designs. Competition is also keen from non-wool carpets, those made from jute (there is a small but growing industry in West Bengal) and synthetic wool.

Art Metalware

An important item of the Indian handicraft exports is "art-metalware." These are mainly brass decorative objects with designs engraved on them by hand, a process known as *meenakari*. Engraving on cast metal is the craftsmanship component in the production of these articles. The other stages of production – billets manufacture, casting, mould-making, scraping, soldering, polishing, electroplating, etching on sheet metal as an alternative to engraving, etc. – are done in the same

places with the help of some machinery and machine tools. Production is concentrated in about a dozen cities and towns but by far the most important centre of this particular craft is Moradabad, a town in western Uttar Pradesh. The styles and finesse involved in the engraving craft are highly evolved and distinctively Indian.

Hand Printed Textiles (HP Textiles)

Indian hand-printed cloth has two major distinctions: ethnic designs, and, in at least some cases, eco-friendly natural dyes. Until recently, all printing was done with hand-carved wooden blocks. Today, there is a larger quantity of screen-printed articles. The industry was once widely spread out but is currently concentrated in some regions. The largest clusters today are mainly found in western India. These include the Rajasthan towns of Sanganer, Bagru, Pali and Jodhpur, the Gujarat centres of Ahmedabad, Jetpur and Dhamadka, and a few towns in western Uttar Pradesh. Today, certain types of printed textiles (such as the distinctive Kalamkari prints from South India) have highly specialised markets.

Embroidery and Crochet Goods

There are numerous embroidery traditions in India. Some of the best known are centred in Gujarat (at Banaskantha and Kutch districts), in western Rajasthan, in western UP, and in West Bengal. Of these, the most successful in export have been the western Indian crafts. The products of these areas include quilts, apparels containing mirror-work, chain stitch, crotchet and patchwork.

Handicrafts - Production and Growth

Individual or Master Craftsmen and Artisans mainly carry out production of Handicrafts. The industry is highly unorganised in nature. The Handicraft industry has seen significant growth in production, and the domestic market. Production grew from Rs. 1,04,109 Mn in 1997-98 to Rs. 1,63,404 Mn during 2000-01. The domestic market estimated to be the order of Rs. 70,700 Mn (2001-01) has witnessed a CAGR of 16% during the period 1998-2001. The domestic market, which accounted for 43 % of the total production during 2000-01, highlights the growing importance of the domestic market in the handicraft industry.

Table 1 - Handicrafts industry production & domestic market

(Rs. Mn)

	1997-98	1998-99	1999-00	2000-01
Estimated Production	104109.6	121754.3	139155.6	163404.4
Domestic Market	45359.5	51030.7	58559.3	70699.4

Source: Tenth Five Year Plan, Gol, 2001/ICRA

The geographical spread of artisans and craftsmen in India is as follows:

Table 2 - Spread of Artisans

(per cent)

Region	% of Artisans/Craftsmen in India
Uttar Pradesh	29
Northeastern States	22
West Bengal, Bihar, Orissa	21
Gujarat - Rajasthan	13
Other States	15

Source: Handmade in India, World Bank 2000/ICRA

Handicrafts - Marketing Channels

The various marketing channels that are being utilised for sales of these products in the domestic market can broadly be classified as following:

- > State / Central Government owned retail outlets
- Private sector retail outlets
- Markets / Exhibitions / Fairs / Haats / Crafts Museum
- Non Government initiatives / organisations
- Co-operatives

Most state governments as well as the central government have established retailmarketing companies (Handicrafts Development Corporations) whose prime objective is to undertake the procurement, market development and sale of handicraft products. The government handicraft organisations have together formed Council for Handicraft Development Organisations (COHANDS) which co-ordinates these efforts and provides assistance to the state government organisations.

The private sector retail outlets have also grown in recent years due to the growing demand from the tourists and domestic market. Successful private initiatives include stores such as Fab India, Bombay Stores, Anokhi, Cottage Industries Exposition (CIE) etc. Retailing of specific handicraft products near places of tourist interest has also grown. These outlets are small in nature and stock a limited number of low to medium value items.

Non-government organisations have also been making attempts to provide marketing support to craftsmen from remote areas, with the objective of improving the economic conditions of rural poor. Some successful NGOs include Banascraft, Rural Non-Farm Development Agency (RUDA), and Jawaja. NGOs are funded through grants from Central/State Governments and multilateral development agencies such as UNIDO, UNDP etc.

Handicrafts Export Scenario

Export of handicrafts accounts for about 4% to 5% of the total exports from the country. Handicraft exports have increased from Rs. 46,216 Mn in 1995-96 to Rs. 92,056 Mn during 2001-02, translating to a CAGR of 12.2%. Among the total handicrafts exports, carpets account for 26%, embroidery 21% and art metalwork 19%.

Table 3 - Export of Handicrafts

(Rs. Mn)

Product	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	CAGR
					į			for 1996-02
Carpets	14141.5	17795.9	17913.9	20139.4	21360.3	23151.5	24361.3	9.5%
Art Metalware	9249.4	9714.6	12146	13241.6	14971.8	17781.0	17589.0	11.3%

...contd.

Product	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	CAGR
				1				for
`								1996-02
Woodware	1534.6	2187	2218.22	860.4	3489.5	4344.4	4318.8	18.8%
MP Textiles	5077.6	6861	8382.4	10339.8	11580.5	12767.5	12215.9	15.8%
Embroidered & Crochet								
Goods	7858	10308.9	9907.5	11594.2	15843.6	19647.8	19319.7	16.2%
Shawls & Artwares	143.3	178.2	170.8	181.8	215	272	270.1	11.1%
Zari & Zari Goods	477.3	545.7	703.4	749.5	835.2	1423.2	1340.4	18.8%
Imitation Jewellery	775.8	486.5	980.3	1041	1136.4	1216.8	1175.3	7.2%
Misc. Handicrafts	6959.4	7870.2	9023.2	12575.7	11164	12100.8	11465.8	8.7%
Total Handicraft Exports	46216.9	55948	61445.7	70723.4	80596.3	88785	92056.3	12.2%
India's Exports	1063530	1188171	1301050	1397511	1595611	2035710	2090180	11.9%
Handicrafts as a %								
of the total exports	4.3%	4.7%	4.7%	5.0%	5.0%	4.4%	4.4%	

Source: Development Commissioner Handicrafts, Ministry of Textiles, 2002/ICRA

However, India remains a rather small supplier in the world market accounting for less than 2% of the world trade in this sub-sector (ITC Data 2000).

Direction of Exports

The world market for Indian handicrafts is overwhelmingly concentrated in USA, six european countries, Canada and Japan. The three most important markets for India's handicrafts are USA, Germany, and UK. Far behind these, but growing rapidly, are a few other countries of western europe, Japan, and Australia. In carpets, Germany has for long been the most important market for Indian goods. In recent years, there has been some diversification towards USA. The following table shows the countrywise share in India's exports:

Table 4 - Direction of Exports

(Per cent)

Country	Share in India's exports
USA	30

...contd.

Country	Share in India's exports
UK	11
Germany	11
France	5
Italy	4
Japan	4
Canada	3
Netherlands	. 2
Australia	. 2
South Africa	2
Switzerland	2
Others	24

Source: Development Commissioner Handicrafts 2002/ICRA

Organisation of the Handicrafts Sector in India

The organisation of the Handicraft sector can be classified as under:

- Organisation of the Administrative ministry (Ministry of Textiles) and various Central and State Government Agencies
- > Functional classification of the various institutions involved.

Organisation of the Administrative Ministry and Central and State Government Agencies

Development of Handicrafts is a concurrent subject. Therefore, both the central and state governments are actively involved in the development and promotion of the Handicraft industry. The Ministry of Textiles is the apex body of the Government of India that is responsible for the growth and promotion of the Handicraft sector. Its functions include overseeing the formulation and implementation of the policies and programmes for the development of the sector through its various support agencies and specialised services.

The Ministry of Textiles formulates and implements the policies through the office of the Development Commissioner (Handicraft), which is the primary

central agency/body responsible for the promotion and growth of the handicraft industry. The Development Commissioner, through the Ministry, co-ordinates with other Ministries/Departments/State Agencies on matters related to and concerning the Handicraft industry.

Handloom production and Growth

The total textile production in India was 42,034 Mn square meters in 2001-02. The products include Powerloom, Handloom, Knitted Fabrics, Khadi, Wool & Silk. 64% of the total production was from the powerloom sector, followed by 18% from the Handloom sector, as table 5 shows:

Table 5 - Total Production of Fabrics

 $(Mn \ sq. \ m.)$

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	CAGR
Powerloom Fabrics	19220	21309	22899	22475	24901	25473	26738	5.7%
Handloom Fabrics	7202	7456	7603	6792	7352	7506	7585	0.9%
Knitted Fabrics	5038	5533	6394	6276	6374	669 6	70 6 7	5.8%
Khadi, Wool & Silk	431	515	540	559	575	581	644	6.9%
Total	31891	34813	. 37436	36102	39202	40256	42034	4.7%

Source: Ministry of Textiles (Web site)/ICRA

Within handlooms, the production has been mainly in cotton fabrics (86%) followed by 100% non-cotton fabrics. Though the current production of blended fabrics is negligible, the segment has been witnessing high growth rates (during the period 1996-02 at 31.9%), as the following table shows:

Table 6 - Production of Handloom Fabrics

(Mn sq. m)

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	CAGR
Cotton	6239	6441	6699	5861	6376	6577	6698	1.2%
Blended	18	52	69	111	119	111	95	31.9%
100% non-cotton	945	963	835	820	857	818	792	-2.9%
Total	7202	7456	7603	6792	7352	7506	7585	0.9%

Source: Ministry of Textiles (Annual Reports)/ICRA

Due to the dispersed and unorganised nature of the industry, no official figures are available as regards the size of the domestic market of handlooms products. However, the industry representatives / players peg the figure to be the order of Rs 80,000 to 1,00,000 Mn.

Export of Textiles

Global trade in textile and clothing has increased from US\$ 310 billion (Bn) in 1996 to US\$ 334 Bn in 2000. USA, Japan and the Europe are the largest importers of textiles and clothing.

The share of textile exports in the total exports of India has shown a decreasing trend and currently stands at around 25% as the following table shows:

Table 7 - Export of Textiles vis a vis Total Exports

Year	Textile Exports (Rs. million)	Total Exports (Rs. million)	Textile Exports as % of Total Exports
1996-97	339202	1188171	28.5%
1997-98	364121	1301050	28.0%
1998-99	401716	1397511	28.7%
1999-00	455362	1595611	28.5%
2000-01	547988	2035710	26.9%
2001-02	513373	2090180	24.6%

Source: Compendium of Textile Statistics (2000), Textile Commissioner, Mumbai/ICRA

Within the textile sector, there are a number of products which include yarn, fabrics and made ups. The sector-wise break up for exports of textiles is given in the following table:

Table 8 - Export of Textiles

(Rs. Mn)

Item	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	CAGR
Readymade Garments	133241	144057	183636	206485	254431	238776	12.4%
Cotton Textiles	126566	129535	118684	134653	160310	146980	3.0%
Man-made Textiles	25613	30579	30276	37053	50031	51912	15.2%
Wool & Woolen Textiles	3680	4079	3139	2166	2852	2490	-7.5%
Silk Textiles	4572	6557	7497	10632	14462	13635	24.4%
Jute	5516	6944	5816	5446	6909	6119	2.1%
Coir	2165	2549	3166	2000	2208	2946	6.4%
Handicrafts	37849	39821	49502	56927	56795	50514	5.9%
Total	339202	364121	401716	455362	547998	513373	8.6%

Source: DGCI & S, Government of India/ICRA

Exports of handloom products constitute a small percentage (around 5%) of the total textile exports from the country.

Handlooms - Exports Scenario

Handloom exports consist of fabrics, floor coverings, made-ups and clothing accessories. Made-ups includes a range of products, such as table and bed linen, dish cloths, furnishing etc.

The total export of Handloom products has risen marginally from Rs. 18,300 Mn in 1997-98 to Rs. 20,649 Mn in 2001-02 at a CAGR of 4%. Among the various products, clothing accessories have witnessed the highest growth rates followed by made-ups. The following table illustrates:

Table 9 - Export of Handloom Products

(Rs. Mn)

Product	1997-98	1998-99	1999-00	2000-01	2001-02	CAGR
Handloom fabrics	4814.3	5035.8	4884.8	4896.2	4964.7	1%
Floor Coverings	3702.1	3197.5	3534.4	2983.1	2428.3	-10%
Clothing Accessories	350.4	248.5	333.6	573.1	539.7	11%
Made-ups	9433.7	10701.6	11047.6	12822	12716.7	8%
Total	18300.5	19183.4	19800.4	21274.4	20649.4	4%

Source: Handloom Export Promotion Council /ICRA

Europe and America are the largest export markets/destinations accounting for 47% and 34% respectively of total handloom exports from India during the period 2001-02 as shown in table 10:

Table 10 - Direction of Exports

(Per cent)

Country	Share in India's exports			
Europe	47			
America	34			
Asia	. 13			
Oceania	4			
Africa	2			

Source: EPCH/ICRA

Organisation of the Handloom Sector in India

The organisation of the Handloom sector can be classified as under:

- Organisation of the Administrative Ministry (Ministry of Textiles) and various Central and State Government Agencies
- > Functional classification of the various institutions involved

Organisation of the Administrative Ministry and Central and State Government Agencies

Handloom sector is a concurrent subject of the Central and State Governments. The Ministry of Textiles is the apex body within the Central Government that is responsible for the development of the Handloom sector.

The Ministry of Textiles is involved in policy formulation, regulation, and development, export promotion for the sector, and is assisted by a number of specialised agencies and institutions in implementing its policies. Within the Ministry of Textiles, development of the Handloom sector is led by the Development Commissioner (Handlooms).

The office of the Development Commissioner for Handlooms is responsible for implementation of various schemes for the promotion and development of handloom sector and has been providing assistance to handloom weavers in a variety of ways.

[For a detailed sector analysis, please refer to the Industry Review chapter in Disinvestment Commission's recommendation on the Handicrafts and Handlooms Export Corporation of India Ltd. (HHEC), Report No.XIX; website: www.disinvest.nic.in].

OPERATING PERFORMANCE

The operating results of NEHHDC for the last five years are as follows:

Table 11 - Operating results for the last five years

(Rs. Mn)

	1998-99	1999-00	2000-01	2001-02	2002-03
Operating income	29.83	46.35	54.77	67.69	57.50
Purchases & payments	21.52	34.79	40.18	49.85	41.45
Employee costs	14.86	18.98	18.15	18.38	19.00
General & administration expenses	4.90	5.49	7.15	9.16	8.66

...contd.

	1998-99	1999-00	2000-01	2001-02	2002-03
Selling & distribution expenses	3.20	4.96	6.48	8.34	7.36
OPBDIT	-14.75	-17.95	-17.29	-18.17	-19.08
OPBDIT Margin	-49.5%	-38.7%	-31.6%	-26.8%	-33.2%

Operating income has increased at a CAGR of 18% between 1998-99 and 2002-03. Raw material costs have increased at the same rate. The company, despite making losses, has seen an increase in manpower costs at a CAGR of 6%. The increase in salaries in the year 1999-00 is mainly responsible for this. Also the workforce of the mechanised Dye House (which was closed on government's directions) has been redeployed to various emporia and the CFC. This workforce comprising 62 employees continues to be a drain on the corporation's resources.

Selling and distribution expenses grew at a CAGR of 23% in the last five years and have more than doubled. General and administrative expenses have grown at 15% in the same period.

Table 12 -Trends in share of key cost heads in Operating income

(As % of operating income)

	1998-99	1999-00	2000-01	2001-02	2002-03
Purchases & payments	72.2	75.1	73.4	73.7	72.1
Employee costs	49.8	40.9	33.1	27.2	33.1
General & administration expenses	16.4	11.8	13.0	13.5	15.1
Selling & distribution expenses	10.7	10.7	11.8	12.3	12.8

Source: ICRA

The main factor responsible for increase in general and administration expenses has been the increasing cost incurred on organising exhibitions. This has increased from Rs. 0.6 Mn in 1998-99 to Rs. 3.71 Mn in 2002-03 and mainly includes cost of hiring the exhibition venue, transportation, cost of packing materials etc. These expenses are non-reimbursable by the government. Rise in rebates and discounts are the major factor for increase in selling and distribution expenses.

These have more than doubled in the last five years. The corporation has had to resort to rebates and discounts in order to boost sales during the exhibitions. The following table illustrates:

Table 13 - Key overheads responsible for losses

(Rs. Mn)

	1998-99	1999-00	2000-01	2001-02	2002-03
Exhibition expenses	0.6	1.2	2.2	4.0	3.7
Rebates and discounts	3.0	4.8	6.2	8.1	7.2

Source: ICRA

FINANCIAL PERFORMANCE

Profitability trends for the last five years are given in the following table:

Table 14 - Profitability trends for the last five years

(Rs. Mn)

	1998-99	1999-00	2000-01	2001-02	2002-03
OPBDIT	-14.75	-17.95	-17.29	-18.17	-19.08
Interest & finance charges	0.06	0.10	0.07	0.13	0.13
OPBDT	-14.81	-18.05	-17.36	-18.30	-19.21
Depreciation	0.67	0.62	0.57	0.54	0.52
OPBT	-15.48	-18.66	-17.93	-18.84	-19.73
Non-operating income-	1.26	0.81	1.51	1.58	1.71
APBT	-14.23	-17.85	-16.43	-17.27	-18.01
Net worth	-52.48	-70.70	-86.82	-103.30	-121.53
Net profit margin	-47.7%	-38.5%	-30.0%	-25.5%	-31.3%
Asset turnover ratio	Ž.1	3.3	3.9	4.8	4.1
Total debt	69.4	92.3	105.2	124.7	151.8
Interest coverage ratio					
(OPBDIT/Interest & finance charges)	-237.9	-172.5	-247.0	-142.0	-151.5

Source: ICRA

The company has been making operating losses for the last several years. This has wiped out the entire net worth of the company. In the last five years, the interest charges of the company have more than doubled. The company's long term borrowings are from the GoI and these have increased from Rs. 58.9 Mn in 1998-99 to Rs. 141.2 Mn in 2002-03. The increase in loans has been in the form of loans given by GoI against the cash losses. The company's asset turnover ratio has improved marginally.

The company has not made provisions for interest on GoI loans and penal interest thereon, on the ground that the proposal for conversion of entire amount of loan and interest into grant/equity/write off has been submitted to the Government. The total provision required in the balance sheet, for the accrued interest upto 2001-02, is Rs. 135.18 Mn, which means that the balance sheet of 2001-02 is understated by this amount. The unprovided interest for the year 2001-02 is Rs. 17.13 Mn, which means that the loss for the financial year 2001-02 has been understated by this amount. The company has also not made provisions for the interest on bank loan taken. At a rate of 18% p.a. the total provision required for this upto 2001-02 works out to Rs. 22.7 Mn. The interest on the bank loan for the year 2001-02 is Rs. 5.1 Mn, which means that the losses for the year 2001-02 have been further understated by this amount.

Given the negative net worth and operating losses of the company, profitability indicators like ROCE and RONW are not of any relevance to the company.

Liquidity situation

As Table 15 would show the company's liquidity position is not satisfactory. The ratio of net working capital to operating income was as high as 59% in 2002-03. The receivables' days have fallen from 12 days in 1998-99 to 7 days in 2002-03. The payables' days have fallen from 61 days to 58 days in the same period. Though the inventory days have fallen, the company continues to hold large inventory, especially those of finished goods.

Table 15 - Key liquidity indicators

	1998-99	1999-00	2000-01	2001-02	2002-03
Current ratio	1.03	1.22	1.10	1.17	1.35
Receivables (days)	12	8	7	6	7
Total inventory days	73	54	44	35	39
NWC/Operating income (%)	53.3	40.7	39.1	42.5	59.0
Payables (days)	61	41	40	28	58

Financial Statement

The Profit and Loss Account and Balance Sheets for the last five years are given below:

Table 16 - Profit & Loss Statement

(Rs. Mn)

	1998-99	1999-00	2000-01	2001-02	2002-03
Domestic Sales	29.75	46.32	54.77	67.69	57.50
Export Sales	0.00	0.00	0.00	0.00	0.00
Gross Sales	29.75	46.32	54.77	67.69	57.50
Traded Goods Sales	0.00	0.00	0.00	0.00	0.00
Less: Excise Duty	0.00	0.00	0.00	0.00	0.00
Net Sales	29.75	46.32	54.77	67.69	57.50
Other Related Income	0.08	0.03	0.00	0.00	0.00
OPERATING INCOME	29.83	46.35	54.77	67.69	57.50
Materials cost	21.52	34.79	40.18	49.85	41.45
Purchases	0.00	0.00	0.00	0.00	0.00
Consumable Stores	0.00	0.00	0.00	0.00	0.00
Power and Fuel	0.00	0.00	0.00	0.00	0.00
Employee Costs	14.86	18.98	18.15	18.38	19.00
Other manufacturing expenses	0.09	0.09	0.10	0.12	0.10

· ...contd.

	1998-99	1999-00	2000-01	2001-02	2002-03
COST OF GOODS SOLD	21.62	34.87	40.28	49.97	41.55
General & Administrative Expenses	4.90	5.49	7.15	9.16	8.66
Selling & Distribution Expenses	3.20	4.96	6.48	8.34	7.36
COST OF SALES	44.58	64.30	72.06	85.86	76.58
OPBDITA	-14.75	-17.95	-17.29	-18.17	-19.08
.Interest and Finance Charges	0.06	0.10	0.07	0.13	0.13
OPBDTA	-14.81	-18.05	-17.36	-18.30	-19.21
Depreciation	0.67	0.62	0.57	0.54	0.52
ОРВТ	-15.48	-18.66	-17.93	-18.84	-19.73
Non - operating Income	1.26	0.81	1.51	1.58	1.71
Cash Adjustments	0.00	0.00	0.00	0.00	0.00
Extraordinary Income/Expense	0.00	0.00	0.00	0.00	0.00
APBT	-14.23	-17.85	-16.43	-17.27	-18.01
Tax: Current/deferred	0.00	0.00	0.00	0.00	0.00
APAT	-14.23	-17.85	-16.43	-17.27	-18.01

Table 17 - Balance Sheet

(Rs. Mn)

Assets	1998-99	1999-00	2000-01	2001-02	2002-03
Gross Block	14.09	14.09	14.09	14.12	14.13
Less: Revaluation Reserve	0.00	0.00	0.00	0.00	0.00
Gross Block	14.09	14.09	14.09	14.12	14.13
Less : Accumulated Depreciation	8.64	9.25	9.82	10.37	10.89
Net Block	5.45	4.84	4.27	3.75	3.24
Capital Work in Progress					1.16
NET FIXED ASSETS	5.45	4.84	4.27	3.75	4.40
Investments in Quoted Shares	0.00	0.00	0.00	0.00	0.00
Investment in Co-operative Society	0.00	0.00	0.00	0.00	0.00
Investment in debt/MF	0.00	0.00	0.00	0.00	0.00

...contd.

Assets	1998-99	1999-00	2000-01	2001-02	2002-03
TOTAL INVESTMENTS	0.00	0.00	0.00	0.00	0.00
Stores and spares / Loose tools	0.14	0.14	0.14	0.14	0.14
Work in Process					
Finished Goods	8.13	8.75	7.86	7.45	7.29
Raw Material & Packing Material	0.65	0.65	0.65	0.65	0.65
TOTAL INVENTORIES	8.92	9.54	8.64	8.24	8.08
Receivables (> than 6 months)	1.00	1.00	1.03	1.03	1.08
Others	0.00	0.00	0.00	0.00	0.00
TOTAL RECEIVABLES	1.00	1.00	1.03	1.03	1.08
Cash and Bank Balances	12.97	11.02	13.25	15.46	17.99
Advances recoverable in cash/kind/					
value to be received	9.65	12.31	16.26	23.47	31.50
Remittance in Transit	0.00	0.57	0.41	0.25	0.58
Securities Deposit	0.10	0.12	0.17	0.20	0.19
TOTAL CURRENT ASSETS	32.63	34.55	39.75	48.65	59.42
TOTAL ASSETS	38.08	39.39	44.02	52.40	63.82
LIABILITIES					
Equity Share Capital	20.00	20.00	20.00	20.00	20.00
Capital Reserve	13.61	13.61	14.49	15.94	15.94
Profit & Loss Account	-86.08	-104.31	-121.30	-139.24	-157,47
TANGIBLE NET WORTH	-52.48	-70.70	-86.82	-103.30	-121.53
Loans from GoI					
Dye House	11.65	11.65	11.65	11.65	11.65
Handloom Scheme	3.50	3.50	3.50	3.50	3.50
Cash Loss	43.72	66.62	79.52	99.02	126.10
TOTAL LONG TERM DEBT	58.87	81.77	94.67	114.17	141.25
Cash Credit	10.52	10.52	10.52	10.52	10.52
TOTAL SHORT TERM DEBT	10.52	10.52	10.52	10.52	10.52

Assets	1998-99	1999-00	2000-01	2001-02	2002-03
TOTAL DEBT	69.39	92.29	105.19	124.69	151.77
Sundry creditors (Head Office)	3.57	3.91	4.41	3.87	6.63
Sundry creditors (Dye House)	0.08	0.08	0.08	0.08	0.08
Other liabilities	2.03	1.79	1.79	2.45	2.21
Outstanding Liabilities	15.35	12.03	19.38	24.62	24.66
Remittance in Transit	0.14	0.00	0.00	0.00	0.00
TOTAL CURRENT LIABILITIES	21.18	17.81	25.66	31.02	33.59
TOTAL LIABILITIES	38.08	39.39	44.02	52.40	63.82

SWOT ANALYSIS

Strengths

- Government backed marketing
- Reasonable marketing setup of emporia, warehouses, exhibitions, expos, fairs etc
- Strong traditions of work in cane and bamboo and handlooms
- Strong lineage in quality design and workmanship
- Products have huge diversity in design, techniques, weave, colour

Weaknesses

- Weak production base widely dispersed across the states, and highly unorganised
- Too few commercial artisans, weavers and entrepreneurs at present. Hence, not much of production happening for commercial purposes. Bulk of production of cane and bamboo basketry and other items and handloom fabric and made-ups for self / family consumption
- Craftsmen scattered all across the region, making collection of items from them difficult and expensive

- Low productivity inherent to traditional or improvised tools for cane and hamboo as well as to traditional looms
- Poor transport/haulage infrastructure
- Low penchant/motivation to pick up crafts/weaving, for income augmentation or means of sustenance
- Low value of items
- Products are very labour intensive but with low paying/low wage element
- Unattractive, unfashionable pursuit for middle class educated youth
- Earnings per day compare very poorly even with menial occupations
- Fragile nature of items and at times vulnerable weather conditions like humidity
- Absence of captive segment of population / labour force who by birth or class work in cane and bamboo sector or handloom sector

Opportunities

- Fair-sized market for cane & bamboo items, furniture and handlooms all over the country provided design and quality parameters met
- Scope of increasing production vigorously motivate and train youth already exposed to cane & bamboo crafts and handloom weaving

Threats

- Very low percentage of commercial looms
- Depletion in availability of cane and a disproportionate rise in its price
- Powerlooms are a threat of NEHHDC's handlooms business, as they out perform handlooms when it comes to mass production with comparatively easier designs and lower costs

DISINVESTMENT CONSIDERATIONS

As per the stated disinvestment policy guidelines of the government, Gol's stake in non-strategic businesses should be reduced to 26% or below. Since NEHHDC is in a business that is 'non-strategic' in nature, policy guidelines do not restrict its disinvestment.

Having said this, the issue of disinvestment of NEHHDC is to be considered in the following context:

- ☐ The criticality of the developmental and social role being played by the organisation; and
- □ Economic and commercial rationale.

Developmental role of NEHHDC - How critical is it?

Before the importance of the developmental and social role being played by the NEHHDC is evaluated, it would be essential to understand the focus / direction and objective of the various policies being implemented by the GoI for the sustained and long-term promotion and development of the handloom and handicraft sector. Some of the key objectives of the various policies currently being pursued by GoI are as under:

- ☐ To ensure easy availability of credit to the industry
- Provide assistance to the industry in developing the domestic and export markets
- ☐ Ensure reasonable and better returns to artisans and weavers for their products
- □ To promote Research and Development, including development of new designs and products
- ☐ Ensuring availability of raw materials at reasonable and affordable prices
- Development of Infrastructure for the industry in terms of setting up Weaver Service Centres (WSCs) etc.

NEHHDC was established in 1977, with the objective of improving the marketability of handicraft and handloom products from the northeast. Its objectives were to

encourage the commercial production of handicrafts and handlooms in the northeast and market them through its network of sales offices, emporia, fairs, exhibitions etc.

Even after more than 25 years since inception, the company has been able to attain a turnover of only Rs. 60 Mn. Moreover, the company has not been able to create any major success stories in promoting any particular handicraft/handloom item. It has seen a huge drop, by as much as 70 - 90%, of artisans and weavers availing the benefits of its services. Most of these craftsmen have reportedly moved to menial jobs in small towns and cities that have proved to be more remunerative than producing traditional craft items.

GoI currently has a number of Institutions for the implementation of its polices in the handicraft and handloom industry. Each of the states in the Northeast (except Arunachal Pradesh) has its own Handloom and Handicraft Development Corporation that performs functions that are similar in nature to NEHHDC. Thus, on many occasions there is a possibility that there is duplication of services offered.

It is also pertinent to note that NEHHDC's ability to promote and develop the handloom and handicraft segments in the northeast by channelling its own funds remains limited given its weak financial position. The company will continue to post operational level losses.

Thus it may be concluded that NEHHDC's role in the product and market development for industry in the northeast has not been significant in the past and is unlikely to be crucial in the future. There exists a number of other government institutions/agencies, including development corporations of states and NGOs which are actively pursuing the implementation of the GoI's policy and its developmental efforts in the sector.

It is evident that disinvestment of NEHHDC would not in any way affect the social and developmental efforts of GoI towards the sector in the Northeast and that, therefore, there is no rationale for GoI to be in this sector through NEHHDC.

Economic and Commercial Rationale

NEHHDC is a trading company and is, therefore, exposed to the commercial risks associated with such a business. The company's turnover is very modest and its share either in total handloom or handicrafts industry is negligible. In both the businesses, NEHHDC remains a marginal player, and with non-existent exports.

NEHHDC has been making operating level losses since inception and its financial performance has been deteriorating over the years. The company continues to depend on the GoI for its fund requirements in the form of loans to set off cash losses. The possibility of NEHHDC incurring higher losses cannot be ruled out, which the GoI would have to bear.

Therefore, from the point of view of both the developmental and commercial considerations, there is no rationale for NEHHEC to remain as a government company.

RECOMMENDATIONS

Under the circumstances, the Commission recommends that the GoI should divest its entire shareholding in NEHHDC to a strategic buyer through the competitive bidding route. In order to make the company attractive for disinvestment, the GoI may consider the following capital restructuring measures in consultation with prospective bidders: writing off of all losses, and conversion of GoI debt (including interest accrued and due) into equity.

In case there is no buyer interest for the company, NEHHDC should be wound up.

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