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**MINISTER OF
HEAVY INDUSTRIES & PUBLIC ENTERPRISES
GOVERNMENT OF INDIA
NEW DELHI-110 011**

Foreword



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VILASRAO DESHMUKH

The Public Enterprises Survey (2008-09) is the 49th Survey in the series being laid in the Parliament. It presents an overview of the performance of Central Public Sector Enterprises (CPSEs). The CPSEs as a group continued to perform well during 2008-09. In line with GDP growth (at market price) of 12.7 per cent during 2008-09, the turnover in CPSEs grew by 15.43 per cent during 2008-09 over the previous year.

2. It is increasingly being recognized that “efficiency” and “profitability” are ownership neutral. The net profit of profit making CPSEs went up from Rs. 91,571 crore in 2007-08 to Rs. 98,652 crore in 2008-09. The loss of loss making CPSEs, on the other hand, stood at Rs. 14424 crore in 2008-09 compared to Rs.10,257 crore in 2007-08. Higher price of aviation fuel and the global slow down have had an adverse impact on CPSEs, such as, NACIL and Air India Charters Ltd. whose operating losses increased during the year.

3. The CPSEs have been serving the various macro-economic objectives of higher economic growth, equilibrium in balance of payments, infrastructure development and lower prices. In this respect, they are a distinct entity of corporate India. Despite meeting these objectives, the Navaratna CPSEs constitute the elite companies of India in sectors like coal, petroleum, steel, heavy engineering, power supply, telecommunication and transportation.

4. The pattern of investment in CPSEs is more-or-less equally divided between manufacturing (26.70%), mining (25.30%), electricity (24.23%), and services (23.52%). While investment in mining, manufacturing and electricity during 2008-09 grew by 12.71 per cent, 14.08 per cent and 15.07 per cent respectively, investment in service sector grew by 11.09 per cent. Amongst the listed companies on the stock exchanges, moreover, the CPSEs have become an important choice of investment for both global and domestic investors.

5. I congratulate Shri Bhaskar Chatterjee, Secretary, Department of Public Enterprises and his team of officers & staff involved in preparing the Survey.

(Vilasrao Deshmukh)

February, 2010
New Delhi



राज्य मंत्री
भारी उद्योग एवं लोक उद्यम मंत्रालय
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Preface



अरुण यादव
ARUN YADAV

The Estimates Committee (2nd Lok Sabha), in their 73rd Report (1959-60), had recommended that in addition to the individual annual report of each enterprise laid on the Table of both the Houses of Parliament, a separate comprehensive report should be submitted to the Parliament indicating the Government's total appraisal of the working of public enterprises. Accordingly, the first "Annual Report" (Public Enterprises Survey) was prepared by the erstwhile Bureau of Public Enterprises (now Department of Public Enterprises) in 1960-61 giving a consolidated picture of the performance of the Central Public Sector Enterprises (CPSEs).

2. The Estimates Committee (5th Lok Sabha), in their 24th Report (1972-73), recommended, inter-alia, to include aspects like pricing of goods (& services) manufactured by these enterprises and their capacity utilization etc. The Committee on Public Sector Undertakings (COPU) in their 40th Report on 'Role and Achievements of Public Sector Undertakings', reiterated these recommendations. The content of the Public Enterprises Survey has accordingly undergone improvement over the years.

3. The Central Public Sector Enterprises (CPSEs) are large and complex organizations employing a substantial workforce. These companies are spread over the length and breadth of the country, are engaged in diverse sectors of the economy and fulfill both economic and social objectives. The CPSEs have served the country well and continue to play an important role in the overall development.

4. The Department of Public Enterprises acknowledges the cooperation extended by all the Industries Departments CPSEs for providing financial and other data for the preparation of Public Enterprises Survey (2008-09). The support provided by Industry Information System Division of National Informatics Centre (NIC) in processing and tabulating the large data base is duly appreciated. I also take this opportunity to place on record the efforts put in by Shri Bhaskar Chatterjee, Secretary, Department of Public Enterprises and all his Officers & Staff of the Department for preparing this Survey.

(Arun Yadav)

February, 2010
New Delhi



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GOVERNMENT OF INDIA
DEPARTMENT OF PUBLIC ENTERPRISES
MINISTRY OF HEAVY INDUSTRIES &
PUBLIC ENTERPRISES

Introduction



॥ कः रः ॥ कः रः ॥
Bhaskar Chatterjee, I.A.S.
SECRETARY

The Department of Public Enterprises (DPE) under the Ministry of Heavy Industries and Public Enterprises is the nodal Department in the Government of India to provide, inter alia, an overview on the financial and physical performance of Central Public Sector Enterprises (CPSEs). The Public Enterprises (PE) Survey is a consolidated report on the performance of all CPSEs, which is laid in the Parliament every year.

2. Besides Statutory Corporations, the CPSEs comprise those Government Companies (defined under Section 617 of the Companies Act, 1956) wherein more than 50% equity is held by the Central Government. The subsidiaries of these companies are also categorized as CPSEs. The Survey, however, does not cover departmentally run public enterprises, banking institutions and enterprises wherein Central Government equity is less than or equal to 50%.

3. The PE Survey (2008-09) is the 49th Survey Report in the series. The basic data for the Public Enterprises Survey is compiled based on the Annual Reports / Accounts for the financial year 2008-09 provided by the individual CPSEs. The data so compiled are analyzed and presented in three separate volumes. **Volume-1** contains a macro appraisal of the performance of the CPSEs in terms of broad aggregates of physical and financial parameters. **Volume-2** contains analysis of the performance of CPSEs sector wise, cognate group wise and individual CPSE wise. **Volume-3** contains enterprise-wise analytical data of summarized balance-sheet, summarized profit and loss account and important management ratios. Important financial and accounting terms used in the 'Survey' are as per schedule VI of the Companies Act, 1956, unless otherwise defined in the "glossary of terms" given on the last page of this volume.

4. There were 246 CPSEs (excluding 7 Insurance Companies) falling within the scope of the Survey as on 31.3.2009. During 2008-09, four enterprises have either been closed or merged with their holding company or changed their public sector character either on account of Government shareholding getting reduced to less than 51% or on account of transfer of ownership to private sector due to the decisions taken by the concerned administrative Ministries or closed down by the Ministry of Labour or closed by the holding company or merged with the holding company.

5. During 2008-09 four enterprises viz Bongaigaon Refinery & Petrochemicals Ltd. (merged with its holding company i.e. Indian Oil Corporation Ltd.) Brushware Ltd. (closed by the order of Ministry of Labour), Byrnihat Transmission Company Ltd. /a shell company (closed by its holding company i.e. Power Grid Corporation of India Ltd.) and Jharkhand Integrated Power Ltd. (transferred to Reliance Power Ltd.) ceased to exist as independent companies. These four enterprises have been, therefore, not included in the Public Enterprises Survey 2008-09.

6. During the year, eight new public sector enterprises, namely, Bokaro Kodarma Maithon Transmission Company Ltd., CREDA-HPCL Biofuel Ltd., GAIL Gas Ltd., Ghogarpalli Integrated Power Company Ltd., IAL Airport Services Ltd. Jagdishpur Paper Mills Ltd., NLC Tamilnadu Ltd. and Sakhigopal Integrated Power Company Ltd. have been added to the list of CPSEs as per the information received from the concerned administrative Ministries/ Departments. All these newly added PSEs are yet to commence their commercial operations.

7. The administrative control of Bharat Wagon & Engineering Company Ltd. has been transferred to the Ministry of Railways from Department of Heavy Industries. PFC Consulting Ltd. became operative during the year, which was shown in the PE Survey 2007-08 as 'under construction' category. This company features now under 'Industrial Development and Consultancy' cognate group.

8. Educational Consultants (India) Ltd., Hindustan Latex Ltd., Kudremukh Iron Ore Company Ltd. and National Mineral Development Corporation Ltd. have changed their names as EdCIL (India) Ltd., HLL Lifecare Ltd., KIOCL Ltd. and NMDC Ltd. respectively.

9. The present Survey, moreover, incorporates audited figures in respect of CPSEs whose accounts were treated as provisional in the Public Enterprises Survey 2007-08. The figures relating to 2007-08 as appearing in the last year's Survey have, therefore, undergone revision.

10. The status of 253 CPSEs discussed in the Public Enterprises Survey 2008-09 (including Insurance Companies) is shown below:

Sl. No.	Status of Enterprises	CPSEs
1.	Operating Enterprises	213
2.	Enterprises which are yet to commence commercial operation	33
3.	Insurance Companies	7
Total :		253

11. Ministry/Department-wise, sectoral /group-wise and state-wise (as per their Registered Offices), separate lists of CPSEs are given in the appendices I, II and III respectively at the end of this Volume. Appendix IV contains the list of CPSEs whose data are provisional; this includes five enterprises which did not supply information till the cut-off date for receiving the information in the Department (viz. British India Corporation Ltd., IDPL (Tamilnadu) Ltd., Hooghly Dock & Port Engineers Ltd., Nagaland Pulp & Paper Mills Ltd. and Orissa Drugs & Chemicals Ltd).

12. We are grateful to the Ministries/Departments for making available the requisite information, on CPSEs under their administrative control, for the PE Survey. The technical support was provided by the Public Enterprises Division of the NIC, Government of India. The Survey has been prepared under the overall supervision of Economic Adviser, Department of Public Enterprises.

I may, furthermore, mention that the Survey is available on-line, and may be accessed on www.dpe.nic.in. Suggestions to improve the Public Enterprises Survey are welcome.


(**Bhaskar Chatterjee**)

February, 2010
New Delhi

On the eve of the First Five Year Plan, there were 5 Central Public Sector Enterprises (CPSEs) with a total investment of Rs. 29 crore. Both the number of enterprises and the total investment in CPSEs saw an increase over the years. On 31st March, 2009, there were as many 246 CPSEs (excluding 7 Insurance Companies) with a total investment of Rs.528951 crore.

Public sector enterprises have been set up to serve the broad macro-economic objectives of higher economic growth, self-sufficiency in production of goods and services (wherever so desired), long term equilibrium in balance of payments and low and stable prices.

A large number of CPSEs have been set up as Greenfield projects consequent to the initiatives taken during the Five Year Plans. CPSEs, such as National Textile Corporation Ltd., Coal India Ltd. (and its subsidiaries) have, however, been taken over from the private sector consequent to their 'nationalization'. Industrial units, such as, Indian Petrochemicals Corporation Ltd., Modern Food Industries Ltd., Hindustan Zinc Ltd., Bharat Aluminum Company Ltd., Maruti Udyog Nigam Ltd. etc. on the other hand, which were CPSEs earlier ceased, to be CPSEs after their 'privatization'.

Along with other public sector majors, such as, State Bank of India in the banking sector, Life Insurance Corporation in the insurance sector, Indian Railways in transportation, the CPSEs are the leading companies of India with significant market-shares in sectors such as petroleum products, (eg. ONGC, GAIL and Indian Oil), mining (eg. Coal India Ltd. and NMDC Ltd.), power generation (eg. NTPC Ltd. and NHPC), power transmission (eg. POWERGRID), nuclear energy (eg. Nuclear Power Corporation of India Ltd.), heavy engineering (eg. BHEL), aviation industry (eg. Hindustan Aeronautics Ltd. and NACIL), storage and public distribution system (eg. Food Corporation of India and Central Warehousing Corporation),

shipping and trading (eg. Shipping Corporation of India Ltd. and State Trading Corporation Ltd.) and telecommunication group (eg. BSNL and MTNL).

With economic liberalization, post-1991, sectors that were exclusive preserve of the public sector enterprises were opened to the private sector. The CPSEs, as such, are faced with competition from both the domestic private sector companies (some of which have grown very fast) and the large multi-national corporations (MNCs). These large corporations enjoy the advantage of 'economies of scale' as well as have superior technology. Competition in the markets has, therefore, made the CPSEs also spend on Research & Development (R&D), go for technological collaboration and look for growth opportunities within India and abroad. In the case of some CPSEs, however, turnover has been declining over the years and their market share has got much reduced. CPSEs like National Textile Corporation Ltd. Cement Corporation of India Ltd., HMT Ltd. have currently a market share of less than five percent in the domestic market.

1.1 Indian Economy (2008-09) and CPSEs

In line with the GDP growth of 12.7 per cent (at current market price) in 2008-09, the aggregate turnover of all the CPSEs grew by 15.4 per cent. While the global slowdown and high volatility in international crude/ oil prices affected adversely industries, such as, steel, crude oil, transport services and consumer goods, the high GDP growth (in the home market) led to significant increase in turnover of heavy engineering, power generation & transmission, transportation equipments and fertilizer during the year. Profits (& losses) of the different CPSEs did not necessarily correspond to increase or decrease in turnover, as several factors came into play like higher input costs, lower prices and exchange rate fluctuations etc. Major highlights of performance of all CPSEs for the year 2008-09 are given in Box 1.

Macro view of the performance of CPSEs during the last ten years is shown in Box 2.

BOX - 1

1.1.1 HIGHLIGHTS

- **Total paid up capital** in 246 CPSEs as on 31.3.2009 stood at Rs.138843 crore compared to Rs.131232 crore as on 31.3. 2008, showing a growth of 5.80%.
- **Total Share application money pending allotment** as on 31.3.2009 stood at Rs.3867 crore in 41 CPSEs compared to Rs.3090 crore in 40 CPSEs as on 31.3.2008, showing a growth of 25.14%.
- **Total investment** (equity plus long term loans) in all CPSEs stood at Rs.528951 crore as on 31.3.2009 compared to Rs.455367 crore as on 31.3.2008, recording a growth of 16.16%.
- **Capital Employed** (net block plus working capital) in all CPSEs as on 31.3.2009 stood at Rs.794105 crore compared to Rs.724406 crore as on 31.3.2008, showing a growth of 9.62%.
- **Total turnover** of all CPSEs during 2008-09 was Rs.1263405 crore compared to Rs.1094484 crore in the previous year, showing a growth of 15.43 %.
- **Total income** of all CPSEs during 2008-09 stood at Rs.1307366 crore compared to Rs.1102468 crore in 2007-08, showing a growth of 18.59%.
- **Profit** of profit making CPSEs stood at Rs.98652 crore during 2008-09 compared to Rs.91571 crore in 2007-08, showing a growth of 7.73%.
- **Loss** of loss incurring CPSEs stood at Rs.14424 crore in 2008-09 compared to Rs.10257 crore in 2007-08, showing an increase in loss by 40.63%.
- **Reserves & Surplus** of all CPSEs went up from Rs.485540 crore in 2007-08 to Rs.535840 crore in 2008-09, showing an increase by 10.36%.
- **Net worth** of all CPSEs went up from Rs.520968 crore in 2007-08 to Rs.588217 crore in 2008-09 registering a growth of 12.91%.
- **Contribution of CPSEs to Central Exchequer** by way of excise duty, customs duty, corporate tax, interest on Central Government loans, dividend and other duties and taxes declined from Rs.165994 crore in 2007-08 to Rs.151728 crore in 2008-09, showing a decrease of 8.59%.
- **Foreign exchange earnings** through exports of goods and services increased from Rs.67678 crore in 2007-08 to Rs.74184 crore in 2008-09, showing a growth of 9.61%.
- **Foreign exchange outgo** on imports and royalty, know-how, consultancy, interest and other expenditure went up from Rs.368228 crore in 2007-08 to Rs.428821 crore in 2008-09, showing a growth of 16.46%.
- **CPSEs employed** 15.35 lakh people (excluding casual workers and contract labours) in 2008-09 compared to 15.66 lakh in 2007-08.
- **Salary and wages** went up in all CPSEs from Rs.64300 crore in 2007-08 to Rs.82735 crore in 2008-09, showing a growth of 28.67%.
- **Total Market Capitalisation** (M_Cap) of 41 listed CPSEs, based on the stock price in Mumbai Stock Exchange, decreased from Rs 1120752 crore as on 31.03.2008 to Rs.813530 crores as on 31.03.2009. Market Capitalisation of CPSEs during this period, therefore, declined by 27.41%
- **M_Cap** of CPSEs as per cent of BSE M_Cap went up from 21.80% as on 31.3.2008 to 26.36% as on 31.3.2009.

BOX - 2

1.1.2 MACRO VIEW OF PERFORMANCE OF CENTRAL PUBLIC SECTOR ENTERPRISES

(Rs. in crore)

Particulars	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
No. of operating Enterprises	232	234	231	226	230	227	226	217	214	213
Capital employed	302947	331372	389934	417160	452336	504407	585484	661338	723719	793096
Turnover	389199	458237	478731	572833	630704	744307	837295	964890	1094484	1263405
Total Income	403810	479838	498315	548912	613706	734944	829873	970356	1102467	1307366
Net Worth	160674	171406	225472	241846	291828	341595	397275	454134	518530	584072
Profit before dep, Int, tax & EP (PBDITEP)	62212	69287	89550	101691	127320	142554	150262	177990	195169	187431
Depreciation	19942	20520	26360	28247	31251	33147	34848	33141	36680	36788
DRE/Prel. Exps. Written Off	–	–	–	905	1025	986	992	5841	5802	7661
Profit before int., tax & EP (PBITEP)	42270	48767	63190	72539	95039	108420	114422	139008	152687	142982
Interest	20233	23800	24957	23921	23835	22869	23708	27481	32200	40330
Profit before Tax & EP (PBTEP)	22037	24967	38233	48618	71144	85550	90714	111527	120487	102652
Tax provisions	7706	9314	12255	17499	22134	21662	24370	34352	40739	33700
Net Profit before EP	–	–	–	31119	49010	63889	66344	77175	79748	68952
Net Extra Ordi. Items & Prior Period Adj.	–	–	–	–1225	–3933	–1075	–3192	–3880	–1566	–15276
Profit of profit making CPSEs	24633	28494	36432	43316	61606	74432	76382	89581	91571	98652
Loss of loss incurring CPSEs	10302	12841	10454	10972	8522	9003	6845	8526	10257	14424
Profit making CPSEs (No.)	126	123	120	119	139	143	160	154	161	158
Loss Incurring CPSEs (No.)	105	110	109	105	89	73	63	61	52	54
CPSEs Making no profit/loss	1	1	2	2	2	–	1	1	1	1
No. of Operating CPSEs not furnished information	–	–	–	–	–	–	2	1	–	*5
Dividend	5455	8260	8068	13769	15288	20718	22886	26819	28081	25493
Dividend tax	790	842	8	1193	1961	2852	3215	4107	4722	4132
Retained profit	8086	6551	17902	17382	35835	41394	43435	50129	48511	54603
Dividend Payout Ratio	38.01	52.08	31.60	42.57	28.80	31.89	32.91	34.80	36.06	30.27

*Note : * Previous year's figure have had to be repeated in these cases*

1.2 Profitability Ratios

Box-3 below shows the different financial ratios vis-a-vis the aggregate performance of CPSEs for the last ten years. A perusal of profit related ratios shows a general improvement in profitability of CPSEs over the years (Fig 1.1). In comparison to 2007-08, however, the profitability ratios show a decline in 2008-09, whether measured in terms of Net Profit to Turnover, Net Profit to Networth or

Dividend Payout. In terms of 'effective tax rate', the tax burden on CPSEs that improved significantly in 2004-05 and 2005-06 got worse in 2006-07 and 2007-08 and remained so in 2008-09 (Fig 1.2). The interest burden on CPSEs measured as 'interest to gross profit' also shows a decline upto 2005-06. Subsequently, it has shown an upward trend and 'interest to gross profit' as a ratio went upto 28.21 per cent in 2008-09 (Fig 1.3).

BOX-3										
Financial Ratio										
	(In per cent)									
Particulars	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09
Sales to Capital employed	128.47	138.28	122.77	137.32	139.43	147.56	143.01	145.90	151.09	159.10
PBDITEP to Capital employed	20.54	20.91	22.97	24.38	28.15	28.26	25.66	26.91	26.94	23.60
PBTEP to Net worth	13.72	14.57	16.96	20.10	24.38	25.04	22.83	24.56	23.13	17.45
PBDITEP to Turnover	15.98	15.12	18.71	17.75	20.19	19.15	17.95	18.45	17.83	14.84
PBITEP to Capital employed	13.95	14.72	16.21	17.39	21.01	21.49	19.54	21.02	21.08	18.01
PBITEP to Turnover	10.86	10.64	13.20	12.66	15.07	14.57	13.67	14.41	13.95	11.32
PBTEP to Turnover	5.66	5.45	7.99	8.49	11.28	11.49	10.83	11.56	11.01	08.13
Net Profit to Turnover	3.68	3.42	5.43	5.65	8.40	8.73	8.30	8.40	7.43	6.67
Net Profit to Capital Employed	4.73	4.72	6.66	7.75	11.71	12.88	11.88	12.26	11.22	10.61
Net Profit to Net Worth	8.92	9.13	11.52	13.37	18.16	19.02	17.50	17.85	15.61	14.32
Dividend payout	38.06	52.77	31.06	42.57	28.85	31.89	32.91	33.09	34.53	30.27
Tax Provision to PBTEP	34.97	37.31	32.05	35.99	31.11	25.32	26.86	30.80	33.81	32.83
Interest to Gross Profit	32.52	34.35	27.87	23.52	18.72	16.04	15.78	19.77	21.09	28.21

1.3 Aggregate Balance Sheet of CPSEs

Table 1.1 below provides information on 'sources of funds' (capital available) with the CPSEs during the last three years. There was further improvement in 2008-09 as the funds available to CPSEs went up to Rs.1279726 crore from the earlier levels of Rs.1122347 crore in 2007-08 and Rs.1006327 crore in 2006-07. While 'reserves and surplus' showed an increase of 10.36 per cent 'long term loans' increased by 20.31 per cent during 2008-09 over 2007-08. In absolute terms, 'reserves and

surplus' went up to 535840 crore in 2008-09 from the earlier levels of Rs. 485540 crore in 2007-08 and to Rs.416602 crore in 2006-07. Long term loans went up to Rs. 386241 crore in 2008-09 from the earlier levels of Rs.321045 crore in 2007-08 and Rs.289142 crore in 2006-07.

In terms of application of funds, there was a growth of 8.72 per cent in 'gross block' and an increase of 11.65 per cent in 'net current assets' in 2008-09 over 2007-08. 'Net block' has had the highest share (>30%) under 'application of funds', followed

by 'net current assets '(30%), 'financial investments'' (>15%) and ' capital work in progress' (>10%) during the year. There has, however, been very little change

during the three years in respect to the shares of each of the broad categories under 'application of funds' (Table-1.1).

Table 1.1

Aggregate Balance Sheet of Public Sector Enterprises

(Rs. in crore)

Particulars	2008-09	2007-08	2006-07
SOURCES OF FUNDS			
(i) Share holders fund (a+b+c)	678550.33	619861.86	548231.01
a. Paid-up Capital	138842.58	131231.63	125322.71
b. Share application Money	3867.34	3090.26	6306.40
c. Reserves & Surplus	535840.41	485539.97	416601.90
(ii) Long Term Loans	386241.37	321045.31	289141.83
(iii) Deferred Tax Liability	49200.12	47820.91	46438.42
(iv) Other Funds	165733.93	133618.93	122515.54
Total (i+ii+iii+iv)	1279725.75	1122347.01	1006326.80
APPLICATION OF FUNDS			
(i) Gross Block	815139.63	749768.46	684587.57
(ii) Less: Depreciation	407630.04	371634.71	344265.44
(iii) Net Block	407509.59	378133.75	340322.13
(iv) Capital Work In Progress	162663.33	112462.33	98080.24
(v) Investments (Financial)	224376.70	181569.18	150023.53
(vi) Net Current Assets	386598.69	346272.31	321015.84
(vii) Deferred Revenue Expenditure	3698.07	2408.23	4519.28
(viii) Deferred Tax Asset	8243.87	5015.25	2787.69
(ix) Profit & Loss Account (DR)	86635.50	96485.96	89578.09
Total (iii to ix)	1279725.75	1122347.01	1006326.80

Note: DR= Debit Balance /Accumulated losses from previous year.

1.4 Investment Pattern in terms of Gross Block

In terms of gross block, the share of 'manufacturing' CPSEs in aggregate investment of all CPSEs during 2008-09, was the highest at 26.70 percent followed by 'mining' (25.30%), 'electricity' (24.23%) and 'services' (23.52%). In terms of growth

in investment over the previous year, the highest growth (other than CPSEs under construction) was registered by 'electricity' sector (15.07%), followed by 'manufacturing' (14.08%), 'mining' (12.71%) and 'services' (11.09%). The overall growth in investment in CPSEs, in terms of 'gross block', stood at 13 per cent in 2008-09 over the previous year. (Table 1.2/ Fig. 1.4)

Table 1.2
Pattern of investment in terms of Gross Block
(2007-08 and 2008-09)

(Rs. in crore)

Sl. No.	Sector	Investment in terms of Gross Block as on		Growth rate over the previous year	Gross Block as % of total (as on 31.3.2009)
		31.3.2009	31.3.2008		
(1)	(2)	(3)	(4)	(5)	(6)
1.	Agriculture	108	101	7.65	0.01
2.	Mining	245867	218137	12.71	25.30
3.	Manufacturing	262647	230231	14.08	26.70
4.	Electricity	240373	208889	15.07	24.23
5.	Services	225250	202771	11.09	23.52
6.	CPSEs yet to Commence Operations	3558	2102	69.29	0.24
Total		977803	862231	13.40	100.00

1.4.1 Top Ten Enterprises in terms of Gross Block

Gross block in top ten enterprises amounted to Rs. 673864 crore as on 31.3.2009. This was equal to 68.92 percent of the total gross block in all CPSEs. ONGC Limited, BSNL and NTPC have been the top three CPSEs in terms of gross block during the year (Table 1.3).

Table 1.3

Gross Block in Top Ten Enterprises, as on 31.3.2009

Sl. No.	CPSEs	(Rs. in crore)	
		Investment in terms of Gross Block*	Share in total Gross Block (%)
(1)	(2)	(3)	(4)
1.	Oil & Natural Gas Corporation Ltd.	153851	15.73
2.	Bharat Sanchar Nigam Ltd.	127218	14.03
3.	NTPC Ltd.	88758	88758
4.	Indian Oil Corporation Ltd.	80531	8.24

5.	Power Grid Corporation of India Ltd.	53605	5.48
6.	Steel Authority of India Ltd.	39273	4.02
7.	Nuclear Power Corporation of India Ltd.	34118	3.49
8.	NHPC Ltd.	31959	31959
9.	National Aviation Company of India Ltd.	29341	3.00
10.	Hindustan Petroleum Corporation Ltd.	25210	2.58
Total Top Ten (CPSEs)		673864	68.92
Total Gross Block		977803	100.00

* Gross Block inclusive of Capital-work-in progress.

1.4.2 Financial Investment in CPSEs

Financial investment (equity plus long term loans) in all 246 CPSEs, as on 31.3.2009, stood Rs.528951 crore as compared to Rs.455367 crore in the previous year showing an increase by Rs. 73584 crore or a growth of 16.16 percent. Table 1.4

below shows the sector-wise and cognate group-wise cumulative investment in CPSEs as on 31.3.2008 and 31.3.2009. In terms of share in total investment, the service sector CPSEs claimed the highest share in financial investment (46.12%) as on 31.3.2009, This

was followed by 'electricity' sector (26.19%) and 'manufacturing' (18.07%), which shown in figure (1.5). The financial investment during the year stood at Rs.73,584 crore.

Table 1.4
Financial Investment in CPSEs as on 31.3.2009

Sl. No.	Sector	Cumulative Net Investment as on		Investment during 2008-09	Share in total (cumulative) investment as on 31.3.09 (in%)
		31.3.2009	31.3.2008		
(1)	(2)	(3)	(4)	(5)	(6)
1.	Agriculture	264.13	182.22	81.91	0.05
2.	Mining	46354.79	40230.90	6123.89	8.76
3.	Manufacturing	95575.77	101175.67	- 5599.90	18.07
4.	Electricity	138540.09	127300.32	11239.77	26.19
5.	Services	243936.45	183994.91	59941.54	46.12
6.	Under Construction	4280.06	2483.18	1796.88	0.81
Total		528951.29	455367.20	73584.09	100.00

1.5 Turnover in CPSEs

Gross sales/ turnover of CPSEs have been robust during the last few years. The turnover of

CPSEs (at the aggregate level) grew by 15.43 per cent in 2008-09, which was higher than 13.43 per cent achieved in 2007-08 (Table 1.5 & 1.6) & figure 1.6.

Table 1.5
Group-wise Turnover of CPSEs

Sl. No.	Sector/Cognate Group	Turnover		
		31.3.2009	31.3.2008	31.3.2007
(1)	(2)	(3)	(4)	(5)
I. Agriculture				
1.	Agro Based Industries	492.94	362.30	245.35
Sub Total		492.94	362.30	245.35
II. Mining				
2.	Coal & Lignite	46015.70	39149.49	34143.53
3.	Crude Oil	77550.58	73128.01	65165.01
4.	Other Minerals & Metals	18007.85	16454.29	14056.85
Sub Total		141574.13	128731.79	113365.39

III. Manufacturing

5. Steel	60569.55	57316.79	49399.19
6. Petroleum(Refinery & Marketing)	703950.45	600622.23	515941.94
7. Fertilizers	17011.72	11661.88	10452.48
8. Chemicals & Pharmaceuticals	1646.04	1492.96	1179.86
9. Heavy Engineering	28855.72	22229.93	19453.81
10. Medium & Light Engineering	11452.49	10682.62	10647.81
11. Transportation Equipment	16398.17	13322.27	12534.49
12. Consumer Goods	4297.91	4023.30	3133.63
13. Textiles	418.13	490.29	513.55
Sub Total	844600.18	721842.27	623256.76

IV. Electricity

14. Generation	52477.69	46771.62	41580.17
15. Transmission	6651.54	4645.92	3607.80
Sub Total	59129.23	51417.54	45187.97

V. Services

16. Trading & Marketing	127509.10	106697.25	94148.60
17. Transport Services	27552.69	26831.58	25824.05
18. Contract & Construction Services	9708.85	8014.43	6450.99
19. Industrial Development & Tech. Consultancy Services	5543.49	4054.32	3492.90
20. Tourist Services	1017.61	1017.60	1030.22
21. Financial Services	18569.60	14686.97	12249.23
22. Telecommunication Services	27706.77	30828.39	39638.49
Sub Total	217608.11	192130.54	182834.48

Total	1263404.59	1094484.44	964889.95
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Table 1.6
**Growth in Turnover of CPSEs
(2006-07 to 2008-09)**

Sector	2008-09	2007-08	2006-07
Agriculture	36.06	47.67	42.04
Mining	9.98	13.55	11.16
Manufacturing	17.01	15.82	17.53
Electricity	15.00	13.79	19.59
Services	13.26	5.08	9.66
All CPSEs	15.43	13.43	15.28

The highest growth was registered by the 'manufacturing' sector (17%) during 2008-09, over an equally high growth (16%) in 2007-08. This was

followed by 'electricity' (15%) over an equally high growth (14%) in 2007-08. The 'service' sector also recorded a 13 per cent growth in turnover during the year. This was much better than a 5 per cent growth in the previous year. There was, however, a decline in growth in the 'mining' sector (10%) during the year, compared to 2007-08 (14%). The relatively lower growth in the 'mining' sector appears primarily on account of lower (international) commodity prices. There was much variation from industry to industry as well. While the turnover of CPSEs in the fertilizer sector grew at a high rate, there was significant decline in turnover of CPSEs belonging to industries like textiles and telecommunication services. The percentage of turnover per employee for the past 10 years is given in figure 1.9.

1.6 Share of select items in domestic/national production

Table 1.7 below shows the industries in which CPSEs have a major market share. The CPSEs continue to have complete monopoly in nuclear power

generation. The other sectors / industries where they have a major share in domestic / national output are coal, petroleum, power generation, telecommunication and fertilizers. In comparison to 1998-99, however, the share of CPSEs in these (select) industries have significantly come down in 2008-09.

Table 1.7
CPSEs Share in Domestic Output of select items

Sl. No.	Selected Item	Units	Domestic Production/ Output		Total Output by CPSEs		Share of CPSEs to Domestic Output (%)	
			1998-99	2008-09	1998-99	2008-09	1998-99	2008-09
1	Coal@							
1.1	Hard Coal (Non-coking Coal)	Million Tonnes	253.326	422.548	223.474	353.595	88.216	83.68
1.2	Coking Coal	Million Tonnes	43.843	34.455	38.618	27.270	88.082	79.14
2	Petroleum Products							
2.1	Crude Oil	MMT	32.7	33.5	29.7	28.8	90.8	86.0
2.2	Natural Gas	BCM	27.4	32.8	24.5	24.7	89.4	75.3
2.3	Refineries Throughput	MMT	68.5	160.8	68.5	112.2	100.0	69.8
3	Power Generation							
3.1	Thermal	GWh	353662	590101	135423	245961	38	42
3.2	Hydro	GWh	82690	113081	25339	43359	31	38
3.3	Nuclear	GWh	12015	14713	12015	14713	100	100.0
4	Telecommunication Services							
4.1	Wired lines	Nos. (in cr.)	1.78	3.80	1.78	3.30	100	86.84
4.2	Wire Less	Nos. (in cr.)	0.09	39.18	0.09	6.00	100	15.31
5.3	Total	Nos. (in cr.)	1.87	42.98	1.87	9.30	100	21.64
5	Fertilizers@							
5.1	Nitrogenous	Lakh MT	100.86	109.00	31.76	28.87	31.49	26.4
5.2	Phosphotic	Lakh MT	29.76	38.07	7.26	1.61	24.40	4.2

MMT: Million Metric Tonnes, MCM: Million Cubic Metres

@Information in respect of Coal & Fertilizers is for the year 1997-98 and 2007-08

1.7. Aggregate Profit and Loss of CPSEs

The profit of profit making CPSEs stood at Rs.98652 crore in 2008-09 compared to Rs.91571 crore in 2007-08. The loss of loss making CPSEs, on the other hand, was Rs.14424 crore and Rs. 10257 crore respectively during this period. At the aggregate level, the net profit of all CPSEs (aggregate net profit- aggregate net loss) stood at Rs.84228 crore in 2008-09 compared to Rs.81314 crore in 2007-08. Cognate group-wise, the best results were achieved

by the 'manufacturing' sector with 36 per cent growth in profit over the previous year. This was followed by a 6 per cent growth in profits achieved by the 'electricity' sector. The other sectors of 'mining' (-4.53%) and services (-61.34%) recorded significant decline in profits. In the manufacturing sector as well, CPSEs belonging to industries such as steel, petroleum refinery, medium & light engineering, consumer goods, recorded significant decline in their profits during the year.

Table 1.8
Net Profit/Loss of CPSE

(Rs.in crore)

Sl. No.	Sector/Cognate Group	31.3.2009	31.3.2008	31.3. 2007
(1)	(2)	(3)	(4)	(5)
I. Agriculture				
1.	Agro Based Industries	19.62	18.38	- 1.58
Sub Total		19.62	18.38	- 1.58
II. Mining				
2.	Coal & Lignite	6162.35	8597.27	8852.19
3.	Crude Oil	19730.67	19340.00	18335.46
4.	Other Minerals & Metals	6411.03	5898.91	5246.05
Sub Total		32304.05	33836.18	32433.70
III. Manufacturing				
5.	Steel	7593.64	9559.74	7612.70
6.	Petroleum(Refinery & Marketing)	8095.03	15341.77	15107.36
7.	Fertilizers	10633.55	- 2571.73	- 2474.77
8.	Chemicals & Pharmaceuticals	- 423.05	- 255.95	-131.06
9.	Heavy Engineering	3022.93	2604.27	2123.34
10.	Medium & Light Engineering	-107.39	118.22	- 27.50
11.	Transportation Equipment	2290.09	2267.48	1816.41
12.	Consumer Goods	269.12	-407.85	-211.23
13.	Textiles	3619.20	-989.20	-1342.63
Sub Total		34993.12	25666.75	22472.62
IV. Electricity				
14.	Generation	11662.87	11175.18	10883.43
15.	Transmission	1709.09	1461.14	1232.30
Sub Total		13371.96	12636.32	12115.73
V. Services				
16.	Trading & Marketing Services	810.75	654.06	432.49
17.	Transport Services	- 3450.70	622.21	1962.63
18.	Contract & Construction Services	279.68	235.70	-153.75
19.	Industrial Development & Tech. Consultancy Services	635.72	465.02	393.66
20.	Tourist Services	55.95	38.81	52.92
21.	Financial Services	4319.54	3488.04	2818.00
22.	Telecommunication Services	888.56	3652.70	8528.49
Sub Total		3539.50	9156.54	14034.44
Grand Total		84228.25	81314.17	81054.91

1.7.1 Top Ten Profit & Loss Making CPSEs

Table 1.9 and Table 1.10 provide the list of the top ten profit making and top ten loss making CPSEs respectively (exclusive of Extra Ordinary Items and Prior Period adjustment). ONGC Ltd., NTPC Ltd. and SAIL ranked first- second and third amongst the profit making CPSEs.

Table 1.9

Top Ten Profit * Making CPSEs (2008-09)

		(Rs. in crore)
Sl.	Name of the CPSEs	Net profit*
(1)	(2)	(3)
1.	Oil & Natural Gas Corporation Ltd.	16041.00
2.	NTPC Ltd.	8309.62
3.	Steel Authority of India Ltd.	6171.03
4.	NMDC Ltd.	4371.86
5.	Coal India Ltd.	3290.03
6.	Bharat Heavy Electricals Ltd.	3126.32
7.	GAIL(India) Ltd	2814.09
8.	Indian Oil Corporation Ltd.	2569.89
9.	Oil India Ltd	2166.31
10.	South Eastern Coalfields	2014.81

Note; *Profit before Extra Ordinary Items and Prior Period adjustment

Amongst the loss making companies(exclusive of Extra Ordinary Items and Prior Period adjustment) National Aviation Co. of India Ltd. (NACIL), Eastern Coalfields Ltd, and Hindustan Photo Films Manufacturing Co. Ltd. were the top three loss making companies.

Table 1.10

Top Ten Loss Making CPSEs (2008-09)

		(Rs. in crore)
Sl No.	Name of the CPSEs	Net Loss*
(1)	(2)	(3)
1.	National Aviation Co. of India Ltd.	(-) 5442.58

2.	Eastern Coalfields Ltd.	(-) 2106.31
3.	Hindustan Photo Films Manufacturing Co. Ltd.	(-) 875.61
4.	Fertilizer Corp. of India Ltd	(-) 752.58
5.	I T I Ltd.	(-) 645.65
6.	National jute Manufactures Ltd.	(-) 551.77
7.	Bharat Coking Coal Ltd.	(-) 527.99
8.	Hindustan Fertilizer Corpn. Ltd.	(-) 516.01
9.	Hindustan Cables Ltd.	(-) 444.75
10.	Chennai Petroleum Corporation Ltd.	(-) 406.05

Note ; Net Loss before Extra Ordinary Items and prior Period adjustment

1.8 Contribution to GDP

1.8.1 Gross Value Addition by CPSEs

The share of 'gross value addition' in CPSEs (including depreciation) in Gross Domestic Product (at current market price) stood at 6.49 per cent in 2008-09 against a share of 8.02 per cent in 2007-08 in figure 1.7. This has been primarily on account of increase in Government subsidies to fertilizer sector as well as the policy to keep the prices of various products supplied by CPSEs under control, even when the input costs went up.

1.8.2 Net Value Addition by CPSEs

In terms of net value addition (net of depreciation), in 2008-09, the share of net profit (before Tax & EP)' was the highest at 33.27 per cent followed by 'salaries & wages' (26.82%), indirect taxes & duties (21.92%) and interest (13.07%). This is in contrast to the previous year. With reduction in indirect taxes during the year, its share in 'net value addition' by CPSEs also declined from 32 per cent in 2007-08 to 22 per cent in 2008-09. The share of salaries & wages, on the other hand, has gone up from 19 per cent in 2007-08 to 27 per cent in 2008-09.

Table 1.11

Components of Net Value Addition in CPSEs

(Rs in crore)

Sl	Net Value Addition	2008-09	%	2007-08	%
(1)	(2)	(3)	(4)	(5)	(6)
1.	Net Profit (before Tax & EP)	102652	33.27	120487	35.20
2.	Interest	40330	13.07	32199	9.41
3.	Indirect Taxes & Duties (net of subsidies)	67635	21.92	108615	31.74
4.	Salaries & Wages	82735	26.82	64300	18.79
5.	Rent, royalty and cess	15183	4.92	16652	4.87
	Total:	308535	100.00	342253	100.00

1.9 Contribution to the Central Exchequer

CPSEs contribute to the Central Exchequer by way of dividend payment, interest on government loans and payment of taxes & duties. There was, however, a significant decline in the total contribution of CPSEs to the Central Exchequer during the year, which came down from Rs.165994 crore in 2007-08

from Rs.151728 crore in 2008-09, figure 1.8. This was primarily due to reduction in contribution towards 'customs' and 'excise duty that came down from Rs.13386 crore and Rs.68932 crore in 2007-08 to 8702 crore and Rs.63250 crore in 2008-09 respectively. There was likewise a decline in 'corporate tax' and 'dividend tax' also during the year compared to the previous year (Table 1.12).

Table 1.12

Contribution to the Central Exchequer

(Rs in crore)

Particulars	2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)
I. On Investment by CPSEs			
1. Dividend	19387.36	19423.47	18967.43
2. Interest	558.79	749.03	1975.08
Total (I)	19946.15	20172.50	20942.51
II. Taxes and Duties (Central)			
1. Excise Duty	63250.19	68932.20	64022.87
2. Customs Duty	870219	13385.59	11045.37
3. Corporate Tax	35395.41	40670.64	32325.55
4. Dividend Tax	4210.39	4434.41	3867.33
5. Sales Tax	2562.02	2640.84	2698.34
6. Other Duties & Taxes	17661.69	15757.59	13881.29
Total (II)	131781.89	145821.27	127840.75
Grand Total (I+II)	151728.04	165993.77	148783.26

1.10 Disinvestment

The policy on 'Disinvestment in CPSEs' has evolved over the years. Disinvestment of Government equity in CPSEs began in 1991-92. The current policy on disinvestment emanate from the President's Address to the Joint Session of both the Houses of Parliament (4.6.2009) where it was stated, as under:

'Our fellow citizens have every right to own part of the shares of public sector companies while the Government retains majority shareholding and control. My Government will develop a roadmap for listing and people-ownership of public sector undertakings while ensuring that Government equity does not fall below 51 %'.

The Hon'ble Finance Minister in his Budget Speech (6.7.2009), furthermore, announced, as under:

"Public Sector Undertakings (PSUs) are the wealth of the nation, and part of this wealth should rest in the hands of the people. While retaining at least 51 per cent Government equity in our enterprises, I propose to encourage people's participation in our disinvestment programme. Here, I must state clearly that public sector enterprises, such as, banks and insurance companies will remain in the public sector and will be given all support, including capital infusion, to grow and remain competitive'.

The Department of Disinvestment, Ministry of Finance, in consultation with Ministries/Departments will accordingly identify cases for disinvestment in select CPSEs. The focus will first be on profitable CPSEs that are listed with less than 10% public shareholding (and make them compliant through Follow-on Public Offerings). Profitable unlisted companies will be also listed on stock exchanges through Offer-for-Sale or through Issue of Fresh Equity by the companies or both in conjunction.

1.11 Revival of Sick PSEs

The condition of sick CPSEs (i.e, CPSEs whose accumulated losses have exceeded their net worth) has been improving over the years. The number of sick CPSEs, which was 105 in March 2003 came down to 54 in March 2009. The CPSEs were brought under the purview of Sick Industrial Companies (Special Provision) Act, 1985 (SICA) which was subsequently amended in 1991 and made effective from 1992. Out

of the 65 CPSEs registered with Board for Industrial and Financial Reconstruction (BIFR) till 30.6.2009, the BIFR has already disposed of 48 cases of CPSEs either through sanctioning revival schemes (11 cases), or recommending winding up (21 cases) or declaring 'no longer sick' (3 cases) or dropping due to net worth becoming positive (5 cases) or dismissing the cases as non-maintainable (4 cases). The BIFR is yet to take any view on 17 cases of CPSEs.

The Government set up the Board for Reconstruction of Public Sector Enterprises (BRPSE) in December, 2004 to advise the Government, inter alia, on the measures to restructure/revive, both industrial and non-industrial CPSEs. For the purpose of making reference to BRPSE, a company is considered 'sick' if it has accumulated losses in any financial year equal to 50% or more of its average net worth during 4 years immediately preceding such financial year, and/or a company which is a sick company within the meaning of Sick Industrial Companies (Special Provisions) Act, 1985 (SICA). The concerned administrative Ministries/ Departments are required to send proposals of their CPSEs identified as 'sick' for consideration of BRPSE. The Board is expected to make its recommendations within 2 months of the date of receipt of the complete proposal from the administrative Ministry/Department. Loss making/sick CPSEs may also be considered by the Board, suo moto, if it is of the opinion that revival/restructuring is necessary for checking the incipient sickness (incurring loss for two consecutive years) in the enterprise. As per the definition of sick CPSEs and the performance evaluation of CPSEs for 2007-08 and previous years, there were 78 CPSEs referable to BRPSE as on 31.03.2008. Up to September 2009, cases of 64 sick CPSEs have been referred to BRPSE; out of which the Board has made recommendations in respect of 58 cases.

Out of these 58 cases as on 30.9.2009, the Government has approved revival proposals in respect of 36 cases of CPSEs and winding up of two enterprises. Out of the 36 cases of revival approved by the Government till September, 2009, 15 were approved during 2005-06, 11 cases were approved during 2006-07, 6 cases were approved during 2007-08, 4 cases were approved during 2008-09, and 2 cases were approved during 2009-10 (upto September, 2009).

1.12 Board Structure of CPSEs

The Department of Public Enterprises(DPE) formulates policy guidelines on the Board structure of Public Enterprises and advises on the shape and size of organizational structure of CPSEs. The public enterprises are categorized in four Schedules namely 'A', 'B', 'C' and 'D' based on various quantitative, qualitative and other factors. The pay scales of Chief Executives and full time Functional Directors in CPSEs are determined as per the Schedule of the concerned enterprise.

Proposals received from various administrative Ministries/Departments for initial categorization/upgradation of CPSEs in appropriate schedule, personal upgradation, creation of posts in CPSEs, etc. are considered in DPE in consultation with the Public Enterprises Selection Board (PESB). During 2008-09, 2 CPSEs were initially categorized in appropriate Schedule, 3 CPSEs were upgraded to higher Schedule and one post of Chief Executive and 9 posts of Functional Directors were created.

As on 31.3.2009, there were 246 CPSEs in the country. Out of the 246 CPSEs, there are 58 Schedule 'A', 70 CPSEs in Schedule 'B', 46 CPSEs in Schedule 'C' and 6 CPSEs Schedule 'D'. The rest are covered under the uncategorized category. The details of the Board level posts (whole time) in the categorized CPSEs are given below : (Table 1.13).

Table 1.13
Position of Board Level Executives

Schedule	Chief Executive		Whole Time Director	
	2008	2009	2008	2009
Schedule A	56	58	*	*
Schedule B	74	70	202	213
Schedule C	47	46	185	183
Schedule D	06	06	67	67
Total	183	180	454	463

Note: *Whole time Directors are one level below that of the Chief Executive

1.13 Corporate Governance

The concept of corporate governance has generated a great deal of interest and public debate. Corporate governance is intended primarily to ensure transparency in management of the enterprise' and

encompasses the entire functioning of the company. Keeping in view relevant laws, instructions and procedures, the Department of Public Enterprises (DPE) brought out the 'Guidelines on Corporate Governance for CPSEs' in June 2007.

CPSEs have been, furthermore, categorized into two groups for purpose of Corporate Governance, namely (a) those listed on the Stock Exchanges and (b) those not listed in the Stock Exchanges. In so far as listed CPSEs are concerned, they have to follow the SEBI guidelines on Corporate Governance. They may, in addition, follow those provisions of the Guidelines brought out by DPE which do not exist in the SEBI guidelines and also do not contradict provisions in the SEBI guidelines. The non-listed CPSEs are to follow the DPE guidelines on Corporate Governance, although these are voluntary in nature. These guidelines are under implementation by the CPSEs.

1.14 Professionalization of Boards

In pursuance to the policy on public sector enterprises being followed since 1991, several measures have been taken by the Department of Public Enterprises to professionalize the Boards of public enterprises. The guidelines issued by the DPE in 1992 provide for induction of outside professionals on the Boards of CPSEs as part-time non-official Directors. The number of such Directors, moreover, has to be at least 1/3rd of the actual strength of the Board. In the case of listed CPSEs headed by an executive Chairman, the number of non-official Directors (Independent Directors) should be at least half the strength of the Board. The guidelines also provide that the number of Government Directors on the Boards should be not more than one-sixth of the actual strength of the Board subject to a maximum of two. Apart from this, there should be some functional Directors on each Board whose number should not exceed 50% of the actual strength of the Board.

The proposals for appointment of non-official Directors are initiated by the concerned Administrative Ministries/Departments. In so far as Navratna and Miniratna CPSEs are concerned, the selection of non-official Directors is made by the Search Committee consisting of Chairman (PESB), Secretary (DPE), Secretary of the administrative Ministry/Department of the CPSE, Chief Executive of the concerned CPSE and non-official Members. In the case of remaining

CPSEs (other than Navratna/Miniratna CPSEs), Public Enterprises Selection Board (PESB) makes the selection of non-official Directors. The concerned Administrative Ministry/Department appoints the non-official Directors on the basis of recommendations of Search Committee/PESB after obtaining the approval of competent authority, i.e. Appointments Committee of Cabinet (ACC).

1.15 Wages/ Salaries and Employees Welfare

The Department of Public Enterprises (DPE) functions as the nodal Department in the Government of India, inter-alia, in respect of policy relating to wage settlements of unionized employees, pay revision of non-unionized supervisors and the executives holding posts below the Board level as well as at the Board level in CPSEs. The CPSEs are largely following the Industrial Dearness Allowance (IDA) pattern scales of pay. In some cases, Central Dearness Allowance (CDA) pattern scales of pay is also being followed in the CPSEs.

1.15.1 Industrial Dearness Allowance (IDA)

The Government policy relating to pay scales and pay pattern is broadly that all employees of the CPSEs should be on IDA pattern and related scales of pay. Instructions had been issued to all the administrative Ministries by the DPE in July, 1981 and July, 1984 that as and when a new CPSE is created or established, IDA pattern and related scales of pay should be adopted ab-initio. Vide DPE O.M. dated 10.08.2009, it was reiterated and emphasized that 'appointments' including 'promotion' on or after 01.01.1989 in CDA scales of pay has to be in IDA scales of pay. There are 246 CPSEs (excluding Banks, Insurance Companies under the administrative control of the Central Government. They employ approximately 15.35 lakh workmen, clerical staff and executives as on 31.3.2009. Out of this, around 96 % of the workmen and executives are on IDA pattern and related scales of pay.

The last pay revision for the IDA executives and non-unionized supervisors was done w.e.f 1.1.97 for a period of ten years based on the recommendations of Justice Mohan Committee (1st Pay Revision Committee). The duration of this pay revision was for 10 years i.e. upto 31.12.2006. The

Second Pay Revision Committee (2nd PRC), headed by Justice M. Jagannadha Rao, was constituted vide the Government of India Resolution dated 30.11.2006. The Government, after due consideration of the recommendations of the 2nd Pay Revision Committee issued orders on 26.11.2008 and 09.02.2009.

1.15.2 Central Dearness Allowance (CDA)

The DPE vide its OM dated 14.10.2008, has furthermore revised the pay scales of the employees of CPSEs following CDA pattern w.e.f. 01.01.2006, based on Government decision in respect of Central Government employees. The benefit of pay revision was allowed only to the employees of those CPSEs which are not loss making and are in a position to absorb the additional expenditure on account of pay revision from their own resources without any budgetary support from the Government. It has also been indicated that the Board of Directors would consider the proposal of pay revision of all the employees in the CPSE, keeping in mind the affordability and capacity of the CPSE to pay and submit a proposal to its Administrative Ministry/Department, which will approve the proposal with the concurrence of its Financial Adviser.

1.16 Employment

As on 31.3.2009, the 246 CPSEs employed over 15.35 lakh people (excluding casual workers). One-fourth of the manpower was in managerial and supervisory cadres. The CPSEs have thus a highly skilled workforce, which is one of their basic strengths. The CPSEs, in turn, provide lifetime employment to their employees. The details of employment in CPSEs vis-a-vis per capita emoluments are given in Table 1.14 below. As the CPSEs operate under dynamic market conditions, while, some of them may face shortage of people, others may have excess manpower. The Government, therefore, initiated a Voluntary Retirement Scheme (VRS) to help these enterprises to shed excess manpower.

Table 1.14
Employment and Average Annual Emoluments

Year	No. of Employees (in lakh)	Average Annual per capita emoluments (Rs.)
(1)	(2)	(3)
2001-02	19.92	193554
2002-03	18.66	225986
2003-04	17.62	248481
2004-05	17.00	286112
2005-06	16.49	284123
2006-07	16.14	398496
2007-08	15.66	410802
2008-09	15.35	539150

The basic parameters of the model Voluntary Retirement Scheme (VRS) which were notified by the Government vide DPE's O.Ms. dated 5.10.1988 and 6.1.1989 were in force since 1988 till April, 2000. The Government improved upon the said scheme and introduced new schemes of VRS on 5.5.2000 and again on 6.11.2001. As per the available information, about 3.03 lakh employees opted for Voluntary Retirement Scheme (VRS), till 31.3.2009.

A good many CPSEs, are faced with a high rate of 'attrition', as employees are leaving to join other organizations on account of higher salaries being offered elsewhere. The total number of employees in CPSEs that was 15.65 lakhs in 2007-08 came down further to 15.35 lakhs in 2008-09.

1.17 Counseling, Retraining and Redeployment (CRR)

Restructuring of enterprises is a global phenomenon, particularly in the context of more liberalized economies. In the process, rationalization of manpower may become a necessity. Since this affects adversely the interest of the workers, the policy of the Government has been to implement these reforms with a humane face. The Government accordingly established the National Renewal Fund (NRF) in February 1992, to cover broadly the expenses of VRS and to provide retraining to workers in the organized

sector. In the wake of the ongoing restructuring exercises in the central enterprises, priority was given on the needs of CPSEs. The NRF was subsequently abolished in February, 2000.

The retraining activity for employees opting for VRS was administered earlier by the Department of Industrial Policy & Promotion until 31st March, 2001. The scheme for Counselling, Retraining and Redeployment (CRR) is under implementation through DPE since 2001-02. The scheme for Counselling, Retraining and Redeployment (CRR) inter-alia aims: (a) to provide opportunity for self-employment, (b) to reorient rationalized employees through short duration programmes, (c) to equip them for new vocations, (d) to engage them in income generating self-employment, (e) to help them rejoin the productive process.

A Plan Fund of Rs. 8 crore was allocated initially during 2001-02, which was enhanced to Rs.10 crore during 2002-03 and 2003-04. The plan fund was substantially increased to Rs. 30 crore during 2004-05 and 2005-06, and further enhanced to Rs. 31.50 crore during 2006-07. During 2007-08, however, only Rs. 10.00 crore was allocated and during 2008-09, the plan allocation made was Rs. 8.70 crores for the implementation of CRR scheme. As many as 19 nodal agencies with 46 Employees Assistance Centres (EACs) were operational.

1.18 Memorandum of Understanding

The Memorandum of Understanding (MoU), as applicable to central public sector enterprises, is a negotiated document between the government and the management of the enterprise specifying clearly the objectives of the agreement and the obligations of both the parties. The main purpose of the MoU system is to ensure a level playing field to the public sector enterprises vis-à-vis the private corporate sector. MoU is aimed at providing greater autonomy to public sector enterprises vis-à-vis the control of the government. The 'management' of the enterprise is, nevertheless, made accountable to the government through promise for performance or 'performance contract'. The government, nevertheless, continues to have control

over these enterprises through setting targets in the beginning of the year and by 'performance evaluation' at the end of the year.

Performance evaluation is done based on the comparison between the actual achievements and the annual targets agreed upon between the government and the CPSE. The targets constitute of both financial and non-financial parameters with different weights assigned to the different parameters. In order to distinguish 'excellent' from 'poor', moreover, performance during the year is measured on a 5-point scale. Table -1.15 provides a summary of the performance of MoU signing CPSEs as reflected in their MoU rating during the last five years.

Table: 1.15
Summary of the performance of MoU signing PSEs (in nos.)

Rating	2004-05	2005-06	2006-07	2007-08	2008-09
Excellent	45	44	46	55	47
Very Good	31	36	37	34	35
Good	12	14	13	15	25
Fair	10	08	06	08	18
Poor	01	00	00	00	00
Total	99	102	102	112	125

1.19 Market Capitalisation of CPSEs Stocks

There were 44 CPSEs listed on the stock exchanges of India as on 31.03.2009; 4 CPSEs were, however, not being traded during 2008-09. India Tourism Development Corporation was last traded during 2008-09 on 5.5.2008. During the year, Bongaigaon Refinery was merged with Indian Oil Corporation Ltd. Thus there are stocks of 40, CPSEs, which were being traded on the stock exchanges of India as on 31.03.2009.

The total market capitalization of these 40 CPSEs based on stock prices on Mumbai Stock Exchange as on 31.03.2008 was Rs.1120752 crore.

Market capitalization of these 40 CPSEs as on 31.03.2009 stood at Rs.813530 crore. There was, therefore, decrease in market capitalization of CPSEs by 27.41% (Rs.30722 crore) as on 31.03.2009 over market capitalization as on 31.03.2008. During this period, the market capitalization of Mumbai Stock Exchange decreased by 39.94% and Sensex decreased by 37.94%. Market Capitalization (M_Cap) of all listed CPSEs as a percentage of BSE M_Cap increased from 21.80% as on 31.03.2008 to 26.36% as on 31.3.2009. A table showing closing price of listed CPSEs in BSE as on 31.3.2008 and 31.3.2009 (as well as M_Cap on these dates) is given at Annex 1.

**Growth In Market Capitalization of Listed and Traded CPSEs
(2008 to 2009)**

S. No.	Name of the CPSE	BSE Closing Market price as on 30.03.2008	BSE Closing Market price as on 30.03.2009	Market Capitalization as on 31.03.2008	Market Capitalization as on 31.03.2009	Change in Mkt. Cap. in 2009 (over 2008)
		(in Rupees)		(Rs. in Crores)		
1	2	3	4	5	6	7
1.	Andrew Yule & Company Ltd #	29.65	22.55	863.85	639.74	- 25.94%
2.	Balmer Lawri & Co Ltd	371.35	235.15	623.50	383.06	- 38.56%
3.	Balmer Lawri Investments Ltd	84.30	65.55	187.15	145.52	- 22.24%
4.	BEML Ltd	990.30	381.50	4149.36	1588.95	- 61.71%
5.	Bharat Electronics Ltd	1057.00	882.90	8456.00	7063.20	- 16.47%
6.	Bharat Heavy Electrical Corpn Ltd	2056.55	1504.35	100672.24	73640.94	- 26.85%
7.	Bharat Immunologicals & Biologicals Corpn Ltd	26.55	9.86	67.41	42.58	- 36.83%
8.	Bharat Petroleum Corpn Ltd	411.25	376.65	14868.33	13617.4	- 8.41%
9.	Bongaigaon Refinery	48.85		976.12	0	0.00%
10.	Chennai Petroleum Corporation Ltd	279.65	94.45	4258.04	1407.31	- 66.95%
11.	Container Corporation of India Ltd.	1728.35	716.15	11232.55	9308.52	- 17.13%
12.	Dredging Corporation of India Ltd	647.50	228.70	1813.00	640.36	- 64.68%
13.	Engineers (I) Ltd	666.60	520.55	3743.63	2923.41	- 21.91%
14.	Fertilizer & Chemicals (Travancore) Ltd	22.35	21.85	792.91	775.17	- 2.24%
15.	Gail (India) Ltd &	424.85	244.25	35927.44	30982.62	- 13.76%
16.	Hind Copper Ltd.@	236.05	110.80	18133.79	10251.44	- 43.47%
17.	Hind Organic Chemicals Ltd	38.35	18.45	257.98	124.11	- 51.89%
18.	Hindustan Petroleum Corpn Ltd	255.60	269.10	8663.31	9112.53	5.19%
19.	HMT Ltd	70.40	35.40	3295.92	2691.64	- 18.33%
20.	Indian Oil Corporation Ltd.	445.60	387.35	53130.86	46186.62	- 13.07%
21.	India Tourism Development Corpn Ltd *	82.00	99.60	553.66	672.50	21.46%
22.	ITI Ltd.	34.30	16.15	2016.84	465.12	- 76.94%
23.	Madras Fertilizers Ltd	11.55	6.90	187.27	111.88	- 40.26%
24.	Mahanagar Telephone Nigam Ltd	96.55	69.10	6082.65	4353.3	- 28.43%

25.	Maharashtra Eleectros melt Ltd	446.40	213.00	1071.36	511.20	- 52.28%
26.	Mangalore Refinery And Petrochemicals Ltd	77.85	41.05	13717.87	7195.65	- 47.55%
27.	MMTC Ltd	21794.20	14137.55	108971.00	70687.75	- 35.13%
28.	National Aluminium Company Ltd	451.70	214.45	29103.48	13817.23	- 52.52%
29.	National Fertilisers Ltd.	39.80	33.20	1952.51	1628.73	- 16.58%
30.	National Mineral Dev. Corporation Ltd \$, &	10346.80	156.70	136743.31	62126.85	- 54.57%
31.	Neyvelli Lignite Corpn Ltd	119.90	83.75	20115.74	14050.82	- 30.15%
32.	NTPC Ltd.	197.00	180.20	162435.56	148583.19	- 8.53%
33.	Oil & Natural Gas Corporation Ltd.	981.35	779.70	209899.97	166767.89	- 20.55%
34.	Power Finance Corpn. Ltd	162.15	144.80	18611.04	16619.71	- 10.70%
35.	Power Grid Corpn. Ltd	97.95	95.65	41225.60	40257.55	- 2.35%
36.	Rashtriya Chemicals and Fertilizers Ltd.	52.05	37.65	2871.55	2077.11	- 27.67%
37.	Rural Electrification Corpn Ltd	106.10	96.20	9110.38	8260.31	- 9.33%
38.	Scooters India Ltd	23.00	13.88	91.98	59.68	- 35.12%
39.	Shipping Corporation of India &	198.10	76.70	5592.36	3247.86	- 41.92%
40.	State Trading Copr. of India Ltd.	329.20	112.10	1975.20	672.6	- 65.95%
41.	Steel Authority of India Ltd	184.75	96.45	76309.14	39837.71	- 47.79%
I.	Total M_Cap of CPSEs	-	-	1120752	813530	- 27.41%
II.	Total M_Cap of BSEs	-	-	5138014	3086075	- 39.94%
III.	BSE Sensex	-	-	15644	9709	- 37.94%
IV.	M_Cap of CPSEs as % of BSE M_Cap	-	-	21.80%	26.36%	-

Remarks

(a) 1. Hindustan Fluorocarbon Ltd., 2.Hindustan Photo Film Corpn Ltd., 3. IRCON International, 4. Kudurmukh Iron Ore have no trading.

@ Face Value Rs 5/- per share., # Face Value of Rs 2/- per share, \$ Face Value Rs 1/- per share & Bonus has been issued during the year in case on National Mineral Development Corporation in ratio of 2:1, Shipping Corporation of India in ratio of 1:2, GAIL in the ratio of 1:2 and Container Corporation of India in the ratio of 1:1.

* last traded during 2008-09 on 5.05.2008

INVESTMENT IN CENTRAL PUBLIC SECTOR ENTERPRISES

The aggregate real investment in Central Public Sector Enterprises (CPSEs) measured in terms of 'gross block' went up from Rs.862231 crore in 2007-08 to Rs.977803 crore in 2008-09, showing an increase of Rs.115572 crore or a growth of 13.40 percent over the previous year. In terms of share in 'gross fixed capital formation' (GFCF) of the country,

the share of gross block in CPSEs, however, shows a decline over the years. It came down from 10.39 per cent in 2003-04 to 4.96 per cent in 2007-08. Significantly, with an investment equal to Rs.115572 crore by CPSEs in 2008-09, their share in gross fixed capital formation went up to 6.24 per cent during the year 2008-09 (Table 2.1).

Table 2.1
Growth in real investment/Gross Block

Year	Accumulated Gross Block @ in CPSEs (Rs. crore)	Gross Block during the year (Rs. crore)	Growth over the previous year (in %)	GFCF [^] , in the economy during the year *(Rs. crore)	Gross Block in CPSEs, as % of GFCF (3)/(5)*100
(1)	(2)	(3)	(4)	(5)	(6)
2003-04	596727	71426	13.60	687150	10.39
2004-05	649245	52519	8.80	896774	5.86
2005-06	715108	65863	10.14	1109160	5.94
2006-07	782668	67560	9.45	1343843	5.03
2007-08	862231	79562	10.17	1605440	4.96
2008-09	977803	115572	13.40	1852354	6.24

Note: @including capital work in progress; ^ Gross Fixed Capital Formation.

* Source Central Statistical Organisation.

2.1 Growth in Financial Investment

The aggregate financial investment in CPSEs (comprising paid-up share capital, share application money pending allotment and long term loans) grew

from Rs.29 crore in 5 enterprises in 1951-52 to Rs.528951 crore in 246 enterprises in 2008-09. (Table 2.2). The financial investment during 2008-09 over 2007-08, moreover, increased by Rs.73584 crore or by 16.16%.

Table 2.2
Growth in (Financial) Investment #

Particulars	Total Investment (Rs. in crore)	Enterprises (Nos.)
(1)	(2)	(3)
At the commencement of the 1st Five Year Plan (1.4.1951)	29	5
At the commencement of the 2nd Five Year Plan (1.4.1956)	81	21
At the commencement of the 3rd Five Year Plan (1.4.1961)	948	47
At the end of 3rd Five Year Plan (31.3.1966)	2410	73
At the commencement of the 4th Five Year Plan (1.4.1969)	3897	84
At the commencement of the 5th Five Year Plan (1.4.1974)	6237	122
At the end of 5th Five Year Plan (31.3.1979)	15534	169
At the commencement of the 6th Five Year Plan (1.4.1980)	18150	179
At the commencement of the 7th Five Year Plan (1.4.1985)	42673	215
At the end of 7th Five Year Plan (31.3.1990)	99329	244
At the commencement of the 8th Five Year Plan (1.4.1992)	135445	246
At the end of 8th Five Year Plan (31.3.1997)	213610	242
At the end of 9th Five Year Plan (31.3.2002)	324614	240
At the end of 10th Five Year Plan (31.3.2007)	420771	245
At the end of first year of Eleventh Five Year Plan (31.3.2008)	455367	242
At the end of second year of Eleventh Five Year Plan (31.3.2009)	528951	246

Note: # As in the Balance Sheet.

2.2 Components of Financial Investment

The structure of financial investment in CPSEs has undergone some change over the years (Table 2.3). While the share of paid-up capital in total (financial)

investment stood at 32.57 percent during 2002-03, it declined to 26.25 percent in 2008-09. The share of long-term loans, on the other hand, went up from 66.56 percent in 2002-03 to 73.02 percent in 2008-09.

Table 2.3
Components of Financial Investment

Year ending	Paid-up Capital	Share application money	Long term loans	Investment (3+4+5)
(1)	(2)	(3)	(4)	(5)
As on 31.3.2003	109306 (32.57)	2933 (0.87)	223408 (66.56)	335647 (100)
As on 31.3.2004	111874 (31.96)	7087 (2.02)	231033 (66.01)	349994 (100)
As on 31.3.2005	117551 (32.84)	6494 (1.81)	233894 (65.34)	357939 (100)
As on 31.3.2006	120844 (1.54)	6204 (29.93)	276658 (68.53)	403706 (100)
As on 31.3.2007	125323 (29.78)	6306 (1.50)	289142 (68.72)	420771 (100)
As on 31.3.2008	131232 (28.82)	3090 (0.68)	321045 (70.50)	455367 (100)
As on 31.3.2009	138843 (26.25)	3867 (0.73)	386241 (73.02)	528951 (100)

2.3. Sources of Financial Investment

While the Central Government has the majority equity holding in CPSEs (84.49%) investment in terms of both equity and long term loans has been

forthcoming from other parties as well, such as, the financial institutions, banks, private parties (both India and foreign), State Governments and holding companies. A perusal of 'sources of investment', moreover, (Table 2.4 shows) a significant change in

Table 2.4
Sources of Investment

(Rs. in crore)

Items	Central Govt.	State Govt.	Holding Company	Foreign Parties	FI/Banks & Others	Share Appl. Money (pending allotment)	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
As on 31.3.2005							
Equity (E)	98377	3113	11391	1421	3248	—	
Loan (L)	36848	266	28591	28550	139639	—	
E+L	135225	3379	39982	29971	142787	6494	357939
% of Total (E+L)	37.78	0.94	11.17	8.37	39.89	1.81	100.00
As on 31.3.2006							
Equity (E)	101350	3353	11152	1514	3475	—	
Loan (L)	45763	288	32040	27547	171019	—	
E+L	147113	3641	43192	29061	174494	6204	403706
% of Total (E+L)							100.00
As on 31.3.2007							
Equity (E)	93874	3438	11449	1733	14829	—	
Loan (L)	46381	117	19067	35163	188414	—	
E+L	140255	3555	30516	36896	203243	6306	420771
% of Total (E+L)	33.33	0.84	7.25	8.77	48.31	1.50	100.00
As on 31.3.2008							
Equity (E)	110470	3544	11213	1627	4378	—	
Loan (L)	51534	230	16409	32935	219937	—	
E+L	162004	3774	27622	34562	224315	3090	455367
% of Total (E+L)	35.58	0.83	6.06	7.59	49.26	0.68	100.00
As on 31.3.2009							
Equity (E)	117311	3455	11802	1322	4943	—	
Loan (L)	40451	92	20784	43710	281204	—	
E+L	157762	3547	32586	45042	286147	3867	528951
% of total (E+L)	29.83	0.67	6.16	8.52	54.09	0.73	(100.00)

the investment pattern of CPSEs over the period 2004-05 to 2008-09 Whereas the share of Central Government in total (financial) investment stood at 37.78 per cent in 2004-05, it declined to 29.83 per cent in 2008-09. The share of financial institutions / banks (and 'others'), on the other hand, that was 39.89

per cent in 2004-05 has gone up to 54.09 percent in 2008-09. In a way this shows the greater confidence of FIs and banks in the CPSEs. The share of 'foreign parties' in total financial investment has also shown increase from 8.37 per cent in 2004-05 to 8.52 per cent in 2008-09.

2.4 Plan investment in CPSEs

A good deal of investment in CPSEs in recent years has been made from internal resources (IR). Plan outlay in CPSEs, constituting internal resources (IR), extra-budgetary resources (EBR) and Budgetary Support (BS) showed a continuous increase in absolute terms, in recent years Plan outlay in CPSEs, accordingly went up from Rs.59189.79 crore in

2002-03 to Rs.132253.31 crore in 2008-09 (Table 2.5). The respective shares of IR, EBR and Budgetary Support have, nevertheless, undergone a change. While the share of IR went up from 55.51 per cent of plan outlay in 2002-03 to 55.06 per cent in 2008-09, the share of Budgetary Support came down from 8.98 percent in 2002-03 to 1.23 percent in 2008-09.

Table.2.5
**Plan Investment in CPSEs
(2002-03 to 2008-09)**

Year	Internal Resources	Extra Budgetary Resources	Budgetary support	Plan Outlay
2002-03	32858.83 (55.51)	21017.05 (35.51)	5313.91 (8.98)	59189.79 (100)
2003-04	31103.29 (49.39)	26855.66 (42.65)	5014.46 (7.96)	62973.41 (100)
2004-05	32222.46 (50.89)	26006.52 (41.07)	5090.24 (8.04)	63319.22 (100)
2005-06	42143.53 (51.31)	35723.30 (43.49)	4271.70 (5.20)	82138.53 (100)
2006-07	58981.57 (60.85)	32676.47 (33.71)	5263.76 (5.43)	96921.80 (100)
2007-08	68140.97 (62.18)	38692.82 (35.31)	2745.80 (2.51)	109579.59 (100.00)
2008-09	72815.68 (55.06)	57807.99 (43.71)	1629.64 (1.23)	132253.31 (100.00)

2.4.1 Internal Resources of CPSEs

A perusal of different components of IR, moreover, shows that the share of 'retained profit' has been showing a big increase during this period. It went up from Rs.27176.50 crores in 2002-03 to Rs.69027.46 crores in 2008-09 (Table 2.6). In terms

of respective shares of the different components of IR, namely, 'depreciation' and 'retained profit' as well, there has been a significant change. Whereas the share of 'depreciation' in IR declined from 48.79 per cent in 2002-03 to 31.03 per cent in 2008-09, the share of 'retained profit' in IR went up from 50.07 per cent in 2002-03 to 62.27 per cent in 2008-09.

Table 2.6
Internal Resources of CPSEs
(2002-03 to 2008-09)

(Rs. in crore)

Year No.	of CPSEs which generated IR	Depreciation	DRE written off	Retained Profit	Total
2002-03	129	26477.41 (48.79)	619.18 (1.14)	27176.50 (50.07)	54273.09 (100.00)
2003-04	151	30526.72 (40.48)	769.15 (1.02)	44116.90 (58.50)	75412.77 (100.00)
2004-05	149	32477.42 (38.73)	537.60 (0.64)	50847.60 (60.63)	83862.62 (100.00)
2005-06	163	34540.93 (40.36)	797.93 (0.93)	50248.20 (58.71)	85587.06 (100.00)
2006-07	154	32013.20 (33.28)	5475.33 (5.69)	58713.84 (61.03)	96202.27 (100.00)
2007-08	161	35440.21 (35.49)	5653.54 (5.66)	58767.45 (58.85)	99861.20 (100.00)
2008-09	158	34405.10 (31.03)	7427.36 (6.70)	69027.46 (62.27)	110859.92 (100.00)

2.5 Pattern of Investment

Table 2.7 below shows cognate group-wise aggregate real investment in CPSEs during the last two years, as mentioned in terms of gross block. The share of 'manufacturing' CPSEs in gross block, was the highest at 26.86 percent followed by 'mining'

(25.15%), 'electricity' (24.58%) and 'services' (23.04%). In terms of national income classification, the share of 'the industrial CPSEs' (comprising manufacturing, mining and electricity) was the largest at 76.59 per cent followed by 'the service sector CPSEs' at 23.41% during 2008-09.

Table 2.7
Pattern of Real Investment/Gross Block in CPSEs

(Rs. in crore)

SL. No.	Sector	Investment in terms of Gross Block		Growth rate over the previous year	Investment as % of total as on 31.3.2009
		31.3.2009	31.3.2008		
1.	Agriculture	108.37	100.67	7.65	0.01
2.	Mining	245,866.64	218,136.71	12.71	25.15
3.	Manufacturing	262,647.06	230,230.94	14.08	26.86
4.	Electricity	240,372.92	208,890.01	15.07	24.58
5.	Services	225,249.66	202,770.55	11.09	23.04
6.	Under Construction Enterprises	3,558.31	2,101.91	69.29	0.36
Total		977,802.96	862,230.79	13.40	100.00

2.6 Top Ten Enterprises in terms of Gross Block/Investment

Total real investment in terms of 'gross block' of top ten enterprises accounted for 68.92 percent of

the total gross block CPSEs equal to Rs.977802.96 crore as on 31.3.2009. ONGC

Limited leads the list of top ten CPSEs in terms of real investment (Table 2.8).

Table 2.8

Top Ten Enterprises in terms of Real Investment/Gross Block during 2008-09

Sl. No. CPSEs	Investment in terms of Gross Block	(Rs. in crore)
		% Share in total Real Investment
1. Oil & Natural Gas Corporation Ltd.	153850.52	15.73
2. Bharat Sanchar Nigam Ltd.	137217.99	14.03
3. NTPC Ltd.	88757.95	9.08
4. Indian Oil Corporation Ltd.	80531.35	8.24
5. Power Grid Corporation of India Ltd.	53605.33	5.48
6. Steel Authority of India Ltd.	39272.93	4.02
7. Nuclear Power Corporation of India Ltd.	34118.16	3.49
8. NHPC Ltd.	31958.70	3.27
9. National Aviation Company of India Ltd.	29340.77	3.00
10. Hindustan Petroleum Corporation Ltd.	25209.90	2.58
Total Top Ten Enterprises	673863.60	68.92
Total Gross Block	977802.96	100.00

2.7 State-wise distribution of investment in terms of Gross Block:

State wise distribution of 'gross block' shows a significant change over the years (Table 2.9). Whereas the states of Bihar (21.91 percent), M.P. (13.04 percent), West Bengal (6.71) percent and Orissa (5.65 percent) claimed the largest share in investment until 1977, it is now the state of Maharashtra (17.50 percent), A.P. (6.78 percent), U.P. (6.77 percent), Tamilnadu. (6.66 percent) and Gujarat (5.60 percent) that have the largest share had in terms of investment during the year 2008-09. These changes, in good measure, have occurred mainly on account of higher investments in

oil exploration (e.g. Mumbai High), power projects and telecommunications vis-a-vis investments in steel, heavy engineering and coal mining made in the earlier years. Some differences have also occurred due to bifurcation of states like Bihar into Bihar and Jharkhand, Madhya Pradesh into Madhya Pradesh and Chhattisgarh and Uttar Pradesh into Uttar Pradesh and Uttranchal as well as closing down of some CPSEs and conversion of other CPSE into Joint Ventures with private companies. In absolute terms, however, there has generally been increase in investments in most states. State wise investment in terms of gross block is given in Table 2.9 below.

Table 2.9
State-Wise Distribution of Gross Block[^]

Sl. No	State/Union Territory	Gross Block in Rs. crore				% share of Gross Block			
		1977	1987	1997	2009	1977	1987	1997	2009
1.	Andhra Pradesh	390.70	6761.52	19486.16	6627186	3.41	9.94	6.85	6.78
2.	Arunachal Pradesh	–	–	1489.20	6161.31	0.00	0.00	0.52	0.63
3.	Assam	312.90	3808.72	12448.89	42291.42	2.73	5.60	4.38	4.33
4.	Bihar	2509.10	6969.2	19982.51	25611.49	21.91	10.24	7.03	2.62
5.	Chhattisgarh				34036.89	–	–	–	3.48
6.	Delhi	400.70	1928.48	15014.81	26496.55	3.50	2.83	5.28	2.71
7.	Goa	3.30	35.27	144.57	3099.52	0.03	0.05	0.05	0.32
8.	Gujarat	523.40	3197.79	20092.87	54723.87	4.57	4.70	7.07	5.60
9.	Haryana	142.70	649.69	4352.25	41668.47	1.25	0.95	1.53	4.26
10.	Himachal Pradesh	11.80	527.43	4720.54	15774.83	0.10	0.78	1.66	1.61
11.	Jammu & Kashmir	5.70	117.84	6413.36	15674.88	0.05	0.17	2.26	1.60
12.	Jharkhand	–	–	–	26263.98	–	–	–	2.69
13.	Karnataka	268.20	1721.52	6439.48	37862.09	2.34	2.53	2.26	3.87
14.	Kerala	274.10	1074.44	3991.76	23378.47	2.39	1.58	1.40	2.39
15.	Madhya Pradesh	1492.70	8571.69	21503.52	43773.24	13.04	12.60	7.56	4.48
16.	Maharashtra	630.30	10905.09	54854.07	171145.38	5.50	16.02	19.29	17.50
17.	Manipur	–	139.68	148.31	341.20	0.00	0.21	0.05	0.03
18.	Meghalaya	–	4.27	53.43	330.86	0.00	0.01	0.02	0.03
19.	Mizoram	–	–	30.03	372.04	–	–	0.01	0.04
20.	Nagaland	–	78.17	465.36	1146.46	0.00	0.11	0.16	0.12
21.	Orissa	646.50	4637.65	17101.40	44044.50	5.65	6.81	6.01	4.50
22.	Punjab	197.80	641.02	2077.85	11894.29	1.73	0.94	0.73	1.22
23.	Rajasthan	227.10	780.95	6065.94	25661.52	1.98	1.15	2.13	2.62
24.	Sikkim		0.55	241.13	3484.25	0.00	0.00	0.08	0.36
25.	Tamilnadu	466.90	3018.82	13539.28	65144.57	4.08	4.44	4.76	6.66
26.	Tripura		160.83	830.54	3959.38	0.00	0.24	0.29	0.40
27.	Uttar Pradesh	376.20	3913.96	20767.92	66198.79	3.29	5.75	7.30	6.77
28.	Uttaranchal	–	–	–	18401.38	–	–	–	1.88
29.	West Bengal	768.30	4524.94	18677.33	49806.89	6.71	6.65	6.57	5.10
30.	Andaman & Nicobar Islands	–	9.89	27.10	302.23	0.00	0.01	0.01	0.03
31.	Chandigarh	–	4.06	289.30	235.26	0.00	0.01	0.10	0.02
32.	Pondicherry	–	8.53	30.40	298.31	0.00	0.01	0.01	0.03
33.	Others and unallocated	1802.80	3859.87	13082.21	51956.78	15.74	5.67	4.60	5.32
Total :		11451.20	68051.87	284361.52	977802.96	100.00	100.00	100.00	100.0

[^] as on 31st March of each financial year.

Prices of goods and services produced by public sector enterprises in India, for long, have been determined by the Government under the policy regime of ‘controlled prices’, or following the administered price mechanism (APM). The APM, in most cases, has been governed by the true cost of production (plus a reasonable return on investment). The Government may obtain the cost estimates either from ‘the management’ of the company or from ‘an expert body’. In the case of Central Public Sector Enterprises (CPSEs) in the ‘core sectors’, the Government has relied upon the Bureau of Industrial Costs and Prices (merged in 1999 with the Tariff Commission, Ministry of Commerce and Industry) for cost estimates and the consequent recommendations made by them on prices of goods and services of these enterprises.

Generally, the prices of ‘primary commodities’, such as, agricultural products and minerals is determined by the market forces of demand and supply. The prices of ‘manufactured products’ and ‘services’, on the other hand, is determined/ administered by firms based on the average/marginal cost of production and the mark-up over and above the cost to accommodate profits. The margin of ‘mark-up’, in turn, depends on the competitiveness or the degree of monopoly in the market and the elasticity of demand. Given the elasticity of demand for the product, a monopolist is able to charge a higher mark-up compared to a competitive market scenario – the mark-up being the difference between the average revenue and the marginal cost per unit of output.

In a monopoly market, a public sector enterprise can fix the price that maximizes the mark-up as well as the gross profits. That may not happen, however, if the government intervenes to moderate the price and reduce the mark-up in the interest of consumers and user industries/sectors. In general, the governments fix/administer the price of goods (and services) produced by public sector entities based on the following principles:

- a. true costs of goods and services plus a reasonable return on investment,
- b. cross-subsidization between one group and another or between one sector and another,
- c. differential price norm for peak and off-peak demand,
- d. below cost to stimulate demand under conditions of excess/unutilized capacity,
- e. lower price for providing an incentive to encourage consumption (e.g. fertilizer consumption) and higher price as a disincentive to discourage consumption (e.g. petroleum products) and
- f. different prices/multi-tariffs to include discounts for purchases on larger volumes.

In the wake of post-1991 economic liberalization, industries in the ‘core sector’ are no more the exclusive preserve of the public sector. Consequently, a good many CPSEs have ceased to be monopolies and they face intense competition in the market. The Government has gradually dismantled APM in most sectors/products and the CPSEs have been given the independence to fix the (competitive) prices on their own. The Government, however, continues to be sensitive to the needs of the poor and the impact of rise in output prices (in the core sector) on the Wholesale Price Index (WPI). Any rise in price levels of these products that is not acceptable to the Government is moderated through a combination of measures, such as, lowering of customs duties, excise and sales tax, administrative control on prices, grant of subsidies, etc.

Since the late 1990s, the Government has come to rely increasingly on various price regulatory commissions/authorities for regulating prices in the best interests of both the consumers and the producers. The writ of these regulatory commissions extends to both the public sector and the private sector enterprises.

The paragraphs below briefly discuss the pricing system in respect of products in the core sector where the CPSEs are the major players.

3.1 Coal

The Central Government was empowered under the Colliery Control Order, 1945 read with the Essential Commodities Act, 1955 to fix the grade-wise and colliery wise prices of coal. Pricing of all grades of coal was fully deregulated after the Colliery Control Order, 2000 was notified with effect from 1st January, 2000 superseding the Colliery Control Order, 1945. Accordingly, the coal companies are free to fix grade-wise prices for coal produced by them on their own based on cost of production, landed cost of imported coal as well as demand and supply scenario. There has been four revisions in coal prices since the deregulation in year 2000, the last being in October 2009.

Although the Ministry of Coal no longer sets the prices of various grades of domestic coal, the prices have been fixed by the coal companies from time to time under the guidance of the Ministry, this being a primary produce. In view of perpetual demand, both in the domestic and the international markets, there is very little price elasticity of coal. The power sector consumes nearly 75% of the domestic coal produce for the generation of electricity.

In view of the substantial impact of salary revision which hit the bottom line of the coal major Coal India Ltd. that accounts for more than 80% of the country's coal reserves, the Government of India allowed an average price hike of 11% w.e.f. 16 October 2009 (The price hike so allowed is likely to

enable Coal India Ltd to earn an additional revenue of Rs.4600 crores annually).

The Tariff Commission is, furthermore, examining the extant pricing policy for coal for the power sector and is expected to also suggest modalities for pricing of coal for other sectors. The Planning Commission, at the same time, is exploring the possibility of market-determined pricing.

Since 2004-05, Coal India Ltd. and its subsidiaries have started selling part of their production under e-auction scheme to the intending buyers (both traders and consumers). The floor price for such sale of coal under e-auction was kept at 120% of the notified price. The sale of coal under e-auction scheme has had to be discontinued soon after as per directives of the Supreme Court. Sale of coal under e-auction has been replaced by e-price booking whereby the prices are fixed at 130% of the notified price for all intending buyers, barring National Consumers Co-operative Federation (NCCF) and the state undertakings in respect of which price is fixed at 120% of the notified price. Sale of coal to user industries in the core sector is at the notified price only.

3.1.1 International Price of Coal

Fig. 3.1 below provides a comparison between the domestic price of (coking) coal and the international (f.o.b) price of coal (Newcastle) during the period 2004-05 to 2008-09. While the domestic prices were very close to international prices during 2004-05 to 2006-07, the international price of coal has moved up significantly from 2007-08.

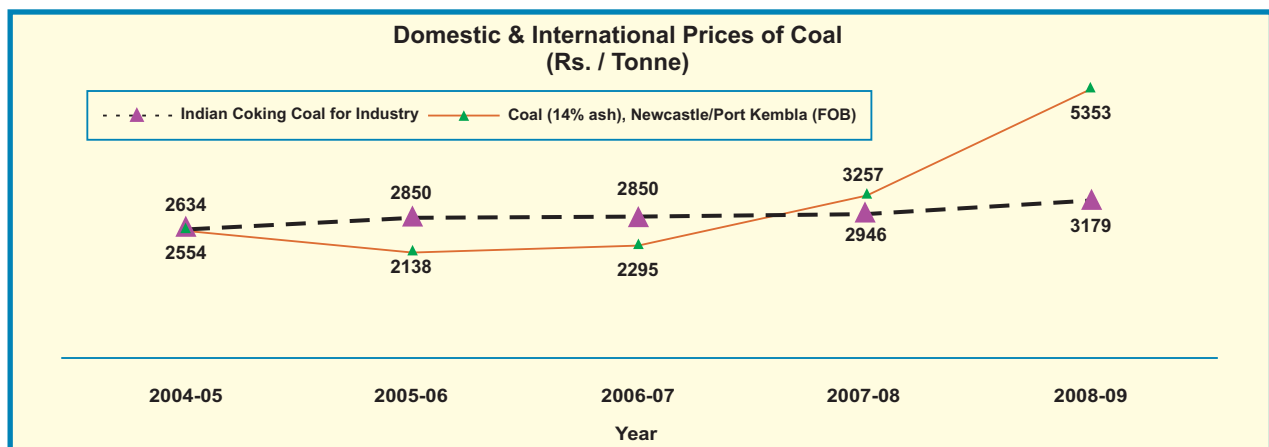


Fig. 3.1

Source: CMIE (Estimated)

The recent hike in international price appears to be mainly driven by demand. The public sector coal companies, however, continue to keep the prices low in the domestic market. Prices are largely in sync with the cost of production and the transportation and handling charges; the latter forming a significant proportion of the total cost.

3.2 Petroleum and Gas

With the changeover from administered price (APM) regime to market-determined pricing w.e.f 1.4.2002, the oil marketing companies (OMC) are fixing the prices of petroleum products after taking into account the prevalent international oil prices. About 80% of crude oil processed by the domestic refineries is imported to service domestic demand. As the cost of crude, besides taxes, constitutes a substantive part of cost of the final products, international oil prices

become the determining factors for pricing of domestic petroleum products.

International oil prices have been rising continuously since 2004. Each year, annual oil prices in international markets have averaged more than those prevailing during the previous year. The Indian basket of crude oil, which averaged about \$ 23/bbl at the time of dismantling of APM in March 2002, it averaged about \$79.25/bbl during 2007–08. It touched an all-time high of \$142.04/bbl on 03/07/2008, while averaging out at \$83.57 for 2007–08. The average price of Indian basket of crude oil during current year 2009–10 (upto 14.10.09) stood at \$ 64.20/bbl.

3.2.1 Trend of International oil prices

The trend of the international prices of crude oil and petroleum products during the period 2002–03 to July 2008, is given in Table 3.2 below :

Table 3.1
**International Prices of Crude Oil and Petroleum Products
(2002–03 to 2009–10)**

	Crude oil (Indian Basket) \$/bbl	Petrol \$/bbl	Diesel \$/bbl	Kerosene \$/bbl	LPG \$/MT
2002–03	26.65	30.04	28.86	29.24	279.67
2003–04	27.97	35.01	30.39	31.11	277.02
2004–05	39.21	48.97	46.91	49.51	368.57
2005–06	55.72	64.51	64.70	69.43	481.04
2006–07	62.46	72.62	74.12	77.03	499.67
2007–08	79.25	90.76	92.91	94.33	683.49
2008–09	83.57	89.42	101.75	104.37	688.00
2009–10 (up to 14.10.09)	64.20	70.69	68.83	69.36	482.25

3.2.2 Pricing of petrol and diesel post APM

Oil Marketing Companies (OMCs) procure petrol and diesel from refineries as per their agreements. The basic ex-storage selling prices of petrol and diesel are uniform at all refinery locations throughout the country. The Government allowed OMCs to revise retail prices within a band of +/-10% of the mean of rolling average of last 12 months and of last 3 months international C&F (cost and freight) prices. In case of breach in this band, the matter is to be taken up with the Ministry of Finance, Government of India for adjustment of excise duty rates. Prices, based on this system, was revised for the first time effective 1st August 2004 leading to price increase of Rs. 1.10/ltr and Rs. 1.42/ltr for petrol and diesel respectively.

The price band mechanism could not, however, be implemented on fortnightly basis due to steep increase in international prices. The Government took back control of price setting for petrol and diesel as per the band mechanism, and restrained the ‘pass through’ of the international prices to domestic consumers.

The Government subsequently changed the pricing of petrol and diesel to trade parity basis in June 2006 on recommendations of the Rangarajan Committee. The principle of trade parity pricing was to be applied to the refinery gate price. Accordingly, the OMCs pay trade parity price (weighted average of import parity price and export parity price in the ratio of 80:20) to refineries when they buy petrol and diesel, and import parity price to refineries for PDS Kerosene and domestic LPG.

The retail selling price of petrol/diesel for the consumers is calculated by taking into account:

- Price paid to refinery on trade parity basis
- Inland freight from refinery to depot and depot to market
- Marketing cost
- Return on capital
- Dealers commission
- Excise duty
- Value Added Tax (State VAT) and local levies.

The difference between the required price based on trade parity/import parity and actual selling price realized (excluding taxes, dealer commission) represents the under-recoveries of oil companies.

Due to the incessant increase in the international oil prices, the gap between the input price and the retail prices of the sensitive petroleum products has been widening. In order to provide some relief to the OMCs, the Government announced the following measures w.e.f 5.6.2008:

- Increase the retail selling price of Petrol by Rs. 5/litre, Diesel by Rs. 3/litre and Domestic LPG by Rs. 50/cylinder.
- Reduction in Customs duty on crude from 5% to nil and on MS and HSD from 7.5% to 2.5% and on other products like ATF from 10% to 5%
- Reduction in Excise duty by Re. 1/litre on unbranded MS and HSD.

3.2.3 PDS Kerosene and Domestic LPG

While dismantling the Administered Pricing Mechanism (APM) for major petroleum products w.e.f 1.4.2002, the Government decided that the subsidies

on PDS Kerosene and Domestic LPG, in the Post-APM era starting from 1.4.2002 will be on a specified flat rate basis for each depot/bottling Plant and will be met from the Union budget. After providing for the aforesaid subsidy, the retail prices were to vary as per changes in the international oil prices. These subsidies were to be phased out in three to five years. The subsidies were based on international prices of Kerosene and LPG prevailing in Arab Gulf market during the month of March 2002, i.e. \$23.65 per barrel and \$194 per MT respectively.

It was decided that the subsidy per selling unit for any depot/ bottling plant effective 01/04/2002 shall be frozen and remain unchanged for the financial year 2002–03. The subsidy admissible under this scheme for 2003–04 was at 2/3rd level of the rates allowed during 2002–03. The subsidy admissible for 2004–05, 2005–06 and 2006–07 was at one-third (1/3rd) level of the rates of subsidy for 2002–03. The Government had decided that this subsidy at 1/3rd level of 2002–03, (average rate of subsidy on domestic LPG cylinder is Rs.22.58/cylinder and on PDS Kerosene is 82 paise per litre) will be allowed till 31/03/2010.

3.2.4 Under recoveries of OMCs

Despite the increase in the international prices, particularly from 2004–05, the selling prices of petrol and diesel were not revised in the domestic market by the OMC's in tune with the international prices. As an administrative measure, the oil PSEs were asked to modulate the price increase in petrol and diesel besides maintaining prices of subsidized products. This resulted in under-recoveries to the OMCs as they paid the applicable import parity/trade parity prices to the refineries but could not recover their dues from retail prices of products. The gap between the retail prices based on trade parity/import parity pricing principles and the actual retail prices have resulted in huge under-recoveries to the OMCs as indicated in Table 3.2 below :

Table 3.2
Under recoveries of OMCs
(2004-05 to 2008-09)

		(Rs. crore)				
Sl. No.	Product	2004-05	2005-06	2006-07	2007-08	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	PDS Kerosene	9480	14384	17883	19102	28225
2.	Domestic LPG	8362	10246	10701	15523	17600
3.	Petrol	150	2723	2027	7332	5181
4.	Diesel	2154	12647	18776	35166	52286
	Total	20146	40000	49387	77123	103292

3.2.5 Oil Bonds and Upstream Assistance

Passing on the entire impact of the steep increase in the oil prices to the consumers would have resulted in sharp increase in the domestic prices to unaffordable levels. Hence, it was decided that the burden be shared by all the stakeholders, namely, the Government, the upstream oil companies, the oil marketing companies (OMC's) and the consumers. Besides the fiscal subsidy being provided on PDS Kerosene and Domestic LPG, the Government decided to provide relief through issue of oil bonds to OMCs which amounted to Rs. 71292 crore for 2008–09, Rs. 35290 crore for 2007–08, Rs. 24121 crore for 2006–07 and Rs. 11500 crore for 2005–06. Over and above the sharing of the financial burden by upstream companies (viz. ONGC, OIL & GAIL) and issue of oil bonds, there still remained a gap which has had to be absorbed by the public sector OMCs.

3.2.6 Measures to control impact of high international prices

The Government has taken a number of measures to rationalize taxes and duties on petrol and diesel to keep the consumer prices of these sensitive petroleum products within reasonable limits. The details of rationalisation in duties on sensitive petroleum products since June 2004 are mentioned below:

- a. Reduction in customs duties since 2004–05 :
 - i. Customs duty on petrol was reduced from 15% in August 2004 to 2.50% in June 2008.
 - ii. Customs duty on diesel was reduced from 15% in August 2004 to 2.50% in June 2008.
 - iii. Customs duty on domestic LPG was reduced from 5% in August 2004 to NIL in March 2005.
 - iv. Customs duty on PDS Kerosene was reduced from 5% in August 2004 to NIL in March 2005.
 - v. Customs duty on crude was reduced from 10% in August 2004 to NIL in June 2008.

- b. Reduction in excise duties since 2004–05 :
 - i. Excise duty on petrol was reduced from 26% (ad valorem) plus Rs.7.50 per litre (specific) in June 2004 to Rs. 13.35 per litre (specific) in June 2008.
 - ii. Excise duty on diesel was reduced from 11% (ad valorem) plus Rs.1.50 per litre (specific) in June 2004 to Rs.3.60 per litre (specific) in June 2008.
 - iii. Excise duty on domestic LPG was reduced from 8% (ad valorem) in June 2004 to NIL in March 2005.
 - iv. Excise duty on PDS Kerosene was reduced from 16% (ad valorem) in June 2004 to NIL in March 2005.

- c. LPG as “Declared Goods”

LPG (Domestic) became “Declared Goods” under CST Act and the maximum sales tax/VAT rate of 4% effective 19.4.06 was introduced across all states/Union Territories. This reduced the rates of sales tax levied by most of the States at the rate of 12.5%.

- d. Reduction in VAT by State Governments since 5th June 2008.

In order to cushion the burden of the recent price hike on petrol and diesel with effect from 5th June 2008, several State Governments like West Bengal, Bihar, Maharashtra, Gujarat, Uttar Pradesh, Kerala, Goa, Assam, Tamil Nadu (only on Diesel), Uttaranchal, Haryana (only on diesel), Jharkhand (only on diesel) and Chandigarh (only on petrol) had reduced the sales tax. State Governments of Maharashtra, Goa, Gujarat, Haryana, Chandigarh, Uttaranchal and Uttar Pradesh have reduced the VAT on LPG to Nil. State governments of Delhi and Andhra Pradesh have provided state subsidy on Domestic LPG.

3.3 Power

The Electricity Regulatory Commission Act was enacted in 1998 for creation of Regulatory Commissions at the Centre and in the States with powers, inter-alia, to regulate/ determine power tariffs. The Central Government accordingly created the Central Electricity Regulatory Commission (CERC) to regulate/ determine power tariffs of CPSEs engaged

in generation and inter-state transmission of power. CERC also issues order on Availability Based Tariff (ABT) for ensuring grid discipline.

The power sector reforms in recent years further necessitated the enactment of the Electricity Act, 2003 repealing the ERC Act, 1998. The regulatory powers of CERC constituted under the ERC Act, 1998 have been retained in respect of regulation/determination of tariff for CPSEs involved in generation and inter transmission of power. The provisions of the Electricity Act, 2003 serve to consolidate the different laws relating to generation, transmission, distribution, trading and use of electricity. The Act is aimed at taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of the consumers (and supply of electricity to all areas), rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal as well as for matters connected therewith or incidental thereto.

Under Section 178 of the Electricity Act, 2003, the CERC regulates/determines tariff of CPSEs engaged in generation and inter-state transmission of power. In compliance with Section 3 of the Electricity Act 2003, the Central Government notified the National Electricity Policy (NEP) in February, 2005. In continuation to NEP, furthermore, the Central Government notified the Tariff Policy on 6.1.2006.

As per the Electricity Act, 2003, the Regulatory Commission is to be guided by the Tariff Policy of the Government of India for determining the tariff applicable to generating companies and for transmission. It also requires regulators to continue with the systems of setting norms for operations which would provide incentive for efficiency in operations.

The tariff for electricity supplied from the CPSEs is determined by the CERC based on the CERC (Terms and Conditions of Tariff) Regulations, 2004. The tariff for electricity consists of the following:

- a. Capacity charges comprising the following :
 - Return on Equity – presently 14% post-tax return is allowed,
 - Interest on loans – interest including foreign

exchange variation on interest and loan repayment is allowed,

- Depreciation – 90% recovery of cost spread over asset life,
- Advance against depreciation – allowed for the purpose of loan repayment,
- Interest on working capital – paid on normative basis.

Full capacity charges are recovered at 80% availability and pro-rata recovery below 80%. For scheduled generation above 80%, plant load factor incentive @ Re. 0.25 /unit is allowed.

- a. Energy charges are levied on scheduled energy based on actual landed cost of fuel with normative operating parameters.

- b. Taxes, duties, and other levies, namely,

- Tax on Income derived from generation of electricity by CPSEs is computed as an expense and is recovered from bulk power customers.
- Statutory taxes, levies, duties, royalty, cess or any other imposition by Central/State Governments/ local bodies/authorities on generation of electricity (including auxiliary consumption or any other type of consumption including water, power, etc) are borne by consumers.
- There is no subsidy incorporated in the calculation of power tariff.

In furtherance of the objectives of the Electricity Act, 2003, the Rural Electricity Policy was also announced by the Government of India in August, 2006.

The pricing policy of nuclear power in the country and the associated tariffs are regulated by the Government of India in accordance with the provisions of the Atomic Energy Act, 1962.

3.4 Steel

The Indian steel industry was one of the first few major sectors to be comprehensively deregulated as part of the general economic reforms. The erstwhile regime of controls was wholly dismantled in 1992 through the following policy changes :

- (a) prices and distribution (with the exception of a few strategic areas like SSIC) were freed,

- (b) trade barriers came down with reduction in tariff rates and removal of physical restrictions (canalizing and licensing) on imports and exports,
- (c) freight ceilings replaced freight equalization,
- (d) FDI in Iron & Steel was granted automatic entry, and
- (e) technology imports were made easier
- (f) capacity controls and reservation on the BF-BOF sectors were withdrawn.

Steel pricing was, therefore, deregulated and prices came to be determined through competition in the market. The Ministry of Steel has, nonetheless, constituted a ‘Steel Price Monitoring Committee’ (SPMC). The Committee seeks to provide an interface between the producers and consumers of steel. The objective of the Committee is to keep a watch on the price movement. The Committee functions as a watchdog and ensures that a free and fair environment

prevails in the market. The selling prices of steel and steel products are, inter alia, based on the following factors :

- a. demand and supply position,
- b. competitor pricing,
- c. landed cost of imports,
- d. levels of Inventory,
- e. freight from producing point to consuming point,
- f. market position for customers’ end products.

3.4.1 International Price of Steel

Fig. 3.2 & 3.3 provide a comparison between domestic and international price of steel during the period 2004–05 to 2008–09. While the domestic prices of steel were higher than international prices until 2007–08, the international prices of steel (CR coils and HR coils) have overtaken domestic prices since 2008–09.

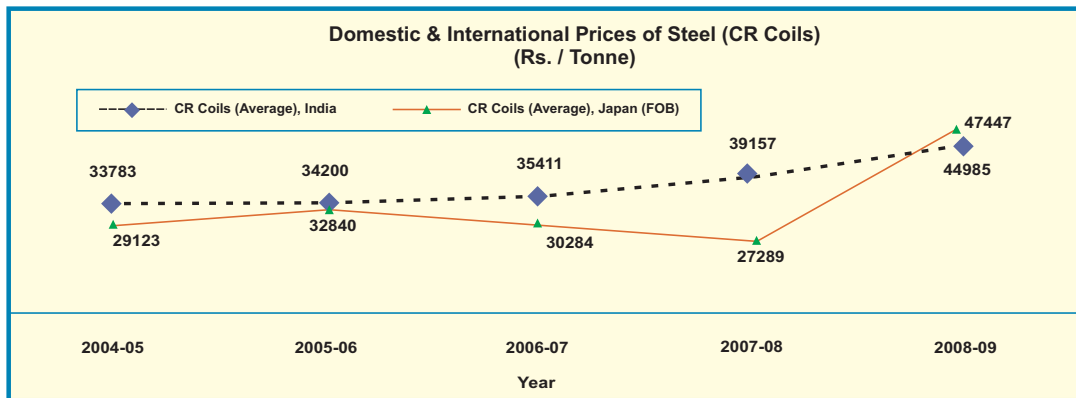


Fig. 3.2

Source: CMIE (Estimated)

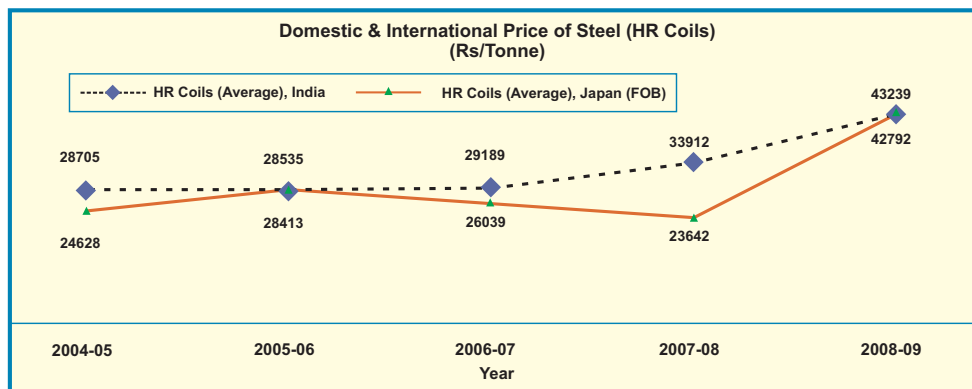


Fig. 3.3

Source: CMIE (Estimated)

3.5 Fertilizers

Urea is the main nitrogenous fertilizer constituting about 60% of the total fertilizer consumption in the country. It is covered under statutory price (and partial distribution) control and is sold to the farmers at the notified sale price. All varieties of fertilizers, except Urea, were removed from price and distribution control in August, 1992. The Government of India, however, indicates the maximum retail price (MRP) in respect of major phosphatic and potassic fertilizers, namely, Di-Ammonium Phosphate (DAP), Muriate of Potash (MOP) and 11 grades of Complex Fertilizers. The MRPs for Single Super Phosphate (SSP) are indicated by the respective State Governments.

The statutorily notified sale price of urea and indicative MRPs of decontrolled phosphatic and potassic fertilizers are generally less than the cost of production of these fertilizers. The difference between the normative cost of production and the selling price/MRP is paid as subsidy/concession to the manufacturers. As the consumer prices of both indigenous and imported fertilizers are fixed uniformly, financial support (being the difference between the cost of import and marketing/distribution and MRP) is also given on imported phosphatic and potassic fertilizers by the Government in the form of subsidy.

3.5.1 Retention Price Scheme (RPS)

Until 31st March, 2003, fertilizer subsidy to urea manufacturers was being regulated in terms of the provisions of the Retention Price Scheme (RPS). Under RPS, the difference between retention price (cost of production as assessed by the Government plus 12% post tax return on net worth) and the MRP to be paid by the farmers was reimbursed as subsidy to the urea units. Under the RPS, retention price used to be determined unit-wise, which varied from unit to unit depending upon the technology, feedstock used, level of capacity utilization, power consumption, distance to be covered for sourcing of feedstock/raw-materials etc. Although the RPS achieved its objective of increasing investment in the fertilizer industry and thereby created new capacities and enhanced fertilizer production (along with increased use of chemical fertilizers), the pricing scheme was criticized on the

grounds of being in the nature of 'cost plus' devoid of any incentives for achieving of better operational efficiency.

3.3.2 New Pricing Scheme (NPS)

A 'group based' pricing scheme, namely the New Pricing Scheme (NPS) for urea units was introduced subsequently w.e.f. 1.4.2003, replacing the erstwhile RPS. The primary goal of the NPS is to encourage efficiency based on the usage of the most efficient feedstock, state-of-the-art technology etc. NPS is being implemented in stages. Stage-I was for one year duration i.e. from 1.4.2003 to 31.3.2004. Stage-II was of two and half years' duration i.e. from 1.4.2004 to 30.9.2006. Stage-III policy of the NPS has been made effective from 1.10.2006 and will continue till 31.3.2010. The important features of the Stage-III Policy are :

- (a) resumption of production by units under shutdown, and
- (b) conversion of non-gas based units to NG/LNG.

Resumption of production by urea units currently not in production, viz, RCF-Trombay-V, FACT-Cochin and Duncans Industries Limited (DIL)-Kanpur is allowed based on natural gas/LNG/CBM/Coal gas. Upon resumption, the base concession rate of these units will be the Stage-II concession rate of the group to which they belonged, or their own concession rate updated till 31.3.2003 for all costs and thereafter adjusted for the feedstock changeover, whichever is lower.

Under the policy for 'conversion of non-gas based units to NG/LNG', all functional Naphtha and FO/LSHS based units will be converted to gas based within a period of 3 years. Thereafter, Government will not subsidize the high cost urea produced by the non-gas based urea units.

In order to provide incentives for conversion to gas, there will be no mopping up of energy efficiency for a fixed period of 5 years for Naphtha based as well as for FO/LSHS based units. Capital subsidy will be considered for FO/LSHS based units for which the Department of Fertilizers, Government of India will notify a separate scheme in consultation with the Department of Expenditure (DOE), Ministry of Finance.

With the projected improved availability of gas from 2009 onwards, it is expected that fresh investment in fertilizer sector will take place. The Government announced a new investment policy in September 2008 based on Import Parity Pricing (IPP) for the Urea sector to attract the necessary investment. The policy is expected to create availability of Urea at a price lower than IPP, and through reduction in imports, is expected to bring down the import price as such.

The Government, furthermore, notified in June 2008 a farm-gate-based regulated nutrient price regime for use in the production of subsidized complex fertilizers. This will lead to decrease in existing MRPs of complex fertilizers. Under existing pricing regime, the price of nutrients in complex fertilizers were higher than the price of same nutrients in other straight fertilizers like Urea, DAP, MOP and SSP. This has led to comparatively higher usage of

straight fertilizers vis-à-vis complex fertilizers, the latter being agronomically better.

In order to encourage setting up of fertilizer plants through Joint Ventures (JV) in foreign countries where gas is available in abundance and is much cheaper, such JVs for production of urea may be set up subject to the condition that the Government of India will enter into long term buy-back arrangements with these JVs. Accordingly, suitable mechanisms can be evolved for securing long term fertilizer related supplies from abroad.

3.3.4 International Price of Urea

Fig. 3.5 below provides a comparison between domestic and international prices of Urea during the period 2003–04 to 2007–08. While the subsidized urea prices are obviously much lower, the domestic urea prices (inclusive of subsidy) have been very close to international prices.

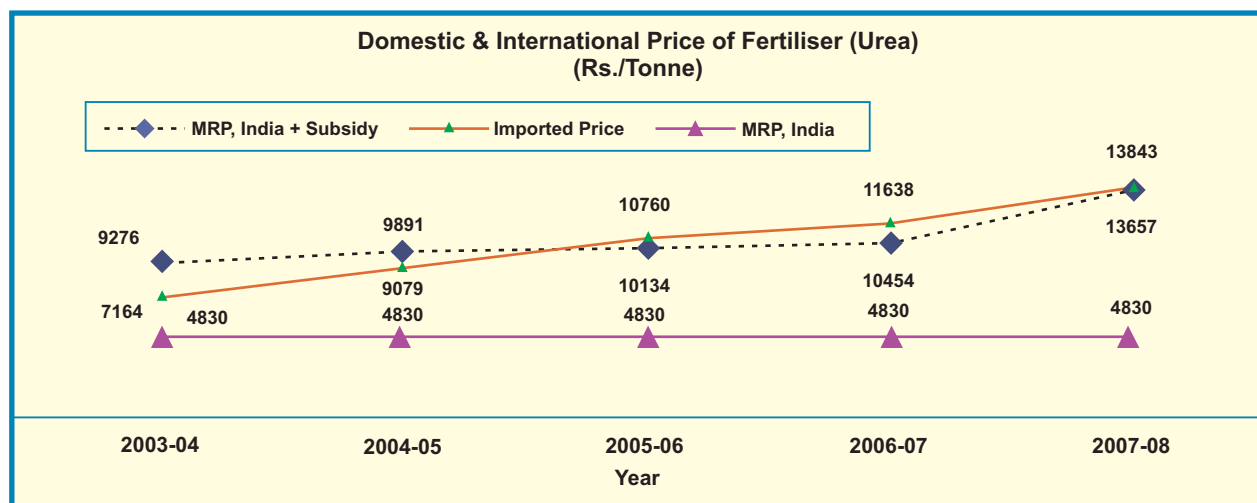


Fig. 3.4

Source: Indian Fertilizer Scenario (2009), Department of Fertilizer, Government of India.

3.6 Telecommunications

Under the TRAI Act 1997, the Telecom Regulatory Authority of India (TRAI) notifies the rates at which telecommunication services within India and outside the country are to be charged. The Telecommunication Tariff Order was notified for the first time in March, 1999 by TRAI. Tariff amendment Orders are issued from time to time to reflect changes in tariff framework. The recommendations and orders issued by TRAI are binding on both public sector

(MTNL and BSNL) as well as private sector telecom operators.

Currently, the tariff for telecom services is left to the discretion of telecom operators. They may decide the prices in terms of market forces, except in the areas of :

- a. rental, free call allowance and local call charges for fixed line rural subscribers,
- b. leased circuits, and

c. national roaming services in mobile telephony.

The providers of telephone services are, moreover, free to offer various tariff plans to their subscribers. These plans may vary substantially in terms of the combinations of monthly rental, call charges and free call allowances. These tariffs, however, have to be consistent with the regulatory principles of non-discrimination and non-predation, and in compliance of the prescribed Interconnection Usage Charges(IUC).

Wherever applicable, the following points are taken into consideration by CPSEs operating in the telecom sector for price determination a) tariff ceiling prescribed by TRAI for different services, b) tariff offered to consumers by competitors for similar services, c) customers' needs and preferences, and d) affordability of customer segments.

On account of increase in sales volumes and competition in the market, the tariff of various telecom services has been coming down drastically. The STD rate of Rs. 2.40 per minute in April 2005 for landline phones in the case of MTNL came down to Rs. 1 per minute in April 2006, and continues to be at the same price to this day. (If the STD rate was to be adjusted to match the Wholesale Price Index (WPI) during this period, the current rate would be Rs. 2.88 per minute).

3.7 Pharmaceuticals

Prices of pharmaceutical products in CPSEs are fixed based on the Drugs Price Control Order (DPCO), 1995. Pharmaceutical products are, moreover, categorized as Scheduled and Non-Scheduled formulations.

3.7.1 Prices of Scheduled Pharmaceutical Products

The Maximum Retail Prices (MRP) of scheduled formulations are fixed and revised by the National Pharmaceutical Pricing Authority (NPPA), Government of India.

3.7.2 Prices of Non-scheduled Pharmaceutical Products

The prices of non-scheduled formulations are fixed by the managements of CPSEs on cost plus basis.

On 27.7.2006, the Government approved the proposal with regard to preferential purchase of 102 drugs/pharmaceuticals produced exclusively by the CPSEs and their subsidiaries by the Government Departments, CPSEs and autonomous bodies of the Central Government at NPPA approved/certified rates minus discounts up to 35%. The preferential purchase policy will remain valid for a period of 5 years, effective 7th August 2006.

3.8 Agriculture Products

3.8.1 Outputs : Wheat & Paddy

The Food Corporation of India (FCI) has been intervening in the foodgrain market through price support policy for farmers and through the public distribution system for consumers. Price support policy is implemented by the FCI primarily in regard to wheat and paddy. The two main objectives of this market intervention are (a) to protect the farmers from volatility in grain markets, and (b) to correct the trade bias against agriculture vis-à-vis other sectors of the economy.

The initial recommendation in regard to procurement price is made by the Commission on Agricultural Costs and Prices (CACAP) in the Ministry of Agriculture, Government of India. These prices are arrived at on the basis of cost of cultivation and several other specified factors rather than on demand-supply basis.

The distribution of foodgrains to the vulnerable sections of the population by FCI is done at Central Issue Price (CIP). Despite increase in the Minimum Support Prices for both wheat and paddy in successive years, there has been no revision of CIP of foodgrains (wheat and rice) for Below the Poverty Level (BPL) population, Above the Poverty Level (APL) population and for Antyodaya Anna Yojana (AAY) since July1, 2002.

3.8.2 Inputs : HYV Seeds

National Seeds Corporation Ltd. (NSC) and State Farms Corporation of India Ltd. (SFICI) are the two CPSEs engaged in production of quality high-yield variety (HYV) seeds. The Government has not issued any direction to these PSEs on fixation of prices of seeds, which are generally determined by market forces. NSC and SFICI are engaged mainly

in production of high volume of low cost seeds of cereals and pulses and have been striving to make quality seeds available to Indian farmers at affordable prices to ensure national food security.

After globalization of the Indian economy, a number of private seed companies have entered Indian market. The Central PSEs are facing stiff competition from private sector seed companies, especially in case of hybrid seeds. In view of the above, the Government has left it entirely to the CPSEs to fix prices of their products, allowing them the freedom to maintain a balance between social objectives and commercial viability.

The Government does not provide any subsidy on seeds produced by NSC and SFCI. As regards recommendation of Price Regularity Commission, it is stated that there are no such recommendations binding on NSC/SFCI.

Seed pricing comprises of two stages i.e. (i) seed production/procurement, (ii) seed sale. Bulk of seed production, both foundation and certified, is largely arranged through regular registered contracts with seed growers.

For finalizing the sale price of hybrid/high variety seed, the main factors taken into account are:

- a. the relevant Minimum Support Price (MSP) fixed for the crop/season,
- b. the commercial produce price in the local mandis/market yards, especially in the ultimate end-use/seed sale areas,
- b. all the costs incurred in terms of processing, treatment, packing, labeling, tagging, sealing, transportation, storage, handling, losses in the process, publicity, sales promotion, interest burden, dealers discount, etc

The Central Public Sector Enterprises (CPSEs) are technologically complex identities characterized by large scale production. These are capital intensive industries characterized by higher productivity per unit of input/hour. Both endogenous and exogenous factors influence 'productivity'. While endogenous factors may constitute of better technology, quality of labour, scale of output and management practice, the exogenous factors may comprise interest rates, tax policies, infrastructure facilities, weather conditions, law and order and the overall state of the economy.

Productivity, in turn, is the measure of efficiency in use of resources (or inputs) in the production of various goods and services. A comparison with the peer groups or over time throws light on if 'productivity' is high or low, or whether there is improvement/deterioration in condition during the period under consideration. Some of the important measurements of 'productivity' are capacity utilization, inventory in relation to sales and use of energy in the enterprise. The paragraphs below discuss each of these measurements of productivity in relation to CPSEs.

4.1 Capacity Utilization

Capacity utilization is one of the several indicators for measuring efficiency of any unit. Various

factors, such as, state of the plant and machinery, technology used, inventory management, management practice, work ethics and external environment affect capacity utilization. Capacity utilization in this report has been derived based on installed/rated capacity. Wherever installed/rated capacity is not available for various reasons, assessment of the management vis-à-vis the capacity utilization of the enterprises has been used. In the case of multiple-product units, capacity utilizations have been worked out with reference to major products.

The detailed enterprises-wise statement, indicating the unit-wise major products and the capacity utilization, for the last three years is given at the end of this Volume (Statement No. 18). The paragraphs below discuss cognate group-wise rated capacity of the enterprises and extent of utilization.

Cognate group-wise analysis of some of the manufacturing enterprises/units and extent of utilization are given in the following paragraphs.

4.1.1 Iron & Steel

The Information on capacity utilization for the last 3 years in respect of six CPSEs is presented in the Table below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilization (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Mishra Dhatu Nigam Ltd.	Super Alloys	2729 (MT)	70	70	46
2.	Maharashtra Electros melt Limited	Ferro Manganese	1,00,000/t per year	124	122	133
3.	Rashtriya Ispat Nigam Ltd.	Hot metal	3.4 ml.t	104	115	119
		Liq. steel	3.0 ml.t	105	111	120
		Bars	0.71 ml.t	116	121	124
		Wire rods	0.85 ml.t	114	117	124
		Saleable steel	2.66 ml.t	102	116	124
4.	Sponge Iron India Ltd.	Sponge Iron	60,000 TPA	51	72	92
5.	Ferro Scrap Nigam Ltd.	Recovery of scrap	11.70 Lakh MT	93.42	94.53	98.46
6.	Steel Authority of India	Saleable Steel	11.07 ml.t	113	118	114

- The Mishra Dhatu Nigam Ltd. produced 1908 MT of alloys during 2008-09 as against 1919 MT produced in the previous year.
- The Rashtriya Ispat Nigam Ltd. produced 3.55 million tonne of hot metal, 3.15 million tonne of liquid steel, 0.83 million tonne of bars, 0.97 million tonne of wire rods and 2.70 million tonne of saleable steel during 2008-09 as against a production of 3.91 million tonne of hot metal, 3.32 million tonne of liquid steel, 0.86 million tonne of bars, 0.99 million tonne of wire rods and 3.07 million tonne of saleable steel during the previous year.
- Sponge Iron India Limited produced 30,489 Tonne per annum (TPA) of Sponge Iron during

the year 2008-09 as compared to 43,331 Tonne per annum during the year 2007-08.

- Maharashtra Electros melt Limited produced 124387 MT of Ferro Alloys during the year 2008-09 as compared to 122024 MT during the previous year.
- Steel Authority of India Limited produced 12.494 million tonne of saleable steel during the year 2008-09 as compared to 13.044 million tonne during the previous year.

4.1.2 Minerals and Metals

The information in respect of four enterprises for the years 2006-07, 2007-08 and 2008-09 is presented in the Table below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Hindustan Copper Ltd.	Wire Rod	60,000 MT	86	97	71
		Cathodes	47,500 MT	63	94	84
2.	Indian Rare Earths Ltd.	Ilmenite	4,64,000 MT	75	88	84
		Rutile	20400 MT	71	84	77
		Zircon	29000 MT	77	94	77
3.	KIOCL Limited	Iron Ore Pellets	3.5 Million Tonne	38	55	18
		Pig Iron	0.216 Million Tonne	55	73	75
4.	NMDC Limited	Iron Ore	279.00 lakh Tonne	102.20	106.87	131.13

- The Hindustan Copper Ltd. produced 30036 MT of cathode and 51777 MT of wire rods during 2008-09 as compared to 44734 MT of cathode and 58223 MT of wire rods during the previous year respectively.
- The Indian Rare Earths Ltd. produced 356340 MT ilmenite, 13856 MT rutile and 19392 MT zircon during the year 2008-09. The corresponding figures for the previous year were 403316, 15784 and 26276 MT respectively.
- KIOCL Limited produced 1.316 million tonne

of iron ore pellets and 0.118 million tonne of pig iron during 2008-09 as compared to 1.927 million tonne of iron ore pellets and 0.157 million tonne of pig iron in 2007-08.

- NMDC Limited produced 285.15 lakh tonne of Iron Ore during the year 2008-09 as compared to 298.16 lakh tonne in the previous year.

4.1.3 Coal and Lignite

The information on capacity utilization for the last 3 years in respect of six units is presented in the Table below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
1.	Bharat Coking Coal Ltd.	Raw Coal	29.138 MT	63.08	62.06	60.95
2.	Eastern Coalfields Ltd.	Raw Coal	29.385 MT	95.75	30.91	105.76
3.	Northern Coalfields Ltd.	Coal	65.51 MT	81.19	85.84	85.56
4.	South Eastern Coalfields Ltd.	Coal – Under ground	19.69 MT	89.2	82.4	94.2
		Coal – Open Cast	84.86 MT	98.5	97.3	110.4
5.	Neyveli Lignite Corpn. Ltd.	Lignite	24.0 MT	87.56	89.78	88.35
6.	Coal India Limited	Coal	412.13 MT	97.96	90.94	104.89
		OB	710.09 MCuM	90.85	92.01	91.01

- Northern Coalfields Limited produced 63.65 MT of Coal during the year 2008-09 as compared to 59.57 MT in the previous year.
- Bharat Coking Coal Limited produced 25.514 MT of Raw Coal (Departmental) during the year 2008-09 as compared to 25.215 MT during the year 2007-08.
- South Eastern Coalfields Limited produced 101.15 MT of Coal during the year 2008-09 as compared 93.79 MT during the previous year.

- Eastern Coalfields Limited produced 28.14 MT of Raw Coal during the year 2008-09 as compared to 24.06 MT in the previous year.
- The Neyveli Lignite Corporation Ltd. produced 21.307 MT of lignite during 2008-09 as compared to 21.586 MT during the previous year.
- The Coal India Limited produced 403.73 MT of Coal in 2008-09 as compared to 379.46 MT in 2007-08.

4.1.4 Electricity

The information in respect of six enterprises for the last 3 years is given in the Table below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	NHDC Limited	Electrical Energy (Hydro)	1520 MW	98.12	98.45	98.13
2.	NHPC Limited	Electricity	3614.2 MW	93.61	96.12	94.13
3.	Neyveli Lignite Corporation Ltd.	Power Gross (MU)				
		2490 MW	74.47	79.90	76.94	
4.	North Eastern Electric Corporation Ltd.	Electricity	1130 MW	82.24	83.19	69.48
5.	Power Grid Corporation of India	Transmission	71,500 MVA	99.55	99.65	99.20
6.	Satluj Jal Vidyut Nigam Ltd.	Energy	1500 MW	96.082	96.671	92.366

- The Satluj Jal Vidyut Nigam Limited generated 6608.69 Million Units of Energy during 2008-09 as against 6448.98 Million Units during the previous year.
- Neyveli Lignite Corporation produced 15768 Million Units of power during 2008-09 as

compared to 17457 Million Units during the previous year.

4.1.5 Petroleum (refinery & Marketing)

The information in respect of seven enterprises for the last 3 years is given in the Table :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Bharat Petroleum Corporation Ltd.	Crude	19500 TMT	102.3	107.4	101.4
2.	Chennai Petroleum Corporation Ltd.	Manali - Crude	9.5 MMT	102	103	103
		CBR - Crude	1.0 MMT	42	46	61
3.	Hindustan Petroleum Corporation Ltd.	Mumbai - Crude	5500 TMT	120.9	133.7	134.8
		Visakh - Crude	7500 TMT	122.0	125.5	123.3
4.	Indian Oil Corporation Ltd.	Crude Oil	49700 TMT	103.3	101.1	102.7
5.	GAIL (India) Limited	LPG	1110844 MT	97.9	93.9	92.4
		Liquid Hydro-carbon	1505126 MT	93.1	89.5	89.3
		Polymers	410000 MT	102.45	115.1	114.2
6.	Numaligarh Refinery Limited	LPG, MS, ATF, SKO, HSD	3.0 MMT	75.0	85.6	83.5
7.	Mangalore Refinery Petrochemicals Limited	Crude	9690000 MT	129.89	129.48	129.33

(TMT – Thousand Metric Tonne; MMT – Million Metric Tonne; MT – Metric Tonne)

- The GAIL (India) Ltd. produced 10.26 lakh MT of LPG during 2008-09 as against a production of 10.42 lakh MT during the previous year. It also produced 420026 MT polymers as compared to 385581 MT in previous year.
- During 2008-09, Hindustan Petroleum Corporation Ltd. achieved 15.81 MMT thrupt as against 16.77 MMT in the previous year. While Mumbai Refinery operated at 120.9% capacity utilization, the Visakhapatnam Refinery operated at 122.0% capacity utilization.
- The combined throughput by the seven refineries of the Indian Oil Corporation Ltd. during the year 2008-09 was 51364.7 TMT as against the previous year's throughput of 47401.2 TMT.

IOC produced 21.81 MT of HSD, 4.26 MT of SKO, 4.83 MT of MS, 1.73 MT of LPG and 2.04 MT of ATF during the year 2008-09. The corresponding figures for the year 2007-08 were 19.61 MT, 3.77 MT, 4.30 MT, 1.63 MT and 2.13 MT respectively.

- NRL produced 1.928 MMT of LPG, MS, ATF, SKO & HSD in 2008-09 as compared to 2.189 MMT in the previous year.
- MRPL has processed 125.32 lakh MT of crude in 2008-09 as compared to 125.5 lakh MT in 2007-08.

4.1.6 Fertilizers

The capacity utilization by the five enterprises during the last 3 years is given in the Table below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Brahmaputra Valley Fertilizer Corporation Ltd.	Urea – Namrup-II	240000 MT	25.77	32.49	25.42
		Urea – Namrup-III	270000 MT	47.66	93.34	91.59
2.	Fertilizers and Chemicals Travancore Ltd.	Factamphos 20:20	633500 MT	95.5	67.2	113.8
		Ammonium Sulphate	225000 MT	57.3	13.5	81.6
3.	Madras Fertilizers Ltd.	Caprolactam	50000 MT	27.1	13.5	82.7
		Ammonia	346500 MT	67.0	76.5	81.2
		Urea	486750 MT	83.4	90.5	97.2
		NPK	840000 MT	–	4.2	6.8
		Bio-fertilizer	250 MT	183.3	155.3	91.3
4.	National Fertilizers Ltd.	Urea	3231000 MT	103.5	101.1	103.7
5.	Rashtriya Chemicals and Fertilizers Ltd.	Thal – Urea	1707000 MT	112	107	109
		Thal – Ammonia	990000 MT	111	107	109
		Tromb – Methanol	49000 MT	109	127	122
		Tromba – Suphala	300000 MT	157	156	161
		Trombay– Ammonia-V	297000 MT	94	89	71

(MT – Metric Tonne)

- The Brahmaputra Valley Fertilizer Corporation Ltd. produced 3.08 lakh MT of urea during the year 2008-09 as compared to 3.30 lakh MT during the previous year.
- The Madras Fertilizers Ltd. produced 2.81 lakh MT ammonia, 4.73 lakh MT urea and 0.57 lakh MT NPK during 2008-09. The corresponding production figures for the previous year were 2.65 lakh MT ammonia, 4.40 lakh MT urea and 0.35 lakh MT NPK.
- The National Fertilisers Ltd. produced 33.44 lakh MT of urea during 2008-09 as against

the production of 32.68 lakh MT during the previous year.

- The Rashtriya Chemicals and Fertilizers Ltd. produced 19.04 lakh MT Urea, 0.54 lakh MT Methanol and 4.71 lakh tonne Suphala during the year 2008-09 as against 18.32 lakh MT Urea, 0.63 lakh MT Methanol and 4.68 lakh tonne Suphala during the previous year.

4.1.7 Chemicals and Pharmaceuticals

The details of capacity utilization in respect of six enterprises are given below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Bengal Chemicals & Pharmaceuticals Ltd.	Phenol	3000 KL	92.17	91.7	83.66
		Hair Oil	800 KL	75.48	78.61	43.63
		Tablet	1500 Lakh	126.07	82.0	191.27
		Capsule	500 Lakh	47.50	34.14	97.9

		Ointment	60 MT	143.67	109.83	132.83
		Naphthalene	144 MT	124.10	135.07	123.47
2.	Hindustan Antibiotics Ltd.	Vials	480 lakh	92.77	84.82	56.13
		Tablets	2400 lakh	85.68	80.95	50.64
		Capsules	2040 lakh	59.47	59.30	22.99
		I.V. Fluids	120 lakh	92.62	88.17	68.63
		Agrochem	48 lakh	121.49	108.91	87.13
3.	Hindustan Salts Ltd.	Liquid Bromine	900 TPA	35	48	66
4.	Indian Drugs & Pharmaceuticals Ltd.	Tablets	1641 Million nos.	38	57	25
		Capsules	430 Million nos.	30	27	7
		Liquid Orals	600 Kilo liters	30	19	7
		Dry Syrup	20 Lakh bottles	130	50	30
5.	Karnataka Antibiotics and Pharmaceuticals Ltd.	Capsules	378 Lakhs	129	61	48
		Liquids/ Parenterals	169 Lakhs	85	69	112
		Tablets	1350 Lakhs	141	154	116
		Dry Powder Vials	618 Lakhs	87	75	76
		Dry syrup & suspension	30 Lakhs	93	73	70
6.	Projects & Development India Ltd.	Catalyst	1260 MT	14.44	8.33	17.46

(KL – Kilo Liters; TPA – Tonne Per Annum; MT – Metric Tonne)

- Bengal Chemicals & Pharmaceuticals Ltd. produced 2765.20 KL pheneol, 603.80 KL hair oil, 18.91 crores tablets, 237.50 lakh capsules and 86.20 MT ointment during 2008-09. The comparative figures for the previous year were 2750.9 KL, 628.9 KL, 12.3 crores, 170.7 lakh and 65.9 MT respectively.
- The Hindustan Antibiotics Ltd. produced 2056 lakh tablets, 1213 lakh capsules and 111.15 lakh I.V. fluids during 2008-09. The comparative figures for the previous year were 1943 lakhs, 1482 lakhs and 105.81 lakhs respectively.
- Indian Drugs & Pharmaceuticals Ltd. produced 616 Million tablets, 130 Million capsules, 178 Kilo Liters of liquid orals and 26 Lakh bottles of dry syrup during 2008-09. The comparative figures for the previous year were 929 Million, 117 Million, 116 Kilo liters and 10 Lakh bottles respectively.
- Karnataka Antibiotics and Pharmaceuticals Ltd. produced 3515 lakh tablets and 580 lakh capsules during 2008-09 as compared to 2082 lakh and 229 lakh respectively during the previous year.

4.1.8 Heavy Engineering

The information in respect of seven companies for last 3 years is tabulated below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Bharat Heavy	Turbine	10000 MW	76	116	113

	Electricals Limited	Generator	10000 MW	72	123	110
		Boilers, Valves & Boilers Aux.	417014 MT	153	188	171
		Power Transformers	20500 MVA	106	117	107
		Electrical Machines	1340 Nos.	101	118	105
2.	Bharat Heavy Plate & Vessels Limited	Processplants, Cryogenics, etc.	23210 MT	25.32	50.78	38.31
3.	Bharat Wagon & Engg. Co. Ltd.	Wagons	880 VUs	20	45	51
4.	Braithwaite & Co. Ltd.	Wagon	1200 VUs	52.6	49.6	52.6
		Bogie	1800 Nos.	65.2	62.8	64.1
		Coupler	1000 Nos.	32.5	28.6	17.3
		Steel Castings	3500 MT	56.9	55.8	64.8
5.	Burn Standard Co. Ltd.	Wagon	2100 VUs	37.8	51.2	51.8
		Bogie	2400 Nos.	31.8	32.9	52.3
		Coupler	2400 Nos.	17.2	46.2	60.2
		Refractory	61292 MT	155.1	174.8	176.2
6.	Triveni Structural Ltd.	Building Structures	13600 MT	2.0	9.0	4.0
7.	Tungabhadra Steel Products Ltd.	Hydro Mech. Equipments & structurals	8213 MT	1.47	1.49	1.10
		Hydel Power generation	50.09 Lakh MW	63.30	116.15	65.50

- Bharat Heavy Electricals Ltd. produced 7572 MW of turbine, 7239 MW of generator and 6.4 Lakh MT of boilers, valves & boiler auxiliaries during 2008-09 as compared to 6947 MW turbine, 7364 MW generator and 4.65 Lakh MT boilers, valves & boiler auxiliaries during the previous year.

MT hydro mechanical equipments & structurals and 31.707 lakh units of hydel power during the year 2008-09 as compared to 123 MT and 58.18 lakh units in the previous year.

4.1.9 Medium and Light Engineering

The details of capacity utilization in respect of 10 enterprises for the last 3 years are given in the Table below :

- Tungabhadra Steel Products Ltd. produced 121

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Balmer Lawrie & Co. Limited	Barrels & Drums	39.09 Lakh nos.	78	79	91
		Greases & Lubricants	73200 MT	48	54	45
		Leather Chemicals	3350 MT	156	146	144
2.	Biecco Lawrie Limited	Control & Switchgear	1375 nos.	102	94	102
		Lube oil blending	10000 KL	17	16	23
3.	Bharat Pumps and Compressors Ltd.	Pumps	283 nos.	56	47	57
		Compressors	23 nos.	91	89	22

		Gas Cylinders	48000 nos.	27	32	29
4.	Central Electronics Limited	Solar PV Modules	10000 KW	29	28	86
5.	HMT Limited	Tractors	8800 nos.	41.49	60.25	72.74
6.	HMT Bearings Ltd.	Bearings	3100000 nos.	6.65	12.48	22.87
7.	HMT Chinar Watches Ltd.	Gents watches	500000 nos.	1.64	6.73	15.48
8.	HMT Machine Tools Ltd.	Machine tools & Printing	1297 nos.	56.90	64.53	57.59
9.	HMT Watches Ltd.	Watches and components	7500000 nos.	3.99	4.44	4.59
10.	Richardson and Cruddas (1972) Ltd.	Fabrications	28300 MT	33	47	27
		Plant equip.	2960 MT	188	113	45
		Hand Pump	20000 nos	3	5	0.13

(KL – Kilo Liters; KW – Kilo Watt; MT – Metric Tonne)

- Balmer Lawrie & Co. Limited produced 30.63 lakh barrels, 0.35 lakh MT of grease and lubricants and 5222 MT of leather chemicals during the year 2008-09 as compared to 34.52 lakh barrels, 0.39 lakh MT of grease and lubricants and 4876 MT of leather chemicals in the previous year.
- Biecco Lawrie & Co. Limited produced 1403 switchgear panels and blended 1687 KL of lube oil in 2008-09 as compared to 1297 nos. and 1582 KL in the previous year.
- Bharat Pumps and Compressors Ltd. produced 93 pumps and 22 compressors as against its installed capacity of 283 and 23 respectively. The corresponding production in the previous year was 79 and 7. It produced 11770 gas cylinders in 2008-09 as against 15387 in 2007-08.
- Central Electronics Ltd. produced 2906 KW Solar PV modules during the year 2008-09 as compared to 2833 KW during the previous year.
- The HMT Ltd. (holding company) produced 3651 tractors during the year 2008-09 as against 5302 during the previous year. The production of watches and components by HMT Watches Ltd. was 2.99 lakh as compared to 3.33 lakh in the previous year. The production of bearings, etc. by HMT Bearings Ltd. was 2.06 lakh as compared to 3.87 lakh in the previous year. HMT Machine Tools Ltd. produced 738 machine tools and printing machines in 2008-09 as compared to 837 in the previous year.
- Richardson and Cruddas has produced 9427 MT fabrications during 2008-09 against 13303 MT in the previous year.

4.1.10 Transportation Equipment

The position of capacity utilization in respect of eight companies for the last 3 years is given in the Table below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	BEML Ltd.	EM equip. Railway products Tatra trucks	1500 nos. 400 nos. 2000 nos.	79 149 23	91 169 39	69 121 18
2.	Central Inland Water Corporation Ltd.	Transporta-tion of Cargo	73638 MT	98	97	99
3.	Cochin Shipyard Ltd.	Ship Building	1.50 lakh DWT	82	117	121

4.	Garden Reach Shipbuilders and Engineers Ltd.	Shipbuilding (fabrication)	3230 MT	166	121	64
		General engg. (fabrication)	2500 MT	125	133	146
		Pump	720 nos.	2	37	37
		Diesel Engine	36 nos.	31	28	22
5.	Goa Shipyard Ltd.	Shipbuilding	5.85 SSU	100.77	84.79	88.00
6.	Hindustan Shipyard Ltd.	Shipbuilding	75250 DWT	85	98	62
7.	Mazagon Dock Ltd.	Ships & Submarine	0.97 EFU	96.42	82.10	93.43
8.	Scooters India Ltd.	3-Wheelers	16500 nos.	61.25	69.77	91.89

(SSU – Standard Ship Unit; DWT – Dead Weight Tonnage; EFU – Effective Frigate Unit)

- BEML Limited produced 1190 Earth Moving equipment, 594 railway products and 461 BEML Tatra trucks during 2008-09 as compared to 1367 Earth Moving equipments, 676 railway products and 788 BEML Tatra trucks in the previous year.
- Cochin Shipyard Ltd. built 122097 DWT of ships during the year 2008-09 as compared to 175536 DWT in the previous year. However, the output of the work done in the Indigenous Aircraft Carrier project is not measurable in DWT and therefore there is reduction in the capacity utilization for the year 2008-09.
- Garden Reach Shipbuilding and Engineers Limited built 5351 tonnes of ships during 2008-09 as against 3921 tonnes in the previous year.
- The Goa Shipyard Limited produced 5.89 standard ship units in 2008-09 as compared to 4.96 Standard ship units in the previous year.
- The Scooters India Ltd. produced 10107 three-wheeler scooters during 2008-09 as against 11512 in the previous year.

4.1.11 Consumer Goods

The information relating to capacity utilization in respect of seven enterprises for the last 3 years is given in the Table below :

Sl. No.	CPSE	Product	Installed Capacity (2008-09)	Capacity Utilisation (%)		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Artificial Limbs Manufacturing Corporation of India	Mech. Hand	6300 nos.	95.76	68.33	79.32
		Axilla Crutch	62400 nos.	97.04	97.69	86.20
		Wheel Chair	30000 nos.	88.18	83.24	95.68
		Tricycle	78000 nos.	88.10	78.86	83.05
		Hearing Aid	25200 nos.	91.25	79.37	90.93
2.	Cement Corpn. of India	Cement	13.96 lakh M.T.	68.50	65.13	73.26
3.	HLL Lifecare Ltd. (formerly, Hindustan Latex Ltd.)	Condoms	1316 M.Pcs	97	80	105
		Blood Bags	5.00 M.Pcs	137	121	110
		Copper T	5.50 M.Pcs	69	51	51
4.	Hindustan Newsprint Ltd.	Newsprint	100000 MT	108	116	113
5.	Hindustan Paper Corpn. Ltd.	Newsprint	2 lakh MT	87.51	105.87	104.16
		Chlorine Gas (Liquified)	18150 MT	74.57	116.89	110.58

		Caustic Soda	36300 MT	52.02	66.28	62.83
		Calcium Hypochlorite	14310 MT	39.77	50.12	55.60
		Hydrochloric Acid	6600 MT	35.47	44.73	43.98
		Chlorine Dioxide	1090 MT	72.39	93.67	93.94
6.	Hindustan Photofilms Mfg. Co. Ltd.	Cine Products	5.060 M. Sq.M	0.20	0.18	0.93
		X-Ray Films	12.330 M. Sq.M	6.51	3.01	3.43
		Graphic Arts	2.250 M. Sq.M	6.00	5.56	6.53
7.	NEPA Ltd.	Newsprint	88,000 TPA	50.81	58.44	47.85

(M.Pcs – Million Pieces; MT – Metric Tonne; TPA – Tonne Per Annum)

- Artificial Limbs Manufacturing Corporation of India produced 6033 nos. Mechanical Hands, 60553 nos. Axilla Crutch, 26455 nos. Wheel Chairs, 68718 nos. Tricycles and 22995 nos. Hearing Aids. The corresponding figures for the previous year were 4305, 60957, 24971, 61509 and 20000 respectively.
- The Cement Corporation of India Ltd. produced 9.56 lakh MT cement during the year 2008-09 as compared to a production of 9.09 lakh MT during the previous year.
- HLL Lifecare Ltd. (formerly Hindustan Latex Ltd.) produced 1273 million pieces of condoms during the year 2008-09 as compared to 1048 million pieces in the previous year.
- The production of writing & printing paper by Hindustan Paper Corporation Ltd. during the year 2008-09 was 175020 MT as compared to 211746 MT during the previous year.
- The Hindustan Newsprint Ltd. produced 108005 MT of newsprint during 2008-09 as against 1161111 MT during the previous year.
- In Hindustan Photofilms Manufacturing Co. Ltd., production during the year 2008-09 was 0.813 M. Sq. M as against 0.38 M. Sq. M during the previous year.
- The NEPA Ltd. produced 44715 MT of newsprint during 2008-09 as against 51425 MT during the previous year.

4.1.12 Crude Oil

Information relating to production in respect of one CPSE for the last 3 years is given in the Table below :

Sl. No.	Name of Enterprises	Product	Unit	Production		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Oil and Natural Gas Corp. Ltd.	Crude Oil	MMT	27.13	27.93	27.94
		Natural Gas	BCM	25.44	25.12	24.88

It may be seen from the above table that while the production of natural gas is increasing, the production of crude oil is declining during the last 3 years.

4.1.13 Textiles

16.1 The information relating to capacity utilization in respect of one enterprise is given in the Table below :

Sl. No.	Name of Enterprises	Product	Unit	Production		
				2008-09	2007-08	2006-07
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	National Textile Corporation Ltd.	Yarn	1155770 Spindles	67.49	73.10	80.24
		Cloth	1374 Looms	73.45	71.94	62.14

During the year 2008-09, National Textiles Corporation Ltd. has produced 281.45 lakh kilograms of yarn and 140.19 lakh meters of cloth as compared to 370.45 lakh kilograms of yarn and 138.51 lakh meters of cloth during the previous year.

4.2 Macro Picture of Capacity Utilisation

The consolidated position of capacity utilization for the year under review along with that for the previous two years is presented in the Table below :

Description	2008-09	2007-08	2006-07
Units which have recorded 75% or more capacity utilization	43(58)	48(62)	45(58)
Units which have recorded 50% or more but less than 75%	15(20)	16(21)	16(21)
Units which have recorded less than 50% capacity utilization	16(22)	13(17)	16(21)
Total	74(100)	77(100)	77(100)

(Figures in brackets show percentages)

It may be observed from the above table that 43 out of 74 units have recorded capacity utilization of 75% and more in 2008-09 as compared to 48 out of 77 units in 2007-08.

4.3 Steps taken for Performance Improvement

Some of the measures taken by the Government and the management of the public enterprises to improve the performance of public enterprises are as under :

- Strengthening of MOU system
- Periodic performance review by the administrative Ministries and Inter Ministerial Committee.
- Delegation of enhanced powers to Board of Directors of Navratna, Miniratna PSEs and other profit making PSEs.
- Professionalisation of Board of Directors and induction of eminent persons as Independent Directors.
- Setting up of Board for Reconstruction of Public Sector Enterprises (BRPSE) to consider

inter alia revival/restructuring of sick and loss making CPSEs

- Training and human resource development.
- Diversification of product-mix.
- Technology upgradation, research and development.
- Better house keeping and improved maintenance management practices
- Greater emphasis on energy conservation.
- Export promotion.
- Improved inventory control.

4.4 Management of Inventories In Public Enterprises

4.4.1 Overall Analysis

Materials management plays a significant role in improving the operational efficiency and profitability of an enterprise. It helps in achieving higher return on investment by minimizing locked up working capital and also in improving the cash flow and liquidity position. Materials management, therefore, requires to be given due importance for performance improvement. An attempt has been made in the paragraph below to present an overview, cognate group-wise and company-wise inventory position.

Inventory management in Central Public Sector Enterprises (CPSEs) has improved over the years. The inventory level, that was 72 days cost of production/turnover as on 31.3.1997 has declined to 48 days cost of production/turnover as on 31.3.2009. The overall position of inventory management during the last 13 years is shown in the Table 4.4.1 below :

Table 4.4.1

Year ending	Value of Inventory (Rs. in crore)	Cost of Production/ Turnover (Rs. in crore)	Inventory (No. of days) Cost of Production/ Turnover
31.3.1997	40815	206658	72
31.3.1998	41661	218940	69
31.3.1999	44404	278720	58
31.3.2000	52414	354446	54

31.3.2001	50717	425100	44
31.3.2002	52175	431362	44
31.3.2003	58282	466444	46
31.3.2004	59705	513334	42
31.3.2005	73642	626427	43
31.3.2006	90885	714841	46
31.3.2007	101527	836922	44
31.3.2008	128688	958346	49
31.3.2009	127575	964735	48

The above figures do not include inventory (storage) of Food Corporation of India, Cotton Corporation of India Ltd. and Jute Corporation of India

Ltd. as these corporations in the business of making large scale purchases and maintaining stocks. Besides, these CPSEs operating in Industrial Development, Technical Consultancy Services, Tourist Services, Financial Services and Section 25 Companies have also been excluded from the purview in this chapter.

4.4.2 Cognate Groupwise Analysis

CPSEs have been grouped into various cognate groups depending upon the nature of their activities. The analysis of inventory management in the paragraphs below is based on these groupings. Inventory position in each of the cognate groups for the last two years is indicated in Table 4.4.2 below:

Table 4.4.2
Cognate Groupwise Inventory

Cognate Group	As on 31.3.2009		As on 31.3.2008	
	Value (Rs. in crore)	Inventories (No. of days) / Cost of Production / Turnover	Value (Rs. in crore)	Inventories (No. of days) / Cost of Production / Turnover
(a) Agriculture Sector				
1. Agro-based Industries	136.65	101	104.00	105
Total	136.65	101	104.00	105
(b) Electricity Sector				
1. Electricity Generation	3819.23	27	3900.80	30
2. Electricity Transmission	297.57	16	248.22	20
Total	4116.80	25	4149.02	29
(c) Manufacturing Sector				
1. Chemicals & Pharmaceuticals	254.51	44	208.78	45
2. Consumer Goods	1543.22	117	1334.12	112
3. Fertilizers	1661.07	33	1807.33	46
4. Heavy Engineering	8088.41	118	5974.82	119
5. Medium & Light Engineering	4129.05	114	2757.87	93
6. Petroleum (Refinery & Mktg.)	46707.41	24	63113.12	39
7. Steel	13715.94	103	8863.67	83
8. Textiles	114.53	31	146.54	27
9. Transportation Equipment	24058.30	437	17941.07	430
Total	100272.44	43	102147.32	53
(d) Mining Sector				
1. Coal & Lignite	4214.73	38	3827.32	44
2. Crude Oil	4726.16	32	4094.21	30
3. Other Minerals & Metals	2288.11	86	1742.77	76
Total	11229.00	39	9664.30	39

(e) Services Sector				
1. Contract & Construction Services	1120.03	42	4503.18	205
2. Telecommunications Services	47764.35	63	3381.56	40
3. Trading & Marketing Services	3373.82	15	2350.64	15
4. Transportation Services	1312.43	17	1274.94	17
Total	10570.63	26	11510.32	34

The level of inventory in terms of number of days cost of production/turnover in Agriculture Sector, has come down from 105 days as on 31.3.2008 to 101 days as on 31.3.2009. In Electricity Sector the level of inventory that was 29 days cost of production/turnover as on 31.3.2008 has come up to 25 days cost of production/turnover as on 31.3.2009. In the Manufacturing Sector, there is a decrease in the level of inventory from 53 days as on 31.3.2008 to 43 days cost of production/turnover as on 31.3.2009. In the case of Mining Sector the level of inventory in terms of number of days cost of production/turnover has remained unchanged i.e. 39 days cost of production/turnover as on 1.1.2008 as well as on 1.1.2009. However, in the case of Services Sector, the level of inventory, that was 34 days cost of production/turnover as on 31.3.2008 has come down to 26 days cost of production/turnover as on 31.3.2009.

There has been reduction in the level of inventory in terms of number of days cost of production/turnover in sectors viz. Electricity Generation, Electricity Transmission, Chemicals & Pharmaceuticals, Heavy Engineering, Petroleum (Refining & Marketing), Coal & Lignite and Contract

and Construction Services Sectors. The level of inventory has, however, gone up in sectors like Consumer Goods, Medium & Light Engineering, Steel, Textiles, Transport Equipments, Crude Oil, Other Minerals & Metals and Telecommunications Services Sectors. It remained unchanged in sectors like Trading & Marketing Services and Transport Services. Overall, the level of inventory which had gone up during 2007-08 to 49 days cost of production/turnover has come down to 48 days cost of production/turnover during 2008-09.

4.4.3 Heavy Engineering

The value of inventory held by the eight CPSEs belonging to this group (except the two holding companies viz. BBUNL and BYNL) amounted was Rs.8088.41 crore representing 118 days cost of production as on 31.3.2009 as against a total inventory valued at Rs.5974.82 crore representing 119 days cost of production as on 31.3.2008. The value of inventory held by individual enterprises together with the level of inventory in terms of number of days cost of production for the last two years is given in Table 4.4.3 below :

Table 4.4.3

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Bharat Heavy Electricals Ltd.	7837.02	5736.40	119	122
2.	Bharat Heavy Plate & Vessels Ltd.	53.48	48.48	88	86
3.	Bharat Wagon & Engg. Co. Ltd.	6.55	4.71	90	83
4.	Braithwaite & Co. Ltd.	19.13	20.46	113	151
5.	Burn Standard Company Ltd.	43.60	33.45	66	39
6.	Heavy Engineering Corpn. Ltd.	123.06	124.65	110	116
7.	Triveni Structural Ltd.	5.00	6.03	36	38
8.	Tungabhadra Steel Products Ltd.	0.57	0.64	8	8
	Total	8088.41	5974.82	118	119

Out of eight CPSEs, four could reduce the level of inventory during 2008-09 as compared to the previous year while there has been increase in the level of inventory in the case of three companies. It remained unchanged in the case of Tungabhadra Steel Products Ltd.

4.4.4 Medium & Light Engineering

The value of inventory held by 22 CPSEs in this group was Rs.4129.05 as on 31.3.2009 crore representing 114 days cost of production as compared to Rs.2757.87 crore representing 93 days cost of production held by them as on 31.3.2008. The company-wise inventory position for the last two years is shown in Table 4.4.4 below :

Table 4.4.4

Sl. No.	Name of the Company	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Andrew Yule & Co. Ltd.	29.32	27.33	45	44
2.	Antrix Corpn. Ltd.	0.00	0.00	0	0
3.	Balmer Lawrie & Co. Ltd.	78.85	86.36	19	23
4.	Bharat Dynamics Ltd.	623.10	434.24	362	259
5.	Bharat Electronics Ltd.	2417.91	1351.57	206	156
6.	BEL Optronics Ltd,	10.56	5.16	103	50
7.	Bharat Pumps & Compressors Ltd.	65.11	35.30	123	90
8.	Biecco Lawrie Ltd.	10.70	11.13	79	85
9.	Central Electronics Ltd.	36.84	25.96	91	64
10.	Electronics Corpn. of India Ltd.	126.81	68.84	45	32
11.	Hindustan Cables Ltd.	28.05	31.92	23	27
12.	HMT Bearings Ltd.	7.52	7.50	154	120
13.	HMT Chinar Watches Ltd.	7.45	7.24	37	52
14.	HMT Ltd.	40.38	52.40	64	77
15.	HMT Machine Tools Ltd.	117.40	104.35	180	130
16.	HMT Watches Ltd.	39.37	44.71	82	99
17.	I.T.I Ltd.	403.35	370.61	58	72
18.	IDPL (Tamilnadu) Ltd.	0.87	0.87	58	58
19.	Instrumentation Ltd.	63.85	66.46	82	87
20.	Rajasthan Electronics & Instruments Ltd.	11.68	10.89	49	52
21.	Richardson & Cruddas (1972) Ltd.	4.63	9.38	16	34
22.	Vignyan Industries Ltd.	5.30	5.65	65	79
Total		4129.05	2757.87	114	93

Of the 22 CPSEs, while 11 could reduce the level of inventory during 2008-09 as compared to the previous year there has been increase in the level of

inventory in the case of 9 companies. It is remained unchanged in the case of IDPL (Tamilnadu) Ltd. Antrix Corporation Ltd. did not hold any inventory.

4.4.5 Other Minerals & Metals

There were 10 companies operating in this group. The value of inventory held by these companies during the year 2008-09 was Rs.2288.11

crore representing 86 days cost of production. At the end of 2007-08, the value of inventory stood at Rs.1742.77 crore representing 76 days cost of production. Company-wise details are presented in the Table 4.4.5 below :

Table 4.4.5

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Bharat Refractories Ltd.	42.24	32.87	65	62
2.	FCI Aravali Gypsum & Minerals (I) Ltd.	0.61	1.02	6	13
3.	Hindustan Copper Ltd.	259.96	386.12	78	98
4.	Indian Rare Earths Ltd.	60.62	55.00	72	75
5.	J&K Mineral Dev. Corpn. Ltd.	0.01	0.01	13	19
6.	Kudremukh Iron Ore Co. Ltd.	647.04	346.55	168	89
7.	Manganese Ore (India) Ltd.	58.36	22.69	49	30
8.	National Aluminum Co. Ltd.	841.90	686.65	81	81
9.	National Mineral Dev. Corpn. Ltd.	302.46	166.14	57	43
10.	Uranium Corporation of India Ltd.	75.31	45.72	72	59
Total		2288.11	1742.77	86	76

Of the 10 public enterprises, while four could reduce the level of inventory during 2008-09 as compared to the previous year while there has been increase in the level of inventory in case of five companies. It remained unchanged in the case of National Aluminium Co. Ltd.

4.4.6 Fertilizers

There were altogether 7 companies engaged in the production of fertilizers. The value of inventory held by them as on 31.3.2009 stood at Rs. 1661.08 crore representing 33 days cost of production as compared to an inventory value of Rs.1807.33 crore representing 46 days cost of production at the end of previous year. Company-wise analysis of inventory is given in Table 4.4.6 below :

Table 4.4.6

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Brahmaputra Valley Fertilizer Corpn.	37.30	40.02	36	40
2.	Fertilizers & Chem. (Travancore) Ltd.	412.61	318.45	63	126
3.	Fertilizer Corpn. of India Ltd.	42.29	42.32	20	10
4.	Hindustan Fertilizer Corpn. Ltd.	2.15	18.86	1	6
5.	Madras Fertilizers Ltd.	125.36	141.13	37	40
6.	National Fertilizers Ltd.	348.68	381.03	25	34
8.	Rashtriya Chemicals & Fertilizers Ltd.	892.69	865.52	33	62
Total		1661.08	1807.33	33	46

While the level of inventory has decreased in the case of six enterprises during 2008-09 it increased in the case of one enterprise.

4.4.7 Chemicals & Pharmaceuticals

The value of inventory held by 14 enterprises belonging to this group as on 31.3.2009 stood at Rs.

254.51 crore representing 44 days cost of production as compared to Rs. 208.78 crore representing 45 days cost of production held by them as on 31.3.2008. The company wise inventory position for last two years is given in the Table 4.4.6 below :

Table 4.4.7

Sl. No.	Name of the Company	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Bengal Chem. & Pharmaceuticals Ltd.	18.47	18.98	75	110
2.	Bharat Immunologicals & Biologicals Ltd.	0.22	0.22	4	4
3.	Hindustan Antibiotics Ltd.	41.05	29.57	82	82
4.	Hindustan Insecticides Ltd.	64.59	50.23	110	96
5.	Hindustan Fluorocarbons Ltd.	10.85	2.27	174	55
6.	Hindustan Organic Chemicals Ltd.	66.96	58.73	38	38
7.	Hindustan Salts Ltd.	0.60	0.92	7	23
8.	Indian Drugs & Pharmaceuticals Ltd.	6.56	6.56	5	7
9.	Indian Medicines & Pharmaceuticals Corp. Ltd.	4.88	4.66	134	177
10.	Karnataka Antibiotics & Pharma. Ltd.	26.88	22.86	46	46
11.	Orissa Drugs & Chemicals Ltd.	0.38	0.38	31	31
12.	Projects & Development India Ltd.	2.88	3.04	20	27
13.	Rajasthan Drugs & Pharm. Ltd.	7.74	8.53	37	36
14.	Sambhar Salts Ltd.	2.45	1.83	58	44
Total		254.51	208.78	44	45

Of the 14 CPSEs, while five CPSEs could reduce the level of inventory during 2008-09 while there has been increase in the level of inventory in case of 4 enterprises. It remained unchanged in case of 5 enterprises.

4.4.8 Steel

The value of inventory held by six CPSEs stood at companies was Rs.13715.94 crore at the end

of 2008-09 as compared to Rs.8863.67 crore worth of inventory at the end of 2007-08. The level of inventory has gone up from 83 days cost of production at the end of the previous year to 103 days cost of production at the end of 2008-09. Company-wise position is indicated in the Table 4.4.8 below :

Table 4.4.8

S I. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Ferro Scrap Nigam Ltd.	10.61	10.38	29	30
2.	Maharashtra Elektros melt Ltd.	60.52	42.19	75	61

3.	Mishra Dhatu Nigam Ltd.	298.42	188.44	353	276
4.	Rashtriya Ispat Nigam Ltd.	3215.28	1761.15	130	88
5.	Sponge Iron India Ltd.	9.66	4.28	65	32
6.	Steel Authority of India Ltd.	10121.45	6857.23	95	81
Total		13715.94	8863.67	103	83

The value of inventory has decreased in one enterprise during 2008-09 as compared to the previous year and increased in 5 enterprises.

4.4.9 Transportation Equipments

Altogether, 10 CPSEs are engaged in the production of transportation equipments. The value

of inventory held by these companies stood at Rs. 24058.30 crore during 2008-09 as against Rs.17941.07 crore during 2007-08. The level of inventory which was 430 days cost of production at the end of previous year, went up to 437 days cost of production at the end of 2008-09. Company-wise details are given in the Table 4.4.9 below :

Table 4.4.9

Sl. No	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Bharat Earth Movers Ltd.	1620.57	929.27	205	141
2.	Central Inland Water Transport Corp.	1.40	1.48	27	30
3.	Cochin Shipyard Ltd.	428.13	205.63	137	106
4.	Garden Reach Shipbuilders & Engrs. Ltd.	838.58	831.32	452	568
5.	Goa Shipyard Ltd.	302.48	112.36	239	140
6.	Hindustan Aeronautics Ltd.	10431.18	8614.64	326	377
7.	Hindustan Shipyard Ltd.	372.15	253.55	246	195
8.	Hooghly Dock & Port Engineers Ltd.	79.31	79.31	531	531
9.	Mazagon Dock Ltd.	9964.78	6876.81	1458	1122
10.	Scooters India Ltd.	19.72	36.39	50	86
Total		24058.30	17941.07	437	430

Of the 10 enterprises, four CPSE could reduce the level of inventory during 2008-09. It however, increased in the case of five enterprises during the year. It remained unchanged in the case of Hooghly Docks Port Engineers Ltd.

4.4.10 Consumer Goods

The 12 CPSEs belonging to the consumer goods group held an inventory valued at Rs.1543.22 crore representing 117 days cost of production during 2008-09 against an inventory valued at Rs.1334.12 crore held by them during the previous year representing 112 days cost of production. Company-wise position is given in Table 4.4.7 below :

Table 4.4.10

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1	Artificial Lims Mfg. Co. of India.	18.97	17.04	127	126

2.	Cement Corpn. of India Ltd.	113.41	102.13	132	137
3.	HLL Lifecare Ltd .	61.30	43.38	59	50
4.	Hindustan Newsprint Ltd.	144.15	70.24	161	90
5.	Hindustan Paper Corpn. Ltd.	144.21	135.32	75	73
6.	Hindustan Photo Films Manfg. Co. Ltd.	14.11	16.07	6	7
7.	Hindustan Vegetable Oils Corpn. Ltd.	0.00	1.92	0	29
8.	Hooghly Printing Co. Ltd.	0.28	0.09	16	8
9.	Nagaland Pulp & Paper Mills Ltd.	0.04	0.04	2	2
10.	NEPA Ltd.	25.65	9.67	62	22
11.	Security Printing & Minting Corpn. of India	1018.68	935.28	195	209
12.	Tyre Corpn. of India Ltd.	2.42	2.94	24	11
Total		1543.22	1334.12	117	112

The level of inventory has decreased in the case of three enterprises during 2008-09 and increased in the case of seven enterprises. In the case of Nagaland Pulp & Paper Mills Ltd, the level of inventory remained unchanged. Hindustan Vegetable Oils Corpn. Ltd. did not hold any inventory during 2008-09.

4.4.11 Petroleum (Refinery & Marketing)

There are seven companies operating in petroleum (Refinery & Marketing) sector as on

31.3.2009. These companies held inventory valued at Rs. 46707.41 crore as on 31.3.2009 as compared to Rs.63113.12 at the end of previous year. The level of inventory was 39 days cost of turnover as on 31.3.2008 as against 24 days cost of turnover as on 31.3.2009. Company-wise details of inventory are presented in the Table 4.4.11 below :

Table 4.4.11

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Bharat Petroleum Copn. Ltd.	6823.92	10603.84	17	32
2.	Chennai Petroleum Corpn. Ltd.	2470.28	4432.03	25	49
3.	Gas Authority of India Ltd.	601.41	569.81	9	11
4.	Hindustan Petroleum Corpn. Ltd.	8793.24	12020.28	28	42
5.	Indian Oil Corpn. Ltd.	25149.60	30941.48	28	42
6.	Mangalore Refinery & Petrochem. Ltd.	1890.43	3624.30	16	35
7.	Numaligarh Refinery Ltd.	978.53	921.38	40	38
Total		46707.41	63113.12	24	39

The value of inventory decreased in the case of six enterprises during 2008-09 and increased in one enterprise.

4.4.12 Crude Oil

There are three major CPSEs operating in the Crude Oil sector as on 31.3.2009. These companies

had inventory valued at Rs.4726.16 crore as on 31.3.2009 as compared to Rs.4094.21 crore at the end of previous year. The level of inventory was 30 days cost of production as on 31.3.2008 as against 32 days cost of production as on 31.3.2009. Company-wise details of inventory are presented in the Table 4.4.12 below:

Table 4.4.12

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	ONGC Videsh Ltd.	164.49	162.68	15	11
2.	Oil & Natural Gas Corpn. Ltd.	4060.67	3480.64	33	32
3.	Oil India Ltd.	501.00	450.89	38	40
Total		4726.16	4094.21	32	30

The value of inventory has increased in the case of two CPSEs enterprises during 2008-09 and decreased in case of one enterprise.

4.4.13 Agro-Based Industries

The value of inventory held by four CPSEs belonging to this group stood at Rs.136.65 crore at the

end of 2008-09 as compared to Rs.104.00 crore at the end of 2007-08. The level of inventory has decreased to 101 days cost of turnover at the end of 2008-09 as compared to 105 days cost of turnover at the end of previous year. Details of inventory held by these enterprises are given in the Table 4.4.13 below :

Table 4.4.13

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Andaman & Nicobar Ist. Forest & Plantation	1.72	0.78	130	84
2.	National Seeds Corpn. Ltd.	29.95	24.09	38	40
3.	North Eastern Regn. Agri. Mktg. Corpn. Ltd.	0.59	1.14	6	14
4.	State Farms Corpn. of India Ltd.	104.39	77.99	232	264
Total		136.65	104.00	101	105

Of the four CPSEs enterprises under this group, three CPSEs could reduce the level of inventory during 2008-09. The level of inventory increased in the case of one enterprise during the year.

4.4.14 Coal & Lignite

The value of inventory held by nine CPSEs belonging to this group as on 31.3.2009 stood at Rs.

4214.73 crore as compared to Rs.3827.32 crore at the end of previous year. The level of inventory was 38 days cost of production as on 31.3.2009 as compared to 44 days cost of production at the end of previous year. Company-wise details are given in Table 4.4.14 below :

Table 4.4.14

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1	Bharat Coking Coal Ltd.	707.36	573.53	55	55
2	Central Coalfields Ltd.	968.06	991.18	73	95
3	Coal India Ltd.	19.52	10.44	8	5
4	Eastern Coalfields Ltd.	323.83	331.42	19	28

5	Mahanadi Coalfields Ltd.	518.19	354.90	47	48
6	Neyveli Lignite Corpn. Ltd.	535.85	448.05	65	75
7	Northern Coalfields Ltd.	359.35	297.74	31	32
8	South Eastern Coalfields Ltd.	494.21	518.63	27	32
9	Western Coalfields Ltd.	288.46	301.43	18	24
Total		4214.73	3827.32	38	44

The value of inventory has decreased in the case of seven CPSEs enterprises during 2008-09 as compared to the previous year and increased in one enterprise. It remain unchanged in the case of Bharat Coking Coal Ltd

4.4.15 Textiles

There were four CPSEs in the Textiles Sector as on 31.3.2009. The value of inventory held by

companies belonging to this group stood at Rs. 114.53 crore at the end of 2008-09 as compared to an inventory of Rs. 146.54 crore at the end of previous year. The level of inventory stood at 31 days cost of production during the year 2008-09 and 27 days at the end of previous year. The company wise details are given in the Table 4.4.15 below :

Table 4.4.15

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Production (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Birds, Jute & Exports Ltd.	0.00	0.01	0	1
2.	British India Corpn. Ltd.	17.28	17.28	149	149
3.	National Jute Manufacturers Corpn. Ltd.	0.00	0.00	0	0
4.	National Textile Corpn. Ltd.	97.25	129.25	49	33
Total		114.53	146.54	31	27

Of the four CPSEs, the level of inventory increased in the case of National Textile Corporation Ltd during the year. Birds Jute & Exports Ltd and National Jute Manufacturers Corporation Ltd. did not hold any inventory during 2008-09. It remained unchanged in the case of British India Corporation Ltd.

4.4.16 Electricity Generation

The value of inventory held by eight electricity generating CPSEs as on 31.3.2009 stood at Rs. 3819.23 crore as compared to Rs. 3900.80 crore at the end of previous year. The level of inventory was 27 days cost of turnover as on 31.3.2009 as against 30 days cost of turnover as on 31.3.2008. The company wise break-up of inventory is given in the Table 4.4.16 below :

Table 4.4.16

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	National Hydroelectric Power Corpn. Ltd.	56.71	739.63	8	120
2.	National Thermal Power Corpn.	3243.42	2675.69	28	26
3.	North Eastern Electric Power Corpn. Ltd.	65.52	68.19	28	29
4.	Nuclear Power Corpn. of India	378.14	361.08	46	40

5.	Satluj Jal Vidyut Nigam Ltd.	55.85	53.63	11	13
6.	Narmada Hydro Electric Development Corpn.	4.42	2.58	2	1
7.	REC Power Distribution Co. Ltd.	0.00	0.00	0	0
8.	Tehri Hydro Development Corpn. Ltd.	15.17	0.00	5	0
Total		3819.23	3900.80	27	30

Of the eight CPSEs under this group, three CPSEs could reduce the level of inventory during 2008-09. In case of three enterprises there has been increase in the level of inventory. REC Power Distribution Co. Ltd. did not hold any inventory. Tehri Hydro Development Corpn. Ltd. held inventory for the first time.

4.4.17 Transportation Services

There are 11 public sector enterprises operating in the transportation services sector. Of the 11 companies, Air India Air Transport Services Ltd. did not hold any inventory. The value of inventory held by the remaining 10 companies stood at Rs.1312.43 crore as on 31.3.2009 as compared to an inventory valued at Rs.1274.94 crore at the end of previous year. Company-wise details are given in the Table 4.4.17 below :

Table 4.4.17

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Air India Air Transport Services Ltd.	0.00	0.00	0	0
2.	Air India Charters Ltd.	39.74	28.35	11	12
3.	Airline Allied Services Ltd.	12.49	7.09	19	10
4.	Airports Authority of India	64.81	59.83	6	6
5.	Container Corpn. of India Ltd.	5.08	4.81	1	1
6.	Dredging Corpn. of India Ltd.	81.79	29.56	44	15
7.	Ennore Port Ltd.	4.79	4.79	13	14
8.	Fresh & Healthy Enterprises Ltd.	13.14	11.56	137	260
9.	National Aviation Co. of India Ltd.	964.21	1001.61	27	27
10.	Pawan Hans Helicopters Ltd.	63.04	37.27	76	65
11.	Shipping Corpn. of India Ltd.	63.34	90.07	6	9
Total		1312.43	1274.94	17	17

Out of 11 CPSEs in the Transportation Services Sector, four CPSEs could reduce the level of inventory during 2008-09. There has been increase in the level of inventory in the case of three CPSEs. The level of inventory remained unchanged. No inventory was held by Air India Transport Services Ltd.

4.4.18 Trading & Marketing Services

There were 16 companies in the Trading & Marketing Services group excluding Food Corpn. of India, Cotton Corpn. of India and Jute Corpn. of India. These 16 companies held inventory valued at Rs.3373.82 crore representing 15 days cost of turnover at the end of 2008-09 as compared to an inventory of Rs. 2350.64 crore representing 15 days cost turnover during 2007-08. Company-wise details are given in the Table 4.4.18 below :

Table 4.4.18

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
(1)	(2)	(3)	(4)	(5)	(6)
1.	Central Cottage Industries Corpn.	5.39	5.87	29	25
2.	Central Railside Warehousing Co. Ltd.	0.00	0.00	0	0
3.	Central Warehousing Corpn.	46.75	5.02	22	3
4.	Handicrafts & Handlooms Exports Corpn.	3.17	36.87	1	19
5.	H.M.T. (International) Ltd.	0.01	0.33	0	5
6.	India Trade Promotion Organization	0.00	0.06	0	0
7.	Karnataka Trade Promotion Organisation	0.00	0.00	0	0
8.	MMTC Ltd.	578.53	553.21	6	8
9.	MSTC Ltd.	1.65	13.99	0	1
10.	National Handloom Development Corpn. Ltd.	1.69	0.77	1	0
11.	North Eastern Handicrafts & Handlooms Corpn. Ltd.	1.39	1.94	42	77
12.	NTPC Vidyut Vyapar Nigam Ltd.	0.17	0.16	0	0
13.	PEC Ltd.	1174.94	1049.66	42	68
14.	STCL Ltd.	96.39	35.14	16	5
15.	State Trading Corpn. Ltd.	1463.74	647.62	27	15
16.	Tamilnadu Trade Promotion Organization	0.00	0.00	0	0
Total		3373.82	2350.64	15	15

Of the 16 CPSEs in this group, six could reduce the level of inventory during 2008-09 while in 5 enterprises. There has been however, increase in the level of inventory. No inventory was held by Central Railside Warehousing Co. Ltd., Tamilnadu Trade Promotion Organization, Karnataka Trade Promotion Organization, India Trade Promotion Organisation and NTPC Vidyut Nigam Ltd.

4.4.19 Contract & Construction Services

There were 11 CPSEs in the Contract &

Construction Services group. Of the 11 companies, Mumbai Railway Vikas Corpn. Ltd. did not hold any inventory. The value of inventory held by nine CPSEs in this group Rs. 1120.03 crore as on 31.3.2009 as compared to Rs. 4503.18 crore held by them during 2007-08. The level of inventory has decreased from 205 days cost of turnover to 42 days cost of turnover during 2008-09. Company-wise details are given in the Table 4.4.19 below :

Table 4.4.19

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
(1)	(2)	(3)	(4)	(5)	(6)
1.	BBJ Construction Co. Ltd.	19.53	18.95	119	81
2.	Bridge & Roof Co. (India) Ltd.	425.57	382.61	166	197
3.	Hindustan Prefab Ltd.	0.41	0.33	1	3
4.	Hindustan Steelworks Constn. Ltd.	23.94	3.00	12	2

5.	IRCON (International) Ltd.	430.52	159.02	59	29
6.	Konkan Railway Corpn. Ltd.	16.05	10.59	10	8
7.	Mineral Exploration Corpn. Ltd.	5.16	5.42	20	22
8.	Mumbai Railway Vikas Corpn. Ltd.	0.00	0.00	0	0
9.	National Bldg. Constn. Corpn. Ltd.	196.02	268.98	35	50
10.	National Projects Constn. Corpn. Ltd.	3.83	5.28	2	3
11.	Rail Vikas Nigam Ltd.	0.00	3649.00	0	936
Total		1120.03	4503.18	42	205

Of the 11 enterprises, five CPSEs could reduce level of inventory during 2008-09 as compared to the previous year while in 4 enterprises there has been increase in the level of inventory. No inventory was held by Mumbai Railway Vikas Corporation Ltd. and Rail Vikas Nigam Ltd.

4.4.20 Telecommunications Services

There were four CPSEs operating in this group. Millennium Telecom Ltd. did not hold any inventory

during the current year. Mahanagar Telephone Nigam Ltd., Bharat Sanchar Nigam Ltd. and Railtel Corporation India Ltd. held an inventory valued at Rs. 4764.35 crore as on 31.3.2009 as compared to Rs. 3381.56 crore held by them at the end of the previous year. Level of inventory has gone up from 40 days cost of turnover during 2007-08 to 63 days cost of turnover in 2008-09. The company-wise details are given in the Table 4.2.20 below :

Table 4.4.20

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Bharat Sanchar Nigam Ltd.	4572.58	3220.06	73	45
2.	Mahanagar Telephone Nigam Ltd.	191.27	160.71	16	12
3.	Railtel Corporation India Ltd.	0.50	0.79	0	2
4.	Millennium Telecom Ltd.	0.00	0.00	0	0
Total		4764.35	3381.56	63	40

Of the four CPSEs in the Telecommunications & Information Technology Services group, the level of inventory increased in the case of two CPSEs during 2008-09. No inventory was held by Millennium Telecom Ltd. and Railtel Corporation of India.

4.4.21 Electricity Transmission

The value of inventory held by two electricity transmission companies/CPSEs as on 31.3.2009 stood

at Rs.297.57 crore as compared to Rs. 248.22 crore at the end of previous year. The level of inventory was 20 days cost of turnover as on 31.3.2008 came down to 16 days cost of turnover as on 31.3.2009. Company-wise breakup of inventory is given in the table 4.4.21 below :

Table 4.4.21

Sl. No.	CPSE	Inventory (Rs. in crore)		Inventory/Cost of Turnover (No. of days)	
		2008-09	2007-08	2008-09	2007-08
1.	Power Grid Corporation of India	297.57	248.22	17	20
2.	NTPC Electric Supply Co. Ltd.	0.00	0.00	0	0
Total		297.57	248.22	16	20

Of the two CPSEs, the level of inventory decreased in the case of Power Grid Corporation of India Ltd. during the year, NTPC Electric Supply Co. Ltd. did not hold any inventory during the year.

4.5 Energy Conservation in Public Sector

Rapid increase in energy demand and consumption in all the sectors of the economy consequent to high economic growth has led to overall shortage of both peak and normal energy requirements. In this perspective, all the more, energy conservation has assumed much greater importance. Creating/building additional capacity is not only capital intensive but also time consuming. Additional investment for energy conservation measures, on the other hand, is more cost effective and yields results within a short period.

The main reasons for higher consumption of energy have been identified as obsolete technology, lower capacity utilization, casual monitoring of energy consumption, lower automation, low quality of raw material and poor operating/maintenance practices. The cognate group-wise pattern of energy consumption is given in Annex.

The CPSEs have a major role to play in this area. Energy conservation measures taken by some of the Central Public Sector enterprises during the year 2008-09 are given in the following paragraphs.

4.5.1 Power Generation

(i) NTPC Limited

The company has taken the following New Initiatives during 2008-09 toward Energy Conservation.

a. Installation of On Line Energy Management System at all stations

To continuously measure, monitor, store and trend power consumption of all major drives. Fully installed and operational for all HT drives at Tanda, Dadri-Coal, Kawas, Simhadri and Faridabad. Other stations are in the process of procurement and installation.

b. Energy Efficient Coating on Pump Internals

To recover lost efficiency of old large sized pumps. For experimental purpose, one CW pump of Singrauli STPS was coated with

Energy Efficient Coating. Pre and post efficiency tests were carried out.

c. Consultancy Assignment for Energy Audit of Power Stations

Energy audit of Combined Cycle Power Plant, Puducherry was carried out.

d. Topic Specific Workshop on Energy Saving Potentials

Such workshop is organized every year to explore energy savings potentials in one of the major systems. During Nov '08 a workshop on "Energy Savings Potentials in CW & CT System" was organized at Korba STPS.

(ii) NHPC Limited

With a view to assess and optimize the power stations performance Energy audit of NHPC Power Stations is being conducted. Energy Audit of Baira Siul, Salal, Loktak, Tanakpur, Rangit, Chamera-I, Uri and Chamera-II Power Stations has already been completed.

4.5.2 Power Transmission

(i) Power Grid Corporation of India Limited :-

All efforts are being made by POWERGRID towards conservation of energy in all of its installations right from planning stage. Power evacuation systems are designed in most optimal manner such that losses in the system are minimal.

4.5.3 Chemicals and Pharmaceuticals

(i) Bengal Chemicals & Pharmaceuticals Limited :-

Suitable measures have been taken to conserve electrical energy as well fuel by installing Capacitor Banks, Transparent Illumination Sheet, Battery Operated Mini Trolleys, etc.

(ii) Karnataka Antibiotics & Pharmaceuticals Limited :-

The company has taken following steps towards energy conservation.

1. Reduction of cooling load by solar heat gain, reduction through double glazing of corridor windows in production areas.
2. Heat recoveries from chiller refrigerant for preheating water to the boiler.

3. Upgradation of air compressor in NP areas.

4.5.4 Consumer Goods

HINDUSTAN PAPER CORPORATION Limited :- The company has taken following steps towards energy conservation.

- (i) Inhouse Energy Conservation Task Forces identified schemes in 2008-09 for conservation of power, water and steam.
- (ii) Accredited Energy Managers are working on various schemes both at NPM & CPM.

CPPRI, accredited energy auditor by Bureau of Energy Efficiency.

4.5.5 Fertilizer

Brahmaputra Valley Fertilizer Corpn. Ltd. :- The company has engaged The Energy Research Institute (TERI), New Delhi renowned energy audit firm to carry out energy audit of Namrup III plant. TERI have submitted report where energy conservation measures are given which are being implemented.

National Fertilizers Limited :- In the efforts towards energy conservation for reduction in cost of production, NFL during the year has installed Pre-Concentrators at Vijaipur-I Urea plants to utilize waste heat which has resulted in saving of Energy to the tune of 0.1 Gcal/MT of Urea. Energy Saving Schemes at Vijaipur plants are in progress.

4.5.6 Heavy Engineering

Bharat Heavy Plate & Vessels Ltd. : The company has taken following steps in this regard.

- Major overhaul of all the substations to improve their performance and to avoid electricity losses/break downs.
- Major reconditioning/retrofitting of critical welding/CNC machines to improve the availability of Machinery for production.

Heavy Engineering Corpn. Ltd. :- The following steps have been taken for improving energy efficiency.

- a. Reduction in tap to tap time.
- b. Use of Proper sized and segregated scrap, Oxygen assisted melting and Continuous use

of Furnaces.

- c. Installation of 5T energy efficient furnace.

4.5.7 Medium & Light Engineering

Andrew Yule & Company Ltd. :- Energy conservation devices installed in Tea Gardens.

Bharat Pumps & Compressors Ltd. :- The company has implemented Energy Audit recommendations, resulting in saving of energy consumption with respect to Turnover.

Biecco Lawrie & Co. Ltd. :- Rainwater harvesting and recycling projects have been set up at Switchgear works.

Rajasthan Electronics And Instruments Ltd. :- The company motivates to its employee for proper and effective utilization of electric equipments.

4.5.8 Petroleum (Refinery & Marketing)

Bharat Petroleum Corporation Limited :-

- a. Energy conservation measures taken at Mumbai/Kochi Refinery :- Energy conservation efforts received continuous focus both in terms of improvement in operations/maintenance as well as development of new projects. Continuous monitoring of fuel consumption and hydrocarbon loss is undertaken using sophisticated instruments and data acquisition system. The analysis report and data compiled are communicated to the respective sections and necessary actions are initiated in case of any abnormalities. An elaborate energy accounting system and Management Information System is an important feature of BPCL's Refinery operations.
- b. Mumbai Refinery :- The following energy conservation and loss control measures were adopted during the year, which have resulted in significant fuel savings.
 - Maximisation of crude throughput in modern highly energy efficient Integrated Crude & Vacuum Unit.
 - Anti-foulant chemical injection in all Crude & Vacuum units.
 - Injection of fire side chemical additive in HVU / CRU Heater.

- Regular Cleaning of pre heat exchangers of process units.
- A comprehensive “Steam Generation and Distribution Study” was carried out by M/s Tata Consulting Engineers covering steam trap, steam insulation and leak survey.
- High emissivity ceramic coating was applied to process heater tubes and refractory walls of New crude unit and Vacuum unit furnaces (F 101 & 102) during March 2009 shut down, to improve furnace efficiency.
- Special type insulation for bare hot tubes of NHGU furnace.
- Foam / chemical cleaning of air fin coolers in New Crude unit complex and C3C4 Unit to improve performance.
- “Chemical decontamination” technique was adopted for the first time in the refinery during turn around. This helps in improved heat exchanger cleaning and better decontamination for carrying out plant jobs.
- During turn around, service of combustion technology expert from M/s Hamworthy Combustion Global solutions was obtained, to get suggestions for adopting best practices leading to improved efficiency of the furnaces.
- Replacement of two modules of air pre-heater in CDU1 B2 furnace for improved heat recovery.
- Installation of Step-less control in Make-up-Gad- Compressor (MUG) of Hydro cracker unit to reduce power consumption.
- Processing of hydrogen rich Catalytic Reformer Unit (CRU) off gas in Hydro-cracker unit PSA system and New Hydrogen Unit to reduce overall Naphtha consumption for hydrogen generation.
- A comprehensive survey on “Instrument Air supply System” was carried out to identify and rectify instrument air leaks.
- “Dry ice blast” cleaning of convection section of heaters to improve efficiency.
- Stopping of one Fuel oil turbine at Boiler House– saving in steam consumption.
- Use of energy saving CFL lamps.
- Energy saving device/torroidal core transformers for energy saving in lighting circuits.
- Conversion of motors from delta to star motor windings for power saving.
- Installation of Capacitor banks to maximize power factor.
- Replacement of GT2 rotor and accessories for fuel saving and eliminating hot gas path inspection.
- Replacement of High Efficiency Boiler - 2 Forced Draft (FD) fan with Variable Frequency Drive.
- Reduction of slops by tighter operational control.
- Continuous monitoring & control of all parameters of Furnaces & Boilers.
- Continuous monitoring & control of flare.
- Regular steam insulation & steam leak surveys.
- Replacement of Insulation for various Steam Headers.
- Replacement of leaky steam traps & regular attending to steam leaks.

4.5.9 Kochi Refinery (KR)

The following energy conservation and loss control measures were adopted during the year 2008-09, resulting in significant fuel savings:

- Reduction in power consumption by stopping raw water pump in PIBU.
- Taking the condensate recovery system in Bitumen tank farm back online.
- Conversion of metallic blades to FRP blades for 25 air fin fans .
- Optimization of excess air in UB10 & UB 7 through automatic air fuel ratio based combustion control scheme.

- Replacement of Naphtha stabilizer reboiler (LH1) with a steam reboiler.
- Replacement of mineral wool insulation by perlite.
- Provision of LP steam air heater ahead of cast APH in Crude heater to mitigate cold end corrosion and reduce the down time of air pre heater.
- Removal of overhead column compressor in Crude distillation unit-1 by routing overhead gas directly to heaters after amine wash.
- Swapping of MP steam with LP steam for product strippers in FCCU & CDU1.
- Waste heat recovery through steam generation in Biturox unit.
- Friction reducing internal coating for two cooling water pumps and one crude oil pump.
- Excess oxygen reduction in NH2 heater

4.5.10 MRPL

The company has continued its emphasis on energy conservation through operational optimization, continuous monitoring and implementation of several energy conservation schemes. Major energy conservation measures taken during the year are as under :

- a. Hot well slop oil to LGO stripper modification carried out in Crude Distillation unit
- b. Naphtha Hydrotreater charge heater tube piping & Cleaning of combined feed exchanger carried out which improved the energy performance of the CCR – I unit.
- c. In Visbreaker unit – 2, all steam generators tube bundles were cleaned, to maximize medium stem production.
- d. Advanced process control system implementation completed in crude Distillation Unit 2.
- e. ISOM unit Depentaniser pressure optimized and an operating philosophy of optimizing pentanes in feed was established based on MS quality.

- f. Provided automatic water draining facility for one crude storage tank.

Numaligarh Refinery Ltd. :- The Energy conservation initiatives and measures at NRL primarily include, NG utilization project for replacement of Naphtha as fuel in Gas Turbine Generator and replacement of naphtha both as feed and fuel in Hydrogen Unit and replacement of fuel oil in r.

4.5.11 Steel

Rashtriya Ispat Nigam Ltd. :- The measures have been taken during 2008-09 for conservation of Energy resulted in decrease of Specific Heat consumption decreased by 1. The measures taken in this regard included installation of VFDs for DE system of CDCP 1, 2 &3 and Vibro feeders in SP & B.

4.5.12 Textiles

NTC :- The company is getting energy audit done on regular basis to conserve energy and cost.

4.5.13 Transportation Equipment

BEML LTD. :- The steps taken by the company are as under.

- Introduction of solar water heating system.
- Replacement of inverter welding sets.
- DSL power supply indication lamps and 12 volts 50 watts focus lights for display of equipment,
- Replacement of slim tubes in place of conventional tubes.

Cochin Shipyard Ltd. :- The company has installed bio gas plant in the employees canteen for cooking purposes thereby reducing the LPG consumption. Leakages in the compressed air distribution system and other gas lines are regularly monitored and rectified.

4.5.14 Crude Oil

Oil India :- The various measures adopted by the Company for conservation of energy are as under.

- Use of Aluminium paint in all crude oil storage tanks to minimize evaporation loss.

- Use of Oil Soluble Demulsifier (OSD).
- Use of dual fuel (Natural Gas and Crude Oil as fuel) engine in Crude Oil Dispatch Pumps in PS-1 & PS-2 since natural gas is available.
- Regular & proper maintenance of Crude Oil Transportation Trunk/ Branch Pipelines to minimize pumping power requirement.

The following steps were taken for the reduction of natural gas flare during 2008-09.

- By judicious use of low pressure gas, the gas flare in Moran has been as low as 1 %.
- A total of 1.2 MMSCUM very low pressure gas (about 0.7 kg / cm²) stabilizer gas which is normally being flared in many OCSs is being utilized from Moran OCS as domestic fuel in housing area.
- After commissioning of stabilizer compressor and water seal system at OCS-5, utilized 1.1 MMSCUM low pressure stabilizer gas (0.7 kg/sq.cm) as housing fuel which otherwise would have been flared.
- After commissioning of two nos. gas distribution pipe line to utilize associated gas produced at Barekuri EPS and NKL/NKL QPS, resulted in reduced gas flaring and saving of 2102500 SCUM of natural gas.

For conservation of electrical energy & better illumination, 40 Watt & 60 Watt incandescent bulb at different housing and civic areas have been replaced with 36 Nos. 9W CFL, 464 Nos. 15W CFL, 20 Nos. 11W CFL lamp fitting.

4.5.15 Other minerals & metals

NMDC Ltd. :- The company has set up a 10.5 MW wind energy project at Chitradurga in the State of Karnataka and also undertaken energy audit studies through a consultant.

NALCO :- Preliminary energy audit on consumption pattern of HSD, Lubricants and electrical energy for illumination purposes was carried out through PCRI. Audit findings are being analyzed for implementation.

4.5.16 Contract & Construction services

Bridge & Roof Co.(India) Ltd. :- Various steps for improvement are being undertaken in line with the recommendations of Energy Audit Report.

Mumbai Railway Vikas Corporation Ltd. :- The company has informed that there would be an energy saving of thirty percent on new rakes as compared to the conventional EMU rakes. The specific energy consumption for these rakes is 28 KWH per 1000 GTKMs as against 40 for the conventional rakes. This would result in an annual savings.

4.5.17 Trading & Marketing Services

Container Corporation Of India Ltd. :- CFL bulbs tubes were installed to conserve less energy in existing light points.

4.5.18 Transportation Services

Dredging Corpn. Of India Ltd. :- All the dredgers in DCI fleet are installed with sophisticated and state of the art instrumentation like Differential Global Positioning System (DGPS) and Draft Volume Load Monitoring (DVLM) systems to facilitate efficient dredging with potential energy.

INTERNATIONAL OPERATIONS OF CPSEs

The CPSEs are increasingly into 'international trade' in goods and services, which has a direct bearing on earnings and expenditure of foreign exchange. During the year 2008-09, as many as 146 CPSEs had either foreign exchange earnings (FEE) or foreign exchange expenditure (FEE) out of the 246 operating CPSEs. As many as 33 CPSEs were net foreign exchange earners (Annex 5.1). Out of these 33 CPSEs, eight CPSEs, namely, ONGC Videsh Ltd.,

NALCO, Shipping Corporation of India Ltd., Airport Authority of India Ltd., IRCON International Ltd., Cotton Corporation of India Ltd., RITES Ltd. and Kudremukh Iron Ore Co. Ltd., earned (net) foreign exchange of more than Rs. 100 crore during 2008-09.

5.1 Foreign Exchange Earnings

Table 5.1 below lists the CPSEs that had gross foreign exchange earnings more than Rs. 1000 crores, during 2008-09 and 2007-08.

Table 5.1
Gross Foreign exchange Earnings of Select CPSEs
(more than Rs. 1000 crores)

S.No. CPSE Name	(Rs. in crores)	
	2008-09	2007-08
1 Indian Oil Corporation Ltd.	14962.63	114539.30
2 Mangalore Refinery & Petrochemicals Ltd.	11636.18	111414.50
3 Bharat Petroleum Corpn. Ltd.	6567.42	74401.60
4 ONGC Videsh Ltd.	6473.35	64354.90
5 Hindustan Petroleum Corpn. Ltd.	6021.26	69301.70
6 M M T C Ltd.	4594.80	39065.90
7 Shipping Corporation Of India Ltd.	4250.91	13696.90
8 Oil & Natural Gas Corporation Ltd.	3432.45	37947.20
9 National Aluminium Company Ltd.	2097.32	20952.60
10 State Trading Corpn. Of India Ltd.	1986.50	35616.30
11 Bharat Heavy Electricals Ltd.	1784.54	9390.90
12 STCL Ltd.	1722.40	17876.50
13 PEC Ltd.	1147.68	5945.30

Export of merchandise was the major source of foreign exchange earnings in both the years 2007-08 and 2008-09. Its share in total earnings improved

further from 95.08 percent (Rs 64351.17 crores) in 2007-08 to 95.15 percent (Rs 70588.47 crores) in 2008-09 (Table 5.2).

Table 5.2
Source of Foreign Exchange Earnings

SL. No.	Items	(Rs. in crore)	
		2008-09	2007-08
(i)	Export of Goods on FOB basis	70588.47	64351.17
		(95.15)	(95.08)
(ii)	Royalty, Know-how, Professional and Consultancy fee	1295.50	1177.26
		(1.75)	(1.74)

(iii) Interest and Dividend	113.34	122.89
	(0.15)	(0.18)
(iv) Other Income	2186.74	2026.69
	(2.95)	(3.00)
Grand Total (i) to (iv)	74184.05	67678.01
	(100)%	(100)%

Note: Figure in brackets are as percentage of total

5.2 Foreign Exchange Expenditure

Table 5.3 lists the CPSEs that had gross foreign exchange expenditure more than Rs. 1000 crore during 2008-09 and 2007-08.

Table 5.3
Gross Foreign Exchange Expenditure of Select CPSEs
(more than Rs. 1000 crores)

S.No.	CPSE	(Rs. in lakh)	
		2008-09	2007-08
1.	Indian Oil Corporation Ltd.	1499432.90	1233550.60
2.	Bharat Petroleum Corpn. Ltd.	452610.70	345607.50
3.	Hindustan Petroleum Corpn. Ltd.	330786.10	585581.10
4.	M M T C Ltd.	309411.70	209470.70
5.	Mangalore Refinery & Petrochemicals Ltd.	288803.10	253093.70
6.	Chennai Petroleum Corporation Ltd.	251125.80	199665.00
7.	Oil & Natural Gas Corporation Ltd.	165008.90	100529.20
8.	State Trading Corpn. of India Ltd.	156848.70	111432.40
9.	Steel Authority of India Ltd.	138226.20	69126.10
10.	P E C Ltd.	92684.00	50272.90
11.	Hindustan Aeronautics Ltd.	85288.50	65363.20
12.	M S T C Ltd.	65981.50	48510.30
13.	Bharat Heavy Electricals Ltd.	61751.80	37434.60
14.	Rashtriya Ispat Nigam Ltd.	40126.80	18897.20
15.	ONGC Videsh Ltd.	29254.10	48307.30
16.	Shipping Corporation of India Ltd.	28858.00	26978.50
17.	STCL Ltd.	26870.70	15123.20
18.	Bharat Electronics Ltd.	23757.20	11771.10
19.	Gail (India) Ltd.	20507.30	8121.90
20.	Rashtriya Chemicals and Fertilizers Ltd.	19194.10	2893.70
21.	NTPC Ltd.	15995.80	16324.60
22.	Ha & Handicrafts Handloom Exports Corp. of India Ltd.	15954.20	7062.70
23.	Mazagon Dock Ltd.	15665.60	9399.90
24.	Power Grid Corporation of India Ltd.	14914.00	5817.60
25.	Bharat Sanchar Nigam Ltd.	12477.60	4135.50
26.	Nuclear Power Corpn. of India Ltd.	10713.00	20428.00

The Oil sector Companies (i.e IOCL, BPCL, HPCL, MRPL, CPCL, ONGC and GAIL), SAIL, HAL, BHEL, RINL, SCI, BEL, RCF, NTPC, POWERGRID, BSNL and NPCIL have been the CPSEs that had large gross foreign exchange expenditure during 2008-09, mainly on account of import of goods and services

from the rest of the world. Table 5.4 below shows the expenditure of foreign exchange under different heads of import of goods (raw material/plants & machinery), consultancy fee and other payments. Import of 'raw materials' and 'capital goods' were the major items of foreign exchange expenditure.

Table 5.4
Items of Foreign Exchange Expenditure of CPSEs
(2008-09 and 2007-08)

Particulars	(Rs. in crore)	
	2008-09	2007-08
(a) Imports (CIF Basis)		
(i) Raw materials/Crude oil	357447.21 (83.36)	276132.51 (74.99)
(ii) Stores, Spares & Components	9092.52 (2.12)	10036.45 (2.73)
(iii) Capital Goods	11485.74 (2.67)	16273.65 (4.41)
Sub Total (a)	378025.47 (88.15)	302442.61 (82.13)
(b) Expenditure on account of :		
Royalty and Consultancy fee	12215.21 (2.85)	6572.09 (1.78)
(i) Interest payment	2481.17 (0.58)	2073.73 (0.56)
(ii) Others	36099.15 (8.42)	57139.22 (15.53)
Sub Total (b)	50795.53 (11.85)	65785.04 (17.87)
Grand Total (a + b)	428821.00 (100)	368227.65 (100)

Note: Figure in brackets are as percentage of total

The share of 'raw materials'/crude oil claimed the largest share (around 83.36%) of gross foreign exchange expenditures in both the years of 2008-09 and 2007-08. Exchange rate fluctuation and change in commodity prices have been also impacting the earnings and expenditures of CPSEs.

5.3 International Finance & Investment

5.3.1 Sources of funds

Finance mainly relates to external commercial borrowings and raising of resources through the

equity market abroad. Investment comprises off-shore investment by CPSEs by way of joint venture, merger and acquisition and for operation of Indian subsidiaries abroad. Funds in the form of secured and unsecured loans raised by CPSEs cognate group-wise, during the year 2008-09 are shown at Annexure – 5.2.

5.3.2 Listing of Securities of CPSEs abroad

Indian companies both in the public and private corporate sectors are increasingly focusing on niche areas to avail newer opportunities and to

enhance their strengths through cross border mergers and acquisitions. There is an increasing realization among Indian companies that mere organic growth is not enough to propel them towards growth, in view of the liberalization of the Indian economy. Several CPSEs covering various cognate groups have formed joint ventures or have set up subsidiaries abroad for consolidating their international operations.

5.4 International Operations of Select CPSEs

The paragraphs below discuss briefly the international operations of select CPSEs from those which appear in Table 5.1 and 5.3:

5.4.1 Indian Oil Corporation Ltd. (IOC)

Indian Oil, the flagship downstream oil company is actively pursuing upstream integration through exploration & production (E&P) activities both within and outside India. During the year, NIOC (National Iranian Oil Company) accepted the commerciality of the gas discovery made by the Company (in consortium with other oil companies) in the Farsi offshore exploration block in Iran. The Company signed production-sharing agreements for two blocks in Yemen and for one area in Libya. Furthermore, the Company entered into farm-in agreement with a partner for 12.5% participating interest in a deep-water exploration block in Timor Leste. As at the end of the FY, the Company had participating interest in nine overseas blocks.

Further, Indian Oil exported paraxylene produced at its Panipat Refinery complex to Indonesia. The export market for Linear Alkyl Benzene produced at the Company's Gujarat refinery extended to twelve countries.

Indian Oil (Mauritius) Ltd. (IOML) and Lanka IOC Ltd. ((LIOC) are subsidiaries of IOC. The main activities of these companies relate to imports, sale and distribution of petroleum products in Mauritius and Sri Lanka respectively. IOC Middle East FZE is a wholly owned subsidiary of IOC operating in Dubai, and is engaged in marketing of lubricants and other petroleum products in the Middle East, Africa and CIS regions.

During the year 2008-09, the Company imported 47.779 (PY 45.73) million tones (MT) crude oil valuing Rs. 131150 crores (PY Rs. 106261 crores) and 3.594 (PY 4.52) MT of petroleum (fuel)

products and lubricants valuing Rs. 12362 crores (PY Rs. 13602 crores). The Company exported petroleum and petrochemical products valuing Rs. 14785 crs (PY Rs. 11420 crores). Considering other items of foreign exchange inflows and outflows, the net foreign exchange earnings considering all inflows and outflows stood at (-) Rs. 134981 crores.

5.4.2 ONGC Videsh Limited (OVL)

OVL has been participating in opportunities for acquisition through various routes, like bidding rounds, direct negotiations, advised acquisitions etc. In the last few years, many countries like Libya, Nigeria, Vietnam, Syria, Yemen, Angola, Brazil, Colombia, Venezuela have offered acreages through bidding rounds. The Company has participated in nearly all of them and won a few. The Company expects good results out of the exploration prospects over the next couple of years. If proved successful in these ventures, the Company shall be adding reserves through drill-bit thereby reducing its overall acquisition cost of reserves considerably. The Company has presence in 16 countries and shall endeavor to consolidate its position in the regions/countries where it is already present while making attempt to enter attractive acreages in other hydrocarbon rich countries/regions. The overseas offices of your Company are located in Ho Chi Minh City (Vietnam), Yuzhno Sakhalinsk (Russia), Baghdad (Iraq), Tehran (Iran), Tripoli (Libya), Havana (Cuba), Caracas (Venezuela), Astana (Kazakhstan), Rio de Janeiro (Brazil), Bogota (Colombia).

The Company has four subsidiaries namely, ONGC Nile Ganga B.V., ONGC Narmada Ltd., ONGC Amazon Alaknanda Ltd., and Jarpeno Ltd., and one Joint Venture company ONGC Mittal Energy Ltd.. ONGC Nile Ganga BV has its registered office in Amsterdam (The Netherlands), and its offices in Khartoum (Sudan) and Damascus (Syria). ONGC Narmada Limited and ONGC Amazon Alaknanda Limited have their registered offices in Lagos (Nigeria) and Hamilton (Bermuda) respectively. Jarpeno Limited has its registered office in Cyprus and its subsidiaries have offices in London (U.K), Moscow & Tomsk (Russia), Jersey, Cyprus, Zug (Switzerland) and Kostanay (Kazakhstan).

During the year, the Company's acquired San Cristobal Project in Venezuela, Blocks BM-SEAL-4 & BM-BAR-1 in Brazil, Block AD-7 in Myanmar

and Blocks SSJN-7 & CPO-5 in Colombia. During the year, the Company also completed acquisition of UK listed company Imperial Energy Corporation Plc., an independent upstream oil exploration and production company having its main activities in the Tomsk region of Western Siberia, Russia.

During the year 2008-09, the foreign exchange earning of the company was Rs. 6473 crores (previous year Rs. 6435 crores), while the foreign exchange outgo was Rs. 2925 crores (previous year Rs. 4831 crores). Thus, the Company had a net foreign exchange outgo of Rs. 3548 crores during 2008-09, that was the highest among the CPSEs.

5.4.3 Shipping Corporation of India (SCI)

SCI is the pioneering enterprise in its line of business providing diversified services in almost all areas of ship transportation management in India as well as in overseas operations comprising including, Bulk Carrier and Crude oil Tanker, Liner & Passenger Services, Lighterage and Container services, Technical and Off-Shore services etc. The Bulk and Tanker operations were the main thrust of the Company's business. The following were the facets of international operations during the year :

- Transportation of imported crude oil for oil PSUs through own vessels or in-chartered vessels, viz. crude oil tankers and product tankers,
- LPG/Ammonia carriers and Chemical tankers for international transportation,
- Other bulk cargo transportation from international ports
- Various container service arrangements for Europe, Far-east, Middle-east and Gulf, &
- Break-bulk cargo transportation from USA, Europe and Far-east.

SCI has a JV company in Iran (Irano-Hind Shipping Co. Ltd.) in which SCI holds 49% share that continued to perform well during the Iranian year ended on 19.3.2009 and earned a net profit after tax of Iranian Rials 30.33 Billion (US\$ 3.38 million). The aggregate provisional net profit after tax of the JV company and its subsidiaries for the Iranian year

ended 19.3.09 was Iranian Rials 466 billion (US\$ 52 million). The JV company and its subsidiaries as on 19.03.2009, had a fleet of 8 ships with an aggregate of 0.494 million dead weight tonnage (DWT).

The Company also operates a LNG tanker each through two JV companies incorporated in Malta, viz. India LNG Transport Company (No. 1) Ltd and India LNG Transport Company (No. 2) Ltd., in each of which the Company holds 29.08% of the equity. The third JV company, India LNG Transport Company (No. 3) Ltd, in which the Company holds 26% stake, is set to start operation of transportation of LNG from Qatar to Dahej.

During 2008-09, the foreign exchange earnings of Shipping Corporation of India amounted to Rs. 4251 crores against the foreign exchange expenditure of Rs. 2886 crore during the same period. The net foreign exchange earnings of the company during the period, thus, stood at Rs. 1365 crore.

5.4.4 MMTC Ltd (MMTC)

MMTC (earlier known as Minerals & Metals Trading Corporation) is engaged in providing services in the field of international trading of minerals and metals, coal, fertilizer, diamonds, gems, jewellery and other products. Export of minerals mainly constituted of iron ore and chrome concentrate. During the year, China, Japan and South Korea were the key export markets. It has a wholly owned subsidiary namely MMTC Transitional Pte. Ltd. (MTPL) registered in Singapore. During the year 2007-08, MTPL achieved its highest ever business turnover of US\$ 686 million as against US\$ 557 million in the previous year. MTPL posted a profit before tax of US\$ 7.77 million (previous year US \$ 2.12 million) and profit after tax of US\$ 6.91 million (previous year US\$ 1.95 mln) during 2008-09.

The net worth of the Company stood at US\$ 14.6 million, that is approximately 15 times of the amount at inception. MTPL continues to enjoy prestigious 'Global Trader' status awarded to it by IE Singapore since the FY 2000. The foreign exchange earning, chiefly from exports, during 2008-09 was Rs 4595 crores (previous year Rs. 3907 crores), while the foreign exchange outgo was Rs. 30941 crores (previous year Rs. 20947 crores).

5.4.5 *National Aluminium Company Ltd. (NALCO)*

Export sales of Alumina was 8.52 lakh MT (PY 8.60 lakh MT) and that of Aluminium was 0.82 lakh MT (PY 1.02 lakh MT). Export sales was Rs. 2071 crores as compared to Rs. 2135 crores during the previous year.

Against a foreign exchange earnings of Rs. 2097 crore during 2008-09, the foreign exchange outgo of the company was Rs. 646 crore. NALCO had, therefore, a net foreign exchange earning of Rs. 1451 crore during the year.

5.4.6 *Steel Authority of India Ltd. (SAIL)*

The Company maintained its presence in through existing and new markets with exports of 2.5 lakh tonnes of steel during 2008-09. Export products primarily were Billets, Wire rods, Plates, HR coils and CRNO coils. For the first time, exports of plates were made to African and Gulf countries. Some of the other new markets where exports were undertaken for GP sheets were Kuwait, Uganda, South Africa, Bangladesh and Myanmar. Boiler-quality plates and GC sheets were added to the export basket for the first time.

Pursuant to an agreement between five companies including SAIL, as approved by the Government for facilitating acquisition of coking coal assets overseas with the aim to make PSUs self-reliant in the area of coking coal, a JV company namely International Coal Ventures Private Limited was incorporated. The company is scouting for coal properties in Australia, Mozambique and other countries.

Earnings in foreign exchange on account of export sales stood at Rs. 808 crores (previous year Rs. 1234 crores) in 2008-09, while foreign exchange outgo stood at Rs. Rs. 13823 crores (previous year Rs. 6913 crore).

5.4.7 *State Trading Corporation Ltd. (STC)*

STC, a trading company, is the primary channelizing agency for meeting the demand-supply deficits in the domestic economy. Due to the global slowdown, export of a number of items suffered

significant decline. Acting cautiously, the Company deliberately reduced the scale of operations in certain areas of export. Thus, exports during the year amounted to Rs. 2132 crores, as compared to Rs. 4002 crores in the previous year.

Major lines of export of STC have been iron ore, steel raw materials, petrochemicals, fertilizers, minerals and metals, edible oils and maize/rice bran. The import turnover reached an all-time high of Rs. 16316 crores, as compared to Rs. 10773 crores in the previous year. Bullion was the single largest item of import, constituting about 35% of the total import turnover, followed by petrochemicals valuing Rs. 3300 crores, and fertiliser import of Rs. 1615 crores.

The total foreign exchange earnings of the Corporation by way of exports, trade margins, etc was Rs. 1986 crores (previous year Rs. 3562 crores) while the foreign exchange outgo by way of imports and other expenses was Rs. 15685 crores (previous year Rs. 11143 crores).

5.4.8 *RITES Ltd. (RITES)*

The Company continued to provide export packages for supply of locomotives, coaches, equipment, spare parts and modernization of workshops. Diversification was pursued in the areas of rehabilitation of locomotives and rolling stock activities, with the company securing a contract for rehabilitation of seven locomotives in Tanzania, in addition to the on-going contracts in that country and in Mozambique.

A leasing contract with Tanzania Railways Ltd. commenced for operating medium-gauge passenger coaches in addition to the existing operation of diesel locomotives in that country as well as in Mozambique. In addition, the company secured contracts for supply, etc to Sri Lanka and Senegal. In the consultancy segment, the company secured business from Saudi Arabia, Indonesia, Nepal, Botswana, Afghanistan and UAE (Sharjah).

Foreign Exchange Earning (FEE) & Foreign Exchange Utilization(FEU) by CPSEs

Rs in Lakhs

S.No.	CPSE	FEE	FEU	NET FEE
1.	Ongc Videsh Ltd.	647335	292541	354794
2.	National Aluminium Company Ltd.	209732	64562	145170
3.	Shipping Corporation of India Ltd.	425091	288580	136511
4.	Airports Authority of India Ltd.	98801	21063	77738
5.	Ircon International Ltd.	80831	8163	72668
6.	Cotton Corpn. of India Ltd.	16247	394	15853
7.	Rites Ltd.	13693	1917	11776
8.	Kudremukh Iron Ore Co.ltd	82400	70771	11629
9.	Indian Rare Earths Ltd.	4782	349	4433
10.	Air India Charters Ltd.	4249	903	3346
11.	Indian Railway Catering and Tourism Corpn. Ltd.	3085	28	3057
12.	Central Cottage Industries Corpn. of India Ltd.	2706	20	2686
13.	Hindustan Paper Corporation Ltd.	3402	1277	2125
14.	Antrix Corporation Ltd.	14031	11923	2108
15.	India Tourism Dev. Corpn. Ltd.	2008	433	1575
16.	EDCIL(India) Ltd.	1468	216	1252
17.	MECON Ltd.	1835	637	1198
18.	Karnataka Antibiotics & Pharmaceuticals Ltd.	1049	443	606
19.	Projects & Development India Ltd.	544	44	500
20.	Indian Renewable Energy Devt.agency Ltd.	3521	3180	341
21.	Burn Standard Company Ltd.	1207	893	314
22.	Andrew Yule & Company Ltd.	330	101	229
23.	Scooters India Ltd.	236	9	227
24.	WAPCOS Ltd.	8475	8285	190
25.	National Film Dev. Corpn. Ltd.	237	49	188
26.	Hotel Corpn. of India Ltd.	135	0	135
27.	Engineering Projects (India) Ltd.	94	4	90
28.	Central Warehousing Corpn.	100	32	68
29.	National Small Industries Corpn. Ltd.	343	296	47
30.	Certification Engineers International Ltd.	93	48	45
31.	Sponge Iron India Ltd.	7	0	7
32.	BBJ Construction Company Ltd.	6	0	6
33.	Ranchi Ashok Bihar Hotel Corpn. Ltd.	1	0	1
34.	Fresh & Healthy Enterprises Ltd.	0	1	-1
35.	HSCC (India) Ltd.	0	1	-1
36.	FCI Aravali Gypsum & Minerals (India) Ltd.	0	1	-1
37.	Maharashtra Elektros melt Ltd.	0	2	-2
38.	National Research Devp. Corpn.	23	25	-2
39.	National Backward Classes Finance & Devp.co.	0	3	-3
40.	Hooghly Dock and Port Engineers Ltd.	0	4	-4
41.	Heavy Engineering Corpn. Ltd.	0	5	-5
42.	National Seeds Corpn. Ltd.	0	6	-6
43.	Rail Vikas Nigam Ltd.	0	25	-25
44.	HMT Ltd.	0	41	-41
45.	HMT Watches Ltd.	0	44	-44
46.	Artificial Limbs Mfg. Corpn. of India	0	45	-45

S.No.	CPSE	FEE	FEU	NET FEE
47.	Brahmaputra Valley Fertilizer Corpn. Ltd.	0	83	-83
48.	North Eastern Electric Power Corporation Ltd.	0	90	-90
49.	Manganese Ore(India) Ltd.	0	93	-93
50.	Mineral Exploration Corpn. Ltd.	0	97	-97
51.	Biecco Lawrie Ltd.	0	115	-115
52.	HMT (International) Ltd.	632	747	-115
53.	Central Mine Planning & Design Institute Ltd.	0	141	-141
54.	Mahanagar Telephone Nigam Ltd.	593	782	-189
55.	Bharat Immunologicals & Biologicals Corp. Ltd.	0	207	-207
56.	Braithwaite & Co. Ltd.	0	262	-262
57.	NEPA Ltd.	0	265	-265
58.	Bridge & Roof Co.(India) Ltd.	970	1260	-290
59.	Rural Electrification Corpn. Ltd.	0	294	-294
60.	Konkan Railway Corporation Ltd.	0	341	-341
61.	Hindustan Antibiotics Ltd.	464	836	-372
62.	Housing & Urban Dev. Corpn. Ltd.	835	1284	-449
63.	Hindustan Insecticides Ltd.	1299	1937	-638
64.	Madras Fertilizers Ltd.	0	650	-650
65.	Narmada Hydroelectric Development Corpn. Ltd.	0	812	-812
66.	India Trade Promotion Organisation	1179	2087	-908
67.	Railtel Corporation India Ltd.	0	924	-924
68.	Bharat Heavy Plate & Vessels Ltd.	0	950	-950
69.	National Fertilizers Ltd.	0	1102	-1102
70.	India Infrastructure Finance Co. Ltd.	235	1386	-1151
71.	Mahanadi Coalfields Ltd.	0	1188	-1188
72.	Hindustan Photo Films Manufacturing Co. Ltd.	0	1235	-1235
73.	Instrumentation Ltd.	102	1497	-1395
74.	Central Coalfields Ltd.	0	1416	-1416
75.	Eastern Coalfields Ltd.	0	1642	-1642
76.	Rajasthan Electronics and Instruments Ltd.	131	1820	-1689
77.	Telecommunications Consultants (India) Ltd.	19592	21368	-1776
78.	Broadcast Engg. Consultants India Ltd.	27	1900	-1873
79.	Western Coalfields Ltd.	0	2121	-2121
80.	Bharat Coking Coal Ltd.	0	2149	-2149
81.	Hmt Machine Tools Ltd.	0	2278	-2278
82.	NMDC Ltd.	8	2597	-2589
83.	BEL Optronics Ltd.	241	2917	-2676
84.	Mumbai Railway Vikas Corporation Ltd.	0	2814	-2814
85.	Hindustan Organic Chemicals Ltd.	3	2902	-2899
86.	Hindustan Latex Ltd.	1997	5073	-3076
87.	Central Electronics Ltd.	884	3996	-3112
88.	Uranium Corporation of India Ltd.	0	3189	-3189
89.	Mishra Dhatu Nigam Ltd.	0	3675	-3675
90.	Bharat Refractories Ltd.	0	3680	-3680
91.	National Informatics Centre Services Incorporated	0	4219	-4219
92.	Engineers India Ltd.	12144	16589	-4445
93.	Bharat Pumps & Compressors Ltd.	0	4556	-4556
94.	Tehri Hydro Development Corp. Ltd.	0	4944	-4944
95.	Hindustan Newsprint Ltd.	13	5376	-5363
96.	Coal India Ltd.	699	6235	-5536

S.No.	CPSE	FEE	FEU	NET FEE
97.	Cochin Shipyard Ltd.	61172	67663	- 6491
98.	Pawan Hans Helicopters Ltd.	9908	18018	- 8110
99.	Satluj Jal Vidyut Nigam Ltd.	2089	10498	- 8409
100.	Container Corporation of India Ltd.	0	9822	- 9822
101.	Neyveli Lignite Corpn. Ltd.	0	10022	- 10022
102.	National Textile Corpn. Ltd.	0	10162	- 10162
103.	Goa Shipyard Ltd.	1134	11987	- 10853
104.	Balmer Lawrie & Co. Ltd.	1898	14428	- 12530
105.	Airline Allied Services Ltd.	147	14413	- 14266
106.	Indian Railway Finance Corporation Ltd.	0	14842	- 14842
107.	Power Finance Corporation	0	15121	- 15121
108.	Numaligarh Refinery Ltd.	0	15698	- 15698
109.	South Eastern Coalfields Ltd.	0	15732	- 15732
110.	Dredging Corpn.of India Ltd.	0	15878	- 15878
111.	Garden Reach Shipbuilders & Engineers Ltd.	0	19929	- 19929
112.	Hindustan Copper Ltd.	7522	31061	- 23539
113.	Hindustan Shipyard Ltd.	3834	27705	- 23871
114.	NHPC Ltd.	48743	73107	- 24364
115.	Northern Coalfields Ltd.	0	26749	- 26749
116.	Electronics Corpn. of India Ltd.	555	28505	- 27950
117.	Bharat Dynamics Ltd.	14	34602	- 34588
118.	Oil India Ltd.	6	34904	- 34898
119.	Bharat Earth Movers Ltd.	28279	77289	- 49010
120.	I T I Ltd.	25	62933	- 62908
121.	Security Printing & Minting Corpn. India Ltd.	495	75831	- 75336
122.	Fertilizers & Chemicals (Travancore) Ltd.	3633	98353	- 94720
123.	STCL Ltd.	172240	268707	- 96467
124.	Nuclear Power Corpn. of India Ltd.	9	107130	- 107121
125.	Bharat Sanchar Nigam Ltd.	17166	124776	- 107610
126.	Power Grid Corporation of India Ltd.	101	149140	- 149039
127.	Mazagon Dock Ltd.	3443	156656	- 153213
128.	Handicrafts & Handloom Exports Corp. of India Ltd.	4349	159542	- 155193
129.	NTPC Ltd.	362	159958	- 159596
130.	Rashtriya Chemicals and Fertilizers Ltd.	0	191941	- 191941
131.	Gail (India) Ltd.	696	205073	- 204377
132.	Bharat Electronics Ltd.	7230	237572	- 230342
133.	Rashtriya Ispat Nigam Ltd.	7855	401268	- 393413
134.	Bharat Heavy Electricals Ltd.	178454	617518	- 439064
135.	M S T C Ltd.	27597	659815	- 632218
136.	Hindustan Aeronautics Ltd.	43658	852885	- 809227
137.	P E C Ltd.	114768	926840	- 812072
138.	Steel Authority of India Ltd.	80753	1382262	- 1301509
139.	Oil & Natural Gas Corporation Ltd.	343245	1650089	- 1306844
140.	State Trading Corpn. of India Ltd.	198650	1568487	- 1369837
141.	Mangalore Refinery & Petrochemicals Ltd.	1163618	2888031	- 1724413
142.	Chennai Petroleum Corporation Ltd.	0	2511258	- 2511258
143.	M M T C Ltd.	459480	3094117	- 2634637
144.	Hindustan Petroleum Corpn. Ltd.	602126	3307861	- 2705735
145.	Bharat Petroleum Corpn. Ltd.	656742	4526107	- 3869365
146.	Indian Oil Corporation Ltd.	1496263	14994329	- 13498066

Sector Wise Secured Loan and UnSecured Loan for 2008-09 and 2007-08 of Foreign Parties

(Rs. in Lakh)

Comodity name	Data for 2008-09		Data for 2007-08	
	Secured Loan	Un Secured Loan	Secured Loan	Un Secured Loan
AGRICULTURE				
Agro Based Industries	0	0	0	0
Sub Total	0	0	0	0
ELECTRICITY				
Generation	81808	1442816	81860	84769
Transmission	877431	109468	554152	114735
Sub Total	959239	1552284	636012	964504
MANUFACTURING				
Chemicals & Pharmaceuticals	0	0	0	0
Consumer Goods	0	0	0	0
Fertilizers	0	0	1604	0
Heavy Enginnering	0	0	0	0
Medium & Light Engineering	0	0	0	0
Petroleum (Refinery & Marketing)	17541	1207257	15311	894121
Steel	0	141051	0	51565
Textiles	0	0	0	3567
Transportation Equipment	0	3444	0	3567
Sub Total	17541	1351752	16915	949253
MINING				
Coal & Lignite	0	401512	0	349457
Crude Oil	0	0	0	0
Other Minerals & Metals	0	0	0	0
Sub Total	0	401512	0	349457
SERVICES				
Contract & Construction Services	0	0	0	0
Financial Services	19777	768818	16800	638434
Industrial Dev. & Tech. Consultancy Services	5000	6719	0	6419
Telecommunication Services	0	0	0	0
Tourist Services	0	0	0	0
Trading & Marketing	0	0	0	0
Sub Total	223010	780380	122358	650444
UNDER CONTRUCTION				
Enterprises Under Construction	0	0	0	0
Sub Total	0	0	0	0
Total	1199790	4085928	775285	2913658

The Central Public Sector Enterprises (CPSEs) belong to either of the two broad classifications of 'statutory corporations' or 'Government companies'. While the Corporation form of CPSEs have their objectives and scope defined in the legislation/Act of Parliament, the Company form of CPSEs have their functions articulated based on the Articles of Association. These Government companies are, moreover, registered with the Registrar of Companies under the Companies Act, 1956.

The CPSEs are mostly commercial enterprises. Some CPSEs, such as, National Film Development Corporation, National Research Development Corporation, National Small Industries Corporation Ltd., Jute Corporation of India Ltd. and Handicrafts & Handloom Export Corporation India Ltd. etc. are, however, 'promotional' in nature.

In general, these are large scale enterprises requiring appropriate organizational structure, with particularization of functions and delegation of authority (from top to bottom). With a view to bring about unity of purpose, moreover, there is always the need for co-ordination. Necessary planning is called vis-à-vis order booking / demand forecasting, sales network, man-and-machine utilization, design and research, welfare measures and job satisfaction of employees. Different CPSEs have been taking various HR initiatives for employee involvement, knowledge acquisition, career and succession planning etc for improving the performance in their respective organizations. Essentially, these initiatives revolve around building competency levels followed by commitment to the organization and systems improvement, and finally evolving a vibrant corporate culture.

The Department of Public Enterprises (DPE), Government of India has been, furthermore, formulating guidelines in respect of organizational structure, corporate governance, wage and salary

policy, executive development programme etc., which are applicable to all the CPSEs. The paragraphs below discuss some of these guidelines issued by the DPE.

6.1 Organisational Structure of CPSEs

The Department of Public Enterprises(DPE) formulates policy guidelines on the Board structure of Public Enterprises and advises on the shape and size of organizational structure of CPSEs. The public enterprises are categorized in four Schedules namely 'A', 'B', 'C' and 'D' based on various quantitative, qualitative and other factors. The quantitative factors are: investment, capital employed, net sales, profit before tax, number of employees, number of units and value added per employee. Qualitative factors are: national importance, complexities of problems, level of technology, prospects for expansion and diversification of activities and competition from other sectors, etc. The other factors relate to the strategic national importance of the corporation. The pay scales of Chief Executives and full time Functional Directors in CPSEs are determined as per the Schedule of the concerned enterprise.

Proposals received from various administrative Ministries/Departments for initial categorization /upgradation of CPSEs in appropriate schedule, personal upgradation, creation of posts in CPSEs, etc. are considered in DPE in consultation with the Public Enterprises Selection Board (PESB). During 2008-09, 2 CPSEs were initially categorized in appropriate Schedule, 3 CPSEs were upgraded to higher Schedule and one post of Chief Executive and 9 posts of Functional Directors were created.

As on 31.3.2009, there were 247 CPSEs in the country. Out of the 247 CPSEs, there are 58 Schedule 'A', 70 CPSEs in Schedule 'B', 46 CPSEs in Schedule 'C' and 6 CPSEs Schedule 'D'. The rest are covered under the uncategorized category. The details of the Board level posts (whole time) in the categorized CPSEs are given in the table 6.1 below :

Table 6.1
Details of Board level posts in CPSE

Schedule	Chief Executive		Whole Time Director	
	2008	2009	2008	2009
Schedule A	56	58	–	–
Schedule B	74	70	202	213
Schedule C	47	46	185	183
Schedule D	06	06	67	67
Total	183	180	454	463

6.2 Corporate Governance and CPSEs

The concept of Corporate Governance has generated extensive debate during the last few years due to the fast changing economic scenario all over the world. The term Corporate Governance includes the policies and procedures adopted by a corporate entity in achieving its objectives in relation to shareholders, employees, customers and suppliers, regulatory authority and the community at large. In general parlance, it means a code of corporate conduct in relation to all the stakeholders, whether internal or external. Corporate Governance implies transparency of management systems and encompasses the entire mechanics of the functioning of the company. It provides a system by which corporate entities are directed and controlled, besides attempting to put in place a system of checks and balances between the shareholders, directors, auditors and the management.

In India, all listed companies including listed CPSEs are covered by the SEBI guidelines. To further improve Corporate Governance standards in India, SEBI revised the code of Corporate Governance based upon the recommendations of N.R. Narayana Murthy Committee set up in 2002. Clause 49 of SEBI guidelines mandates a listed company to comply with the various provisions relating to corporate governance. The Organization for Economic Cooperation and Development (OECD), which is a forum of the Governments of 30 democracies also took initiatives to address governance issues and it suggested principles of Corporate Governance. India is not a member of OECD. In September 2005, the OECD circulated guidelines on Corporate Governance of State-owned enterprises. These guidelines cover issues like (i) ensuring an effective legal and regulatory framework for State-owned enterprises; (ii) the State acting as

an owner; (iii) equitable treatment of shareholders; (iv) relations with stakeholders; (v) transparency and disclosures; and (vi) responsibilities of the Boards of State-owned enterprises.

The post-1991 period has witnessed significant changes in the public sector policy. The areas reserved for public sector were reduced. The Central Public Sector Enterprises (CPSEs) were expected to look for internal resources and borrowings and concentrate on improvement in operations and efficiency on commercial lines of operation aimed at earning profit.

In pursuance of the Industrial Policy Statement of 24.7.1991, detailed guidelines on composition of Board of Directors were issued by the Department of Public Enterprises (DPE) in March 1992. These guidelines inter-alia provided that at least one-third of the Directors on the Board of a CPSE should be non-official Directors. The Navratna and Miniratna schemes evolved by the Government in 1997 provided that these CPSEs should set up Audit Committees. Based on the SEBI guidelines, further instructions were issued by DPE in November 2001 stating that at least half of the Board of listed CPSEs with executive Chairman should be Independent Directors.

6.2.1 Formulation of Guidelines on Corporate Governance

In August, 2005, the Government enhanced the powers delegated to Navratna, Miniratna and other profit making PSEs. Further, 9 more CPSEs were granted Navratna status in 2007 and 2008. As a result the public accountability of the PSEs has increased. In this context, Government had approved the implementation of guidelines on corporate governance for CPSEs. These guidelines were formulated by

DPE keeping in view relevant laws, instructions and procedures. The views of various stakeholders such as administrative Ministries/ Departments, CPSEs, nodal Ministries like Company Affairs, Finance (Expenditure), Comptroller and Auditor General (C&AG), Securities and Exchange of Board of India (SEBI), Institute of Chartered Accountants of India (ICAI), Institute of Company Secretaries of India (ICSI), Institute of Cost & Works Accountants of India (ICWAI), National Foundation for Corporate Governance (NFCG), Institute of Public Enterprise, etc. were taken into account while formulating these Guidelines.

These guidelines are applicable to listed as well as un-listed CPSEs and cover issues like composition of Boards, Audit Committee, Subsidiary companies, disclosures, Code of conduct and ethics, risk management and

These guidelines are applicable to listed as well as unlisted CPSEs and cover issues like composition of Boards, Audit Committee, Subsidiary companies, disclosures, Code of Conduct and ethics, risk management and compliance.

6.2.1.1 Composition of Board

In respect of the Board composition, these Guidelines provide that the number of functional Directors should not exceed 50% of the actual strength of Board and the number of Government nominee Directors shall be restricted to maximum of two. In case of listed CPSEs with executive chairman, the number of non-official Directors shall be at least 50% of Board members. In case of unlisted CPSEs and listed CPSEs with non-executive chairman, at least one-third of the Board Members shall be non-official Directors. The Government has also laid down pre-defined criteria in terms of educational qualifications, age and experience in respect of persons to be considered for appointment as non-official Directors. As in clause 49 of SEBI, relevant clauses have been incorporated in these guidelines to ensure 'independence' of non-official Directors and avoid potential conflict. It has also been provided that the Directors nominated by any institution other than public financial institution will not be treated as non-official Directors.

It has been further mandated that the Board meetings are to be held at least once in every 3

months and at least 4 such meetings in a year and all relevant information is required to be given to the Board. Further, the Board should lay down code of conduct for all members and senior management. In this regard, a model Code has been incorporated in the Guidelines to assist the CPSEs. The Guidelines inter alia provide that the Board should ensure integration and alignment of risk management system and the company should undertake suitable training programmes for its new Board members.

6.2.1.2 Audit Committee

The provisions relating to Audit Committee require a qualified and independent Audit Committee to be set up by CPSEs with minimum three Directors as members. Further, two-thirds of the members of this Committee should be independent Directors with chairman to be independent Director. The Audit Committee has been given extensive powers with regard to financial matters of company and it should meet at least 4 times in a year.

6.2.1.3 Subsidiary Companies

With regard to subsidiary companies, it has been provided that at least one independent Director of holding company should be Director on the Board of subsidiary company, and the Audit Committee of holding company should review the financial statements of subsidiary company. All significant transactions and agreements of subsidiary company are required to be brought to the notice of the Board of Directors of holding company.

6.2.1.4 Disclosures

The provisions regarding disclosures require all transactions to be placed before the Audit Committee. The Guidelines mandate that while preparing financial statements, treatment of data should be as per prescribed Accounting Standard and if there are any deviations, the same are to be explicitly mentioned. Further, the Board is to be informed about risk assessment and minimization procedures, and the Management is to make disclosures to the Board relating to all financial and commercial transactions where they have personal interest or may have a potential conflict.

6.2.1.5 Compliance

It has also been mandated in the Guidelines that there should be a separate section on Corporate

Governance in Annual report of company with details of compliance. The CPSEs will have to obtain a certificate from auditors/company secretary regarding compliance with these Guidelines. Chairman's speech in AGM will also carry a section on compliance with Corporate Governance Guidelines and will form part of the company's Annual Report.

6.2.1.6 Implementation and Grading

The DPE will grade CPSEs on the basis of their compliance with Guidelines and such grading will be used for MOU Awards.

Keeping in view the importance of Corporate Governance in State Level Public Enterprises (SLPEs), all States have also been advised to implement these Guidelines.

The proposal for extension of guidelines on Corporate Governance is under consideration of the Government of India.

6.3 Appointment of Functional Directors of CPSEs

Functional Directors including Chief Executives of the CPSEs are appointed by the concerned Administrative Ministries/Departments on the basis of recommendations of Public Enterprises Selection Board (PESB). The Public enterprises Selection Board is a high powered body constituted by the Government of India vide its Resolution dated 3.3.1987. The PESB has been set up with the objective of evolving a sound managerial policy for the Central Public Sector Enterprises and, in particular, to advise Government on appointments to their top management posts. As per GOI Resolution, the PESB shall consist of a part-time or full-time chairperson and three full-time Members. The Chairperson and Members are persons who have had a long and distinguished career in management of public or private corporations or public in administration, and have had a proven record of achievements, preferably, in the field of personnel, finance, production or marketing. The Government has decided that candidates from State Level Public Sector Enterprises (SLPEs) and the 'private sector' will also be considered for selection to the post of functional directors in CPSEs as non-internal candidates alongwith the candidates of Public Sector Enterprises subject to fulfilling the eligibility criteria. The Government has recently revised the procedure

for obtaining CVC clearance in respect of candidates recommended by PESB for Board level posts in CPSEs so as to reduce delays. It has been furthermore prescribed that CVC will directly grant its clearance or otherwise convey the same to the concerned Administrative Ministry/Department within 15 days of the receipt of the recommendations of PESB.

6.3.1 Professionalization of Boards of CPSEs

The DPE formulates policy guidelines on the Board structure of CPSEs. In pursuance of the public sector policy being followed since 1991, several measures have been taken by the Department of Public Enterprises to professionalize the Boards of public enterprises. The guidelines issued in 1992 mention that outside professionals should be inducted on the Boards of CPSEs in the form of part-time non-official Directors and that the number of such Directors should be at least 1/3rd of the actual strength of the Board. In the case of listed CPSEs headed by an executive Chairman, the number of non-official Directors (Independent) should be at least half the strength of the Board. The guidelines also provide that the number of Government Directors on the Boards should be not more than one-sixth of the actual strength of the Board subject to a maximum of two. Apart from this, there should be some functional Directors on each Board whose number should not exceed 50% of the actual strength of the Board.

In regard to selection and appointment of non-official (Independent) Directors on the Boards of CPSE, the following eligibility criteria is being adopted :

- a. Age : Age band should be between 45-65 years (minimum/maximum limit). This could however be relaxed for eminent professionals for reasons to be recorded, being limited to 70 years.
- b. Qualification : Minimum qualification for part time non official (Independent) Directors would be graduate degree from a recognized university.
- c. Experience : Persons of eminence with proven track record from industry, business or agriculture; CMD/MD in corporate sector/PSE; Professor level in an academic institution or professionals of repute like eminent Chartered

Accountants/Cost Accountants at the level of Directors of Institutes/Heads of Department; persons having experience of not less than 10 years at the level of Joint Secretary and above in the Government.

The proposals for appointment of non-official (Independent) Directors are initiated by the concerned Administrative Ministries/Departments. In so far as Navratna and Miniratna CPSEs are concerned, the selection of non-official Directors is made by the Search Committee consisting of Chairman, PESB, Secretary, DPE, Secretary of the administrative Ministry/Department of the CPSE, Chief Executive of the concerned CPSE and non-official Members. In the case of remaining CPSEs (other than Navratna/Miniratna CPSEs), Public Enterprises Selection Board (PESB) makes the selection of non-official (Independent) Directors. The concerned Administrative Ministry/Department appoints the non-official (Independent) Directors on the basis of recommendations of Search Committee/PESB after obtaining the approval of the competent authority.

The Navratna scheme provides that the Boards of these companies should be professionalised by inducting a minimum of 4 non-official Directors before their Boards can exercise the enhanced powers. Similarly, in the case of Miniratna CPSEs also the induction of minimum 3 non-official Directors is pre-condition for the exercise of delegated powers under the Miniratna Scheme.

During the last three years (2006, 2007 and 2008), the Search Committee and PESB have recommended the names of 387 persons for appointment as non-official (Independent) Directors on the Boards of CPSEs. During the year 2009 (till October, 2009), the names of 67 persons have been recommended by the Search Committee/PESB in this regard.

The functional Directors, on the other hand, are appointed by the administrative Ministry on the recommendations of PESB and with the approval of the Competent Authority. The Government Directors are appointed in ex-officio capacity and their choice vests with the concerned administrative Ministries/Departments.

In order to ensure timely appointment of requisite number of non-official Directors on the

Board of CPSEs, the DPE has formulated proposals and submitted the same to the Government for approval. DPE's proposal to expedite the process of selection and appointment of non-official (Independent) Directors on the Boards of CPSEs is being considered by the Government.

6.4 Wage & Salary policies in CPSEs

The Department of Public Enterprises (DPE) functions as the nodal Department in the Government of India, inter-alia, in respect of policy relating to wage settlements of unionized employees, pay revision of non-unionized supervisors and the executives holding posts below the Board level as well as at the Board level in CPSEs. The CPSEs are largely following the Industrial Dearness Allowance (IDA) pattern scales of pay. In some cases, Central Dearness Allowance (CDA) pattern scales of pay is also being followed in the CPSEs.

6.4.1 Industrial Dearness Allowance (IDA)

The Government policy relating to pay scales and pay pattern is broadly that all employees of the CPSEs should be on IDA pattern and related scales of pay. Instructions had been issued to all the administrative Ministries by the DPE in July, 1981 and July, 1984 that as and when a new CPSE is created or established, IDA pattern and related scales of pay should be adopted ab-initio. Vide DPE O.M. dated 10.08.2009, it was reiterated and emphasized that 'appointments' including 'promotion' on or after 01.01.1989 in CDA scales of pay has to be in IDA scales of pay. There are 246 CPSEs (excluding Banks, Insurance Companies and newly set up CPSEs) under the administrative control of the Central Government. They employ approximately 15.35 lakh workmen, clerical staff and executives. Out of this, around 95% of the workmen and executives are on IDA pattern and related scales of pay.

6.4.1.1 First Pay Revision Committee (for the revision of scales of pay of Executives and non-unionised supervisors under IDA pattern of pay scales in CPSEs w.e.f. 01.01.1997).

The pay revision for the IDA executives and non-unionized supervisors was done w.e.f 1.1.97 for a period of ten years based on the recommendations of Justice Mohan Committee (1st Pay Revision Committee). The duration of this pay revision was for 10 years i.e. upto 31.12.2006.

6.4.1.2 Second Pay Revision Committee (for the revision of scales of pay of Executives and non-unionised Supervisors under IDA pattern of pay scales in CPSEs w.e.f. 01.01.2007).

The Second Pay Revision Committee (2nd PRC), headed by Justice M. Jagannadha Rao, retired judge of Supreme Court, for the revision of scales of pay of Board level and below Board level executives (including non-unionised supervisors) of CPSEs following Industrial Dearness Allowance (IDA) pattern scales of pay w.e.f. 01.01.2007 was constituted vide the Government of India Resolution dated 30.11.2006. The Government, after due consideration of the recommendations of the 2nd Pay Revision Committee issued orders on 26.11.2008 and 09.02.2009. The salient features of these Orders vis-à-vis scales of pay of Board level and below Board level executives are as follows :

- i. New pay scales ranging from Rs. 12,600-32,500 (for E-0 grade) to Rs. 80,000-1,25000 (for Chief Executives of schedule 'A' CPSEs) in CPSEs.
- ii. A uniform fitment benefit @ 30% on basic pay plus DA @ 68.8% as on 01.01.2007.
- iii. Rate of increment per annum @ 3% of basic pay.
- iv. Perks and allowances upto the maximum of 50% of basic pay, with provision of 'Cafeteria Approach'.
- v. Performance Related Pay (PRP) ranging from 40% to 200% of the basic pay.
- vi. Superannuation benefit upto 30% of basic pay.
- vii. Ceiling on gratuity raised to Rs. 10.00 Lakh w.e.f. 01.01.2007 in respect of executives and non-unionised supervisors.
- viii. Implementation of Pay Revision linked to affordability of the CPSE.
- ix. CPSEs have to finance the pay revision from their own resources and no budgetary support will be provided for this purpose.
- x. An Anomalies Committee consisting of Secretaries of Department of Public Enterprises (DPE), Department of Expenditure

and Department of Personnel & Training, Government of India has been constituted to look into further specific issues/ problem that may arise in implementation of Governments orders on the recommendation of 2nd PRC.

- xi. DPE will issue necessary instructions/ clarifications, whenever required, in implementation of the decision on pay revision.

A Committee of Ministers headed by the Home Minister also looked into the demands of the executives of Oil & Power Sector CPSEs. Based on the recommendations of the Committee of Ministers, the Government issued Orders on 02.04.2009 to extend the following additional benefits :

- i. Benefit of merger of DA with the basic pay for the purpose of fitment raising the fitment from 68.8% to 78.2%.
- ii. Superannuation benefit upto 30% of basic pay + DA instead of basic pay alone.
- iii. Limiting the expenditure on infrastructure to recurring cost of running the facilities with a ceiling of 10% of basic pay.
- iv. Enhanced allowances could be effective from 26.11.2008 instead of from the date of issue of Presidential Directive, provided the Presidential Directive is issued within one month from 02.04.2009.
- v. These benefits to be extended to all CPSEs. Benefits as given in these O.Ms to be viewed as a total package. No change need be made in O.Ms dated 26.11.2008 and 09.02.2009.

6.4.2 Policy on 7th Round of Wage negotiations

The DPE vide its OM dated 9.11.2006 has issued the policy guidelines for the 7th Round of Wage Negotiations (which falls due on a general basis from 01.01.2007) between the Management and the unionized workmen of CPSEs. The Management of CPSEs have the freedom to negotiate revision of pay scales for the workmen within certain conditions. The guidelines are broadly similar to the earlier policy on the Sixth Round of Wage Negotiations. The guidelines, inter alia, broadly indicate that the wage settlement will be for a period of 10 years with 100% DA neutralization. The Government vide O.M.

dt. 01.05.2008, further, allowed the Administrative Ministries/Departments (concerned with the CPSEs) take a decision on a case by case basis for the periodicity of Wage Settlement for a period below 10 years but not less than 5 years, with the approval of their Minister.

6.4.3 Pay revision of employees under CDA Pattern in CPSEs

CDA pattern pay scales are applicable to some of the clerical staff, unionized cadres and executives of the 69 CPSEs, who were on the rolls of these CPSEs as on 1.1.1986 and upto 31.12.1988 and were in receipt of CDA pattern pay scales during that time. A High Power Pay Committee (HPPC) was appointed by the Government of India, in pursuance of the Supreme Court directions dated 12.3.1986, which submitted its Report to the Government on 24.11.1988. The recommendations of HPPC were implemented in these CPSEs. In pursuance of the Supreme Court direction dated 3.5.1990 read with the subsequent directions dated 28.8.1991, IDA pattern and related scales of pay were introduced in these CPSEs with effect from 1.1.1989. Out of 69 CPSEs (covered under HPPC), there are 48 CPSEs at present that are following both CDA and IDA pattern scales of pay. As per the recommendations of the HPPC and Supreme Court directives thereon, the employees following CDA pattern of scales of the CPSEs would get pay revision only as and when similar changes are introduced for the Central Government employees.

The DPE vide its OM dated 14.10.2008, has accordingly revised the pay scales of the employees of CPSEs following CDA pattern w.e.f. 01.01.2006, based on Government decision in respect of Central Government employees. The benefit of pay revision was allowed only to the employees of those CPSEs which are not loss making and are in a position to absorb the additional expenditure on account of pay revision from their own resources without any budgetary support from the Government. It has also been indicated that the Board of Directors would consider the proposal of pay revision of all the employees in the CPSE, keeping in mind the affordability and capacity of the CPSE to pay and submit a proposal to its Administrative Ministry/Department, which will approve the proposal with the concurrence of its Financial Advisor. Vide O.M. dtd. 20.1.2009 guidelines on revised allowances for these employees have also been issued.

6.5 Executives Development Programme (EDP)

As the nodal Department for CPSEs, the Department of Public Enterprises is supplementing the efforts of these enterprises for human resource (HR) development by organizing Executive Development Programmes (EDPs) for senior and middle level executives. The CPSEs design their in-house HR development programmes for upgrading the skills and knowledge of their executives. These initiatives are further supplemented by training programmes conducted by premier management / training institutes in the country in collaboration with the Department of Public Enterprises.

The EDPs are conducted for a duration of 2-5 days. While 23 such programmes were conducted during 2008-2009, 15 such programmes are planned for the year 2009-10. These programmes are organized in collaboration with institutes, such as, the Institute of Company Secretaries, the Institute of Cost and Works Accountants of India, National Institute of Micro Small and Medium Enterprises, the National Institute of Financial Management, Institute of Chartered Accountants of India, Indian Society for Training and Development, the Institute of Company Secretaries of India and the Indian Society of Health Administration, etc.

The subjects covered under these programmes include financial management, leadership challenge, effective marketing management, total quality management, information technology & e-commerce, management information systems, communication skills, corporate governance, corporate social responsibility, MOU principles & practices, project management, capital market reform & risk management, negotiation strategies & skills, health and stress management, industrial relations & labour issues, international taxation/ international finance, accounting standards, project planning and monitoring, etc.

Secretary, DPE is a member on the Board of Governors of IIM(Kolkata) and the Institute of Public Enterprise(Hyderabad). Secretary, DPE is also a member of the Executive Board of the Standing Conference of Public Enterprises (SCOPE), New Delhi.

Furthermore, India is a founder member of the International Centre for Promotion of Enterprises (ICPE), Ljubljana, Slovenia which is an inter-governmental organization. India has doubled its annual contribution to ICPE from the year 2007-2008. Senior and middle executives from CPSEs have been going to ICPE for different training programmes. Currently, India is the President of ICPE Council. ICPE also conducts a full year MBA Course.

6.6 Voluntary Retirement Scheme (VRS)

As a result of the ongoing restructuring in the sick and loss making industries CPSEs, several policy reforms have been initiated by the Government. Right sizing of manpower is one of the measures adopted. Consequently, the Voluntary Retirement Scheme (VRS), was announced in October, 1988. It was further liberalized and a comprehensive package was notified by the Department of Public Enterprises (Government of India) in May, 2000.

In view of the difficulties faced by the CPSEs where the wage revision of 1992 or 1997 (as the case may be) could not be effective, the VRS was liberalized through subsequent notification of November, 2001. This notification, inter-alia provides for 100% additional compensation for the employees where wage revision of 1992 could not be made effective. Similarly, 50% additional compensation was allowed for employees where wage revision of 1997 could not be made effective. The ex-gratia payment under VRS to employees following CDA pattern at 1986 scales of pay has been enhanced by 50% w.e.f. 26.10.2004. These increases in VRS compensation are to be computed based on the existing pay of employees.

Since the introduction of VRS in October 1988 to March 2009, approximately 6.10 lakh employees have been released under this scheme.

6.6.1 VRS in CPSEs that can support the scheme on their own

Enterprises, which are financially sound and can sustain VRS on their own, can frame their own schemes of VRS and make it attractive enough for employees to opt for it. They may offer as compensation upto 60 days salary (only Basic Pay + DA) for every completed year of service. However, such compensation will not exceed the salary for the balance period of service left.

6.6.2 VRS in marginally profit or loss making/sick/unviable CPSEs

Marginally profit /loss making CPSEs as well as sick and unviable units may adopt :

- i. either the Gujarat Model, under which the compensation is computed by allowing 35 days salary for every completed year of service and 25 days for each year of the balance service left until superannuation subject to conditions that the compensation shall not exceed the sum of salary for the balance period left for superannuation, or
- ii. The VRS package of Department of Heavy Industry (DHI) model, under which ex-gratia payment equivalent to 45 days emoluments (Pay + DA) for each completed year of service or the total emoluments for the balance period of service, whichever is less, is applicable. The employees who have completed not less than 30 years of service will be eligible for a maximum of 60 (sixty) months salary/wage as compensation and this will be subject to the amount not exceeding the salary/wage for the balance period of service left.

6.7 Scheme of Counselling, Retraining and Redeployment (CRR)

Restructuring of enterprises is a global phenomenon, particularly in the context of liberalized economy. There has been thrust on restructuring the CPSEs, both at macro as well as micro level. In the process, rationalization of manpower has also become a necessity. But this affects in some cases the interest of the workers. As such, the policy of the Government has been to implement reforms with a humane face and provide adequate safety net for the affected workers.

Considering the emerging need to have safety net, Government established the National Renewal Fund (NRF) in February, 1992 broadly to cover the expenses of VRS and to provide retraining to workers in the organized sector. In the wake of on going restructuring exercises in the central enterprises, focus was given on the need of CPSEs. The NRF was abolished in February, 2000. The retraining activity was administered earlier by Department of Industrial Policy & Promotion until 31st March, 2001. The

scheme for Counselling, Retraining and Redeployment (CRR) of rationalized employees of CPSEs is under implementation since 2001-02.

The scheme for Counselling, Retraining and Redeployment (CRR) inter-alia aims :

- to provide opportunity for self-employment.
- to reorient rationalized employees through short duration programmes.
- to equip them for new avocations.
- to engage them in income generating self-employment.
- to help them rejoin the productive process.

The main elements of the CRR programme are Counselling, Retraining and Redeployment. Besides, a new element of sensitization programme has also been included under CRR programme.

Counselling helps the rationalized employees to absorb the trauma of leaving the organization, to properly manage their funds including compensation and to motivate them to face the challenges and to re-join the productive process. Similarly, retraining strengthens their skill/expertise. Selected training institutes impart need-based training of 30 days / 45 days / 60 days modules. The faculty support is both internal and external, and the approach is to provide classroom lectures as well as field experience. In the process, trainees interact with experts from various fields and are being helped in preparation/finalization of project reports. The retraining should lead to redeployment mostly through self-employment. In the present scheme, the objective is to maximize the rate of self-employment. The Nodal Agencies, therefore, provide need-based support, linkage with credit institutions and continuously follow up with the retrained personnel.

In order to further broad base the coverage and re-employability, certain modifications have been brought out in the CRR scheme. Modified scheme is being implemented from 2007-08.

For monitoring the CRR programme, the in-built mechanism involves field visits and inspections by the concerned officers of DPE. Coordination Committees at local level have also been formed. The Scheme also provides for inter-ministerial Review

Committee under Secretary(PE) with members from selected concerned Governments/agencies/CPSEs.

The Nodal Training Agencies are required to counsel VRS optees, impart training and reorientation programme, develop curriculum /materials, prepare feasibility report market survey, post training follow up, interface with credit institutions, support in self employment, regular liaison with CPSEs, convening meeting of Coordination Committee etc.

CPSEs are the key to the success of the scheme. They are supposed to extend all possible support for the welfare of the separated employees by clearing their compensation/dues before release. Long association with employees puts CPSEs in a better position to identify their retraining needs.

A Plan Fund of Rs. 8 crore was allocated initially during 2001-02, which was enhanced to Rs. 10 crore during 2002-03 and 2003-04. The plan fund substantially increased to Rs. 30 crore during 2004-05 and 2005-06 and further enhanced to Rs. 31.50 crore during 2006-07. During 2007-08, Rs. 10.00 crore was allocated and during 2008-09, plan allocation was Rs. 8.70 crores for implementation of CRR scheme. In 2008-09, 19 nodal agencies were operational with 46 Employees Assistance Centres (EACs). Year wise number of persons trained under the scheme is shown as under :

Year	No. of persons trained
2001-02	8064
2002-03	12066
2003-04	12134
2004-05	28003
2005-06	32158
2006-07	34398
2007-08	9728
2008-09	9772
Total	146323

A list of operating nodal agencies in 2008-09 is given at Annexure 4.1.

6.8. Employment under Reserved Categories

The Personnel and Recruitment Policies in Central Public Sector Enterprises (CPSEs) are formulated by the management of respective CPSEs. However, on matters of general importance, policy

guidelines are issued by the Government of India. These policy guidelines are to be kept in view by the CPSEs while framing their individual corporate Personnel & Recruitment policies.

Besides the formal Presidential Directives issued to CPSEs by the concerned administrative Ministries to ensure reservation in regard to employment for Scheduled Castes(SCs), Scheduled Tribes(STs) and Other Backward Classes (OBCs) on the same lines as applicable to the Central Government Ministries/ Departments, the Department of Public Enterprises (DPE) also keeps a watch on the reservation policies in recruitment through calling for annual reports from the CPSEs, and through taking necessary follow-up action after scrutinizing these reports. However, in regard to details of implementation, the CPSEs generally follow the instructions from the Department of Personnel & Training, Government of India.

A comprehensive Presidential Directive incorporating all important instructions on reservation for SCs and STs, was issued on 25th April, 1991 to all the administrative Ministries/Departments concerned for formal issuance to the CPSEs. Subsequently, changes and modifications have been also circulated to CPSEs through their administrative Ministries/ Departments for information and compliance.

Based on the recommendation of the Second Backward Classes Commission (Mandal Commission) and in accordance with the Supreme Court Judgement in the Indira Sawhney case, instructions were issued for providing reservation of 27% of vacancies in favour of Other Backward Classes (OBCs) in Civil Posts and Services under the Government of India. The Department of Personnel & Training (DOPT) who formulate the policy in respect of reservation in services have been issuing instructions from time to time on various aspects of reservation in favour of OBCs. Reservation for OBCs was made effective w.e.f. 8.9.1993. The DPE, in turn, have been extending these instructions to CPSEs through their administrative Ministries for compliance. A comprehensive Presidential Directive incorporating all instructions was prepared by the DPE and issued to all administrative Ministries vide DPE's OM dated

27th July, 1995 for formal issuance to the CPSEs under their control (under the relevant Articles of Association/Section of the relevant Act).

While the administrative Ministries/ Departments concerned have been made formally responsible for implementation of these Directives, the DPE also takes follow-up action on the recommendations made by both the Parliamentary Committee on Welfare of SCs & STs and the National Commission for SCs/STs/OBCs. The CPSEs have been advised by DPE to make vigorous efforts to wipe out the backlog vacancies so as to improve the representation of SCs/STs/OBCs in the services, particularly in Group 'A' & 'B' posts. CPSEs have also been advised to invariably associate an officer of appropriate level belonging to SC/ST with their Departmental Promotion Committee/Selection Board.

The present quota for reservation for candidates belonging to SCs, STs and OBCs (where recruitment is on all-India basis through open competition) as well as other categories of persons entitled to reservation of vacancies is indicated in Table 6.3 below :

Table 6.2
Quota for Reservation

Category	Group 'A' & 'B'	Group 'C'	Group 'D'
Scheduled Castes	15%	15%	15%
Scheduled Tribes	7.5%	7.5%	7.5%
Other Backward Classes	27%	27%	27%
Physically Handicapped Persons	3%	3%	3%
Ex-servicemen & Dependents of those killed in action	–	14.5%	24.5%

Table 6.3 below sums up the position regarding representation of SCs, STs and OBCs in CPSEs as on 1.1.1971 (the earliest data available) and the comparative positions as on the first day of 1980, 2008 and 2009.

Table 6.3
Representation of SCs/ STs/OBCs in CPSEs

Group	Total No. of employees	SCs No.	Representation of SCs/STs/OBCs				
(1)	(2)	(3)	%age	STs No.	%age	OBCs	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
I. As on 1.1.1971 (based on information furnished by 85 enterprises)							
Group 'A'	31,311	163	0.52	53	0.17	–	
Group 'B'	35,751	549	1.54	57	0.16	–	
Group 'C'	3,51,347	19,302	5.59	4,519	1.29	–	
Group 'D'	1,29,220	20,626	15.96	7,680	5.94	–	
(Excluding Safai Karamcharis)							
Total	5,47,629	40,640	7.42	12,309	2.25	–	
Group 'D'	5,551	4,547	81.75	77	1.39	–	
(Safai Karamcharis)							
Grand Total	5,53,180	45,187	8.17	12,386	2.24	–	
II. As on 1.1.1980 (based on information furnished by 177 enterprises)							
Group 'A'	93,984	2,726	2.90	623	0.66	–	
Group 'B'	97,756	5,003	5.12	1,329	1.36	–	
Group 'C'	12,74,581	2,30,505	18.08	98,329	7.71	–	
Group 'D'	3,53,981	79,167	22.36	38,083	10.76	–	
(Excluding Safai Karamcharis)							
Total	18,20,302	3,17,401	17.44	1,38,364	7.60	–	
Group 'D'	36,030	23,309	64.69	1,492	4.14	–	
(Safai Karamcharis)							
Grand Total	18,56,332	3,40,710	18.35	1,39,856	7.53	–	
III. As on 1.1.2008 (based on information furnished by 206 enterprises)							
Group 'A'		196116	27353	13.94	9435	4.81	15192
Group 'B'		218599	30597	13.99	12730	5.82	19369
Group 'C'		836590	164411	19.65	72219	8.63	128660
Group 'D' (Excluding Safai karamcharis)		276445	57987	20.97	34409	12.44	50691
Total		1527750	280348	18.35	128793	8.43	213912
Group 'D'		13012	9864	75.80	397	3.05	520
(Safai Karamcharis)							
Grand Total		1540762	290212	18.83	129190	8.38	214432
IV. As on 1.1.2009 (based on information furnished by 195 enterprises)							
Group 'A'		186056	26442	14.21	9302	4.99	16261
Group 'B'		206836	29132	14.08	11946	5.77	18402
Group 'C'		777203	155563	20.01	66725	8.58	101834
Group 'D'		249587	52997	21.23	29592	11.85	41313
Total		1419682	264134	69.53	117565	31.19	177810
Group 'D' (Safai Karamcharis)		16945	9263	54.66	1800	10.62	988
Grand Total		1436627	273397	19.03	119365	8.30	178798

There has been improvement in the representation of both SCs and STs in Group 'A' and Group 'B' posts over the years (Table-6.2). The representation of SCs and STs in Group 'A' posts has been rising steadily which increased from 2.90% and 0.66% as on 1.1.1980 to 14.21% and 4.99% as on 1.1.2009 respectively. In regard to Group 'B' posts, similarly, the representation of SCs and STs has risen from 5.12% and 1.36% as on 1.1.1980 to 14.08% and 5.77% respectively as on 1.1.2009. Though the overall percentage of representation of SC/ST in services is adequate, the representation in Group 'A' and Group 'B' is not yet satisfactory. This is partly due to the private sector companies (accounting for a significant percentage of total employment in the CPSEs), that were taken over by the Government and did not have any scheme of reservation for SCs/STs till these were nationalized. The shortfall in the representation of SCs and STs in Group 'A' and Group 'B' posts in CPSEs has been also on account of non-availability of suitable Scheduled Castes and Scheduled Tribes candidates in various technical disciplines.

The need to ensure timely filling up of reserved posts and filling up the backlog has been stressed in various instructions issued by the DPE from time to time. All administrative Ministries/Departments have been requested to advise the CPSEs under their administrative control to take effective steps to fill up the unfilled reserved posts in Direct Recruitment as well as in promotion in accordance with the existing instructions. The Government has issued necessary

Annexure – 6.1

List of nodal agencies operational in 2008-09

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Academy Suburbia, Kolkata 2. ASSOCHAM, New Delhi 3. Association of Lady Entrepreneurship of Andhra Pradesh, Hyderabad 4. Central Institute of Plastics Engineering & Technology(CIPET), Amritsar 5. CIPET, Bhubaneswar 6. CIPET, Chennai 7. CIPET, Guwahati 8. CIPET, Panipat 9. Electronics Service & Training Centre, Ramnagar 10. Indian Council of Small Industry, Kolkata | <ol style="list-style-type: none"> 11. Institute of Entrepreneurship Development, Patna 12. Institute of labour Development, Jaipur 13. Kalinga Centre of Social Development, Bhubaneswar 14. Madhya Pradesh Consultancy Organisation, (MPCON), Bhopal 15. MITCON Consultancy Services Ltd., Pune 16. NorthIndiaTechnicalConsultancyOrganisation, Chandigarh 17. National Institute for Micro, Small and medium Enterprises(NIMSEM), Hyderabad 18. National School of Computer Education, Kolkata 19. UP Industrial Consultants Ltd. (UPICO), Kanpur |
|--|---|

instructions to launch a Special Recruitment Drive to fill up the backlog of reserved vacancies for SCs, STs and OBCs in CPSEs. The Special Recruitment Drive will continue till all the backlog vacancies are filled.

The DPE has extended the scheme for reservation of ex-servicemen to the CPSEs through the administrative Ministries/ Departments. Instructions streamlining the procedure for recruitment of ex-servicemen have been furthermore issued to augment the in-take in the various services of CPSEs. Such CPSEs, which are in a position to offer agencies/dealerships, have been advised to reserve quota in such agencies/dealership for allotment to ex-servicemen.

The DPE has also issued the Presidential Directive on 22.4.1991 to all the administrative Ministries/Departments concerned with CPSEs for employment of physically handicapped persons in CPSEs incorporating all instructions issued on the subject. With the enactment of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, the reservation to physically handicapped persons stood extended to identified Group 'A' and 'B' posts filled through Direct Recruitment. As per the Act, not less than 3% shall be reserved for Persons with Disabilities of which 1% each shall be reserved for persons suffering from (i) blindness or low vision (ii) hearing impairment and (iii) locomotor disability or cerebral palsy. All CPSEs have been advised accordingly to comply with the provisions of the Act.

**Statement Showing Total Employees, Salaries, Wages and Other Benefits Received By The Employees of
Public Sector Undertaking**

(Rs. In. Crore)

SI No.	Enterprise Group	Number Of Employees		Salaries And Wages and Other Benefits Including Bonus	
		2008-09	2007-08	2008-09	2007-08
1	AGRO BASED INDUSTRIES	4200	4226	107.38	74.76
2	COAL & LIGNITE	427354	441328	19310.50	13319.38
3	CRUDE OIL	42070	41570	1640.10	1925.49
4	OTHER MINERALS & METALS	35585	35331	2071.48	1598.80
5	STEEL	141893	148727	9740.33	9118.11
6	PETROLEUM (REFINERY & MARKETING)	66503	65780	9679.09	5994.13
7	FERTILIZERS	14508	15278	935.20	722.19
8	CHEMICALS & PHARMACEUTICALS	7628	7342	289.14	236.64
9	HEAVY ENGINEERING	53063	51334	3241.50	2775.16
10	MEDIUM & LIGHT ENGINEERING	64796	67007	2297.60	2080.69
11	TRANSPORTATION EQUIPMENT	68340	68852	3415.70	2929.21
12	CONSUMER GOODS	27890	27890	936.37	933.89
13	TEXTILES	15185	17240	284.05	324.06
14	GENERATION	55998	56654	3918.74	2786.53
15	TRANSMISSION	8214	7645	667.15	537.32
16	TRADING & MARKETING	50263	53237	2349.31	1812.58
17	TRANSPORT SERVICES	62014	61598	5722.88	4652.60
18	CONTRACT & CONSTRUCTION SERVICES	16595	16515	651.54	419.55
19	INDUSTRIAL DEVELOPMENT & TECH. CONSULTANCY SERVICES	15282	13643	1377.20	1020.09
20	TOURIST SERVICES	7559	4885	284.44	256.93
21	FINANCIAL SERVICES	3208	3287	288.99	312.57
22	TELECOMMUNICATION SERVICES	346377	355850	13526.46	10468.85
23	ENTERPRISES UNDER CONSTRUCTION	492	410	0.00	0.00
GRAND TOTAL		1,535,017.0	1,565,629.0	82,735.15	64,299.53

Statement Showing Employment, Gross Block, Cost Of Production and Labour Content in Some Of The Commodity Groups During 2008-09							
SI No.	Commodity Group	Number Of Employees	Gross Block (Rs In Crore)	Gross Block (Per Employee) (Rs In Thousand)	Cost Of Production (Rs In Crore)	Labour Content (Rs. In Crore)	Labour Content as % of Cost Of Production
1	AGRO BASED INDUSTRIES	4200	105.63	251.50	499.44	107.38	21.50
2	COAL & LIGNITE	427354	44,248.45	1,035.41	40,378.07	19,310.50	47.82
3	CRUDE OIL	42070	156,251.3	37,140.80	53,686.43	1,640.10	3.05
4	OTHER MINERALS & METALS	35585	15,882.94	4,463.38	9,728.90	2,071.48	21.29
5	STEEL	141893	42,184.26	2,972.96	48,571.45	9,740.33	20.05
6	PETROLEUM (REFINERY & MARKETING)	66503	138,397.9	20,810.78	658,482.3	9,679.09	1.47
7	FERTILIZERS	14508	10,575.04	7,289.11	18,156.62	935.20	5.15
8	CHEMICALS & PHARMACEUTICALS	7628	1,432.92	1,878.50	2,110.96	289.14	13.70
9	HEAVY ENGINEERING	53063	5,875.50	1,107.27	25,119.60	3,241.50	12.90
10	MEDIUM & LIGHT ENGINEERING	64796	7,854.09	1,212.13	13,232.39	2,297.60	17.36
11	TRANSPORTATION EQUIPMENT	68340	7,697.49	1,126.35	20,094.80	3,415.70	17.00
12	CONSUMER GOODS	27890	4,964.22	1,779.93	4,810.78	936.37	19.46
13	TEXTILES	15185	952.38	627.18	1,340.73	284.05	21.19
14	GENERATION	55998	129,028.7	23,041.67	44,100.42	3,918.74	8.89
15	TRANSMISSION	8214	40,320.68	49,087.75	4,779.57	667.15	13.96
16	TRADING & MARKETING	50263	3,128.92	622.51	157,940.2	2,349.31	1.49
17	TRANSPORT SERVICES	62014	50,113.08	8,080.93	32,856.30	5,722.88	17.42
18	CONTRACT & CONSTRUCTION SERVICES	16595	4,698.32	2,831.17	9,724.70	651.54	6.70
19	INDUSTRIAL DEVELOPMENT & TECH. CONSULTANCY SERVICES	15282	849.34	555.78	5,303.81	1,377.20	25.97
20	TOURIST SERVICES	7559	296.21	391.86	999.13	284.44	28.47
21	FINANCIAL SERVICES	3208	606.55	1,890.74	13,172.63	288.99	2.19
22	TELECOMMUNICATION SERVICES	346377	149,356.2	4,311.96	39,624.54	13,526.46	34.14
23	ENTERPRISES UNDER CONSTRUCTION	492	319.32	6,490.24	0.00	0.00	0.00
GRAND TOTAL		1,535,017.0	815,139.63	5,310.30	1,204,713.9	82,735.15	6.87

**Per Capita Emoluments of CPSEs in relation to increase in Average All-India
Consumer Price Index (1960=100)**

Year	Employee (in lakh) (Excl. casual & Daily rated workers)	Emoluments (Rs. in crore)	Per Capita Emoluments (Rupees)	%age increase over 1971-72 per capita	Average Index	%age increase over 1971-72
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1971-72	7.01	415	5920	—	192	—
1972-73	9.32	541	5805	1.94	207	7.81
1973-74	13.44	749	5573	5.86	250	30.21
1974-75	14.32	1060	7402	25.03	317	65.10
1975-76	15.04	1352	8983	51.74	313	63.02
1976-77	15.75	1408	8940	51.01	301	56.77
1977-78	16.38	1646	10048	69.73	324	68.75
1978-79	17.03	1908	11210	89.36	331	72.40
1979-80	17.75	2213	12468	110.61	360	87.50
1980-81	18.39	2619	14239	140.52	401	108.85
1981-82	19.39	3133	16158	172.94	451	134.90
1982-83	20.24	3649	18029	204.54	486	153.13
1983-84	20.72	4485	21549	264.00	547	184.92
1984-85	21.07	5126	24328	310.95	582	203.13
1985-86	21.54	5576	25887	337.28	620	222.92
1986-87	22.11	6371	28820	386.82	674	251.04
1987-88	22.14	7193	32537	449.61	736	283.23
1988-89	22.09	8683	39415	565.79	803	318.23
1989-90	22.36	9742	43665	637.58	855	345.31
1990-91	22.19	10912	49179	730.73	951	395.31
1991-92	21.79	12311	56508	854.52	1079	461.98
1992-93	21.52	13983	64983	997.69	1185	517.1
1993-94	20.70	14913	72043	1116.94	1272	562.50
1994-95	20.62	17015	82517	1293.87	1402	630.21
1995-96	20.52	21931	106876	1705.34	1542	703.13
1996-97	20.08	22219	110662	1769.29	1687	778.65
1997-98	19.52	25385	129582	2088.89	1803	839.06
1998-99	19.00	26254	138179	2234.10	2039	961.98
1999-00	18.06	30402	168339	2743.56	2109	998.44
2000-01	17.40	38223	219672	3610.67	2190	1440.62
2001-02	19.92	38556	193554	3169.49	2284	1089.58
2002-03	18.66	42169	225986	3717.33	2375	1136.98
2003-04	17.62	43919	248481	4097.31	2467	1184.89
2004-05	17.00	48629	286053	4731.97	2561	1236.98
2005-06	16.49	46841	284057	4698.26	2674	1292.71
2006-07	16.14	52586	325869	5404.54	2853	1385.94
2007-08	15.66	64300	410698	6837.42	3030	1478.12
2008-09	15.35	82735	538985	9004.48	3306	1621.88

Cognate Group-Wise Women Employment During 2008-09

(Employees in no.)

SI No.	Commodity Group	Managerial and Supervisory	Workers	Total
1	AGRO BASED INDUSTRIES	87	184	271
2	COAL & LIGNITE	2,591	27,681	30,272
3	CRUDE OIL	1,419	825	2,244
4	OTHER MINERALS & METALS	342	1,906	2,248
5	STEEL	1,539	6,263	7,802
6	PETROLEUM (REFINERY & MARKETING)	2,957	1,932	4,889
7	FERTILIZERS	323	407	730
8	CHEMICALS & PHARMACEUTICALS	184	384	568
9	HEAVY ENGINEERING	1,382	1,292	2,674
10	MEDIUM & LIGHT ENGINEERING	2,109	9,760	11,869
11	TRANSPORTATION EQUIPMENT	1,227	2,249	3,476
12	CONSUMER GOODS	541	686	1,227
13	TEXTILES	102	737	839
14	GENERATION	1,511	2,612	4,123
15	TRANSMISSION	310	151	461
16	TRADING & MARKETING	1,167	805	1,972
17	TRANSPORT SERVICES	495	165	660
18	CONTRACT & CONSTRUCTION SERVICES	471	289	760
19	INDUSTRIAL DEVELOPMENT & TECH.CONULTANCY	834	379	1,213
20	TOURIST SERVICES	155	256	411
21	FINANCIAL SERVICES	481	255	736
22	TELECOMMUNICATION SERVICES	8,096	41,816	49,912
23	ENTERPRISES UNDER CONSTRUCTION	41	26	67
GRAND TOTAL		28,364	101,060	129,424

Under the Articles of Association, the Board of Directors of CPSEs enjoy certain amount of financial powers and autonomy in respect of recruitment, promotion and other service conditions of below Board level employees. The Board of Directors of a CPSE exercises the delegated powers subject to broad policy guidelines issued by Government from time to time. The Government has granted enhanced powers to the Boards of Navratna, Miniratna and other profit making enterprises.

Keeping in view the pledge made in the National Common Minimum Programme (NCMP) that full managerial and commercial autonomy will be devolved to successful profit making companies operating in a competitive environment, the Government reviewed the powers delegated to the Board of Directors of Navratna, Miniratna and other profit making CPSEs and substantially enhanced the delegated powers in August 2005.

7.1 Navratna scheme

Under this scheme, the Government has delegated enhanced powers to CPSEs having comparative advantage and the potential to become global players. Presently, there are 18 Navratna CPSEs as under:

- (i) Bharat Electronics Limited
- (ii) Bharat Heavy Electricals Limited
- (iii) Bharat Petroleum Corporation Limited
- (iv) Coal India Limited
- (v) GAIL (India) Limited
- (vi) Hindustan Aeronautics Limited
- (vii) Hindustan Petroleum Corporation Limited
- (viii) Indian Oil Corporation Limited
- (ix) Mahanagar Telephone Nigam Limited
- (x) National Aluminium Company Limited
- (xi) NMDC Limited
- (xii) NTPC Limited
- (xiii) Oil & Natural Gas Corporation Limited
- (xiv) Power Finance Corporation Limited

- (xv) Power Grid Corporation of India Limited
- (xvi) Rural Electrification Corporation Limited
- (xvii) Shipping Corporation of India Limited
- (xviii) Steel Authority of India Limited

The powers presently delegated to the Boards of Navratna CPSEs are as under :

(i) Capital Expenditure

The Navratna CPSEs have the powers to incur capital expenditure on purchase of new items or for replacement, without any monetary ceiling.

(ii) Technology Joint Ventures and Strategic Alliances

The Navratna CPSEs have the powers to enter into technology joint ventures or strategic alliances and obtain by purchase or other arrangements, technology and know-how.

(iii) Organizational Restructuring

The Navratna CPSEs have the powers to effect organizational restructuring including establishment of profit centers, opening of offices in India and abroad, creating new activity centers, etc.

(iv) Human Resources Management

The Navratna CPSEs have been empowered to create and wind up all posts up to E-6 level and make all appointments up to this level. The Boards of these CPSEs have further been empowered to effect internal transfers and re-designation of posts. The Board of Directors of Navratna CPSEs have the power to further delegate the powers relating to Human Resource Management (appointments, transfer, posting, etc.) of below Board level executives to sub-committees of the Board or to executives of the CPSE, as may be decided by the Board of the CPSE.

(v) Resource Mobilization

These CPSEs have been empowered to raise debt from the domestic capital markets and for borrowings from international market, subject to condition that approval of RBI/Department of Economic Affairs,

as may be required, should be obtained through the administrative Ministry.

(vi) *Joint ventures and Subsidiaries*

The Navratna CPSEs have been delegated powers to establish financial joint ventures and wholly owned subsidiaries in India or abroad with the stipulation that the equity investment of the CPSE should be limited to the following amounts :

- i. Rs. 1000 crore in any one project,
 - ii. 15% of the net worth of the CPSE in one project,
 - iii. 30% of the net worth of the CPSE in all joint ventures/ subsidiaries put together.
- vii. Mergers & Acquisitions (M&A)

The Navratna CPSEs have been delegated powers for Mergers and Acquisitions subject to the conditions that (i) it should be as per the growth plan and in the core area of functioning of the CPSE, (ii) conditions/limits would be as in the case of establishing joint ventures/subsidiaries, and (iii) the Cabinet Committee on Economic Affairs would be kept informed in case of investments abroad. Further, the powers relating to Mergers and Acquisitions(M&A) are to be exercised in such a manner that it should not lead to any change in the public sector character of the concerned CPSE.

(viii) *Creation/Disinvestment in subsidiaries*

The Navratna CPSEs have powers to transfer assets, float fresh equity and divest shareholding in subsidiaries subject to the condition that the delegation will be in respect of subsidiaries set up by the holding company under the powers delegated to the Navratna CPSEs and further to the proviso that the public sector character of the concerned CPSE (including subsidiary) would not be changed without prior approval of the Government and such Navratna CPSEs will be required to seek Government approval before exiting from their subsidiaries.

(ix) *Tours abroad of functional Directors*

The Chief Executive of Navratna CPSEs have been delegated powers to approve business tours abroad of functional directors up to 5 days' duration (other than study tours, seminars, etc.) in emergency under intimation to the Secretary of the administrative Ministry.

The above mentioned delegation of powers is subject to the following conditions and guidelines :

- a. The proposals must be presented to the Board of Directors in writing and reasonably well in advance, with an analysis of relevant factors and quantification of the anticipated results and benefits. Risk factors, if any, must be clearly brought out.
- b. The Government Directors, the Financial Directors and the concerned Functional Director(s) must be present when major decisions are taken, especially when they pertain to investments, expenditure or organizational/ capital restructuring.
- c. The decisions on such proposals should preferably, be unanimous.
- d. In the event of any decision on important matters not being unanimous, a majority decision may be taken, but at least two thirds of the Directors should be present, including those mentioned above, when such a decision is taken. The objections, dissents, the reasons for over-ruling them and those for taking the decision should be recorded in writing and minuted.
- e. No financial support or contingent liability on the part of the Government should be involved.
- f. These CPSEs will establish transparent and effective systems of internal monitoring, including the establishment of an Audit Committee of the Board with membership of non-official Directors.
- g. All the proposals, where they pertain to capital expenditure, investment or other matters involving substantial financial or managerial commitments or where they would have a long term impact on the structure and functioning of the CPSE, should be prepared by or with the assistance of professionals and experts and should be appraised, in suitable cases, by financial institutions or reputed professional organizations with expertise in the areas. The financial appraisal should

also preferably be backed by involvement of the appraising institutions through loans or equity participation.

- h. The exercise of authority to enter into technology joint ventures and strategic alliances shall be in accordance with the Government guidelines as may be issued from time to time.
- i. The Boards of these CPSEs should be restructured by inducting at least four non-official Directors as the first step before the exercise of the enhanced delegation of authority.
- j. These public sector enterprises shall not depend upon budgetary support or Government guarantees. The resources for implementing their programmes should come from their internal resources or through other sources, including the capital markets. However, wherever Government guarantee is required under the standard stipulations of external donor agencies, the same may be obtained from the Ministry of Finance through the administrative Ministry. Such Government guarantee shall not affect the Navratna status. Further, budgetary support to implement Government sponsored projects of national interest and Government sponsored Research & Development projects will not disqualify CPSEs from retaining their Navratna status. However, for such projects, investment decisions will be taken by the Government and not by the CPSE concerned

7.2 Miniratna scheme

In October 1997, the Government had also decided to grant enhanced autonomy and delegation of financial powers to some other profit making companies subject to certain eligibility conditions and guidelines to make them efficient and competitive. These companies, called Miniratnas, belong to two categories, namely, Category- I and Category-II. The eligibility conditions and criteria are:

- (i) Category-I CPSEs should have made profit in the last three years continuously, the pre-tax profit should have been Rs.30 crores or more in at least one of the three years and should have a positive net worth.

- (ii) Category-II CPSEs should have made profit for the last three years continuously and should have a positive net worth.
- (iii) These CPSEs shall be eligible for the enhanced delegated powers provided they have not defaulted in the repayment of loans/ interest payment on any loans due to the Government.
- (iv) These public sector enterprises shall not depend upon budgetary support or Government guarantees.
- (v) The Boards of these CPSEs should be restructured by inducting at least three non-official Directors as the first step before the exercise of enhanced delegation of authority.
- (vi) The administrative Ministry concerned shall decide whether a Public Sector Enterprise fulfilled the requirements of a Category-I/ Category-II company before the exercise of enhanced powers.

The delegation of decision-making authority available at present to the Boards of these Miniratna CPSEs is as follows:

(i) Capital Expenditure

- a. For CPSEs in category I: The power to incur capital expenditure on new projects, modernization, purchase of equipment, etc., without Government approval upto Rs. 500 crore or equal to net worth, whichever is less.
- b. For CPSEs in category II: The power to incur capital expenditure on new projects, modernization, purchase of equipment, etc., without Government approval upto Rs. 250 crore or equal to 50% of the Net worth, whichever is less.

(ii) Joint Ventures (JVs) and Subsidiaries

- a. Category I CPSEs: The power to establish joint ventures and subsidiaries in India with the stipulation that the equity investment of the CPSE in any one project should be limited to 15% of the networth of the CPSE or Rs. 500 crore, whichever is less. The overall ceiling on such investment in all projects put together is 30% of the networth of the CPSE.

- b. Category II CPSEs: The power to establish joint ventures and subsidiaries in India with the stipulation that the equity investment of the CPSE in any one project should be 15% of the networth of the CPSE or Rs. 250 crore, whichever is less. The overall ceiling on such investment in all projects put together is 30% of the networth of the CPSE.

(iii) Mergers and Acquisitions(M&A)

The Board of Directors of these CPSEs have the powers for Mergers and Acquisitions (M&A), subject to the conditions that (a) it should be as per the growth plan and in the core area of functioning of the CPSE, (b) conditions/limits would be as in the case of establishing joint ventures/subsidiaries, and (c) the Cabinet Committee on Economic Affairs would be kept informed in case of investments abroad. Further, the powers relating to Mergers and Acquisitions(M&A) are to be exercised in such a manner that it should not lead to any change in the public sector character of the concerned CPSEs.

(iv) Scheme for HRD

To structure and implement schemes relating to personnel and human resource management, training, voluntary or compulsory retirement schemes, etc. The Board of Directors of these CPSEs have the power to further delegate the powers relating to Human Resource Management (viz., appointments, transfer, posting, etc.) of below Board level executives to sub-committees of the Board or to executives of the CPSE, as may be decided by the Board of the CPSE.

(v) Tour abroad of functional Directors

The Chief Executive of these CPSEs have the power to approve business tours abroad of functional directors up to 5 days' duration (other than study tours, seminars, etc.) in emergency, under intimation to the Secretary of the administrative Ministry.

(vi) Technology Joint Ventures and Strategic Alliances

The power to enter into technology joint ventures, strategic alliances and to obtain technology and know-how by purchase or other arrangements, subject to Government guidelines as may be issued from time to time.

(vii) Creation/Disinvestment in subsidiaries

To transfer assets, float fresh equity and divest shareholding in subsidiaries subject to the condition that the delegation will be in respect of subsidiaries set up by the holding company under the powers delegated to the Miniratna CPSEs and further to the proviso that the public sector character of the concerned CPSE (including subsidiary) would not be changed without prior approval of the Government, and such Miniratna CPSEs will be required to seek Government approval before exiting from their subsidiaries.

The above delegation of powers is subject to similar conditions as are applicable to Navratna CPSEs

7.3 Other profit making CPSEs

Those CPSEs which have earned profit in each of the 3 preceding accounting years and have a positive net worth are categorized as 'other profit making CPSEs'. These CPSEs have been delegated enhanced powers as under :

(i) Capital Expenditure

These CPSEs have the power to incur capital expenditure up to Rs. 150 crore or equal to 50% of the net worth, whichever is less. The above delegation is subject to the following conditions:

- a. inclusion of the project in the approved Five Year and Annual Plans and outlays provided for the same ;
- b. the required funds can be found from the Internal Resources (IR) of the company or from Extra Budgetary Resources (EBR), and the expenditure is incurred on schemes included in the capital budget approved by the Government.

(ii) Tours abroad of functional Directors

The Chief Executive of these CPSEs have the power to approve business tours abroad of functional directors up to 5 days' duration (other than study tours, seminars, etc.) in emergency, under intimation to the Secretary of the administrative Ministry. In all other cases including those of Chief Executive, tours abroad would continue to require the prior approval of the Minister of the Administrative Ministry/ Department.

8.1 Background

The Memorandum of Understanding (MoU) as applicable to public sector enterprises is a negotiated document between the government and the management of the enterprise specifying clearly the objectives of the agreement and the obligations of both the parties. It was first introduced in France in two phases, that is, as ‘*contracts de programme*’ in 1970 and as ‘*contracts d’ Enterprise*’ in 1979 consequent to the Simon Nora Committee Report (1967). The main purpose of the MoU system is to ensure a level playing field to the public sector enterprises vis-à-vis the private corporate sector.

MoU system in India was first introduced in 1986 as a result of the recommendations of the Arjun Sengupta Committee Report (1984). The Committee laid emphasis on medium term contract between the Government and the Central Public Sector Enterprises (CPSEs) and recommended a five-year agreement that may be reviewed annually. Moreover, since the CPSEs have been set up as part of the national/central plan, the Committee favoured MoUs especially in respect of CPSEs in the core sectors of steel, coal, power, petroleum, fertilizer and petro-chemicals.

8.1.1 *Autonomy and Accountability*

The ‘management’ of the enterprise is, nevertheless, made accountable to the government through promise for performance or ‘performance contract’. The government continues to have control over these enterprises through a priori supervision through ‘setting targets’ in the beginning of the year and through a posteriori ‘performance evaluation’ at the end of the year.

In order to grant autonomy to public sector enterprises vis-à-vis control of the government, the Arjun Sengupta Committee identified three areas of Government-PSE interaction, namely (a) price fixation, (b) investment planning and (c) financial management. In regard to price fixation the Committee observed that price control/ administered price/ retention price may be retained only in areas where the nature of product so justifies. It further stated that wherever CPSEs are

operating under competitive market conditions, the CPSEs should be left on their own to fix the price of their output. While fixing prices for products of CPSEs operating *under monopoly conditions*, these should be benchmarked with international prices. The gradual dismantling of Administered Price Mechanism (APM) since 1991 has increasingly helped these enterprises to fix the output prices on market principles.

In regard to autonomy for investment planning, greater powers were subsequently delegated to the Board of Directors as recommended by the Committee. The Board of Directors of MoU signing CPSEs can therefore sanction capital expenditure without the prior approval of the government, especially so if the required funds could be found from the internal resources of the enterprise. In regard to financial management especially with reference to ‘auditing’, the Arjun Sengupta Committee was of the view that subsequent to evolving of appropriate accounting standards by the Comptroller and Auditor General of India (CAG), supplementary audit by CAG for the non-core sector should be given up. In the case of the enterprises in the core sector, however, the Committee recommended that company audit by the CAG may continue.

The Committee further observed that Ministries should not interfere in areas of decision making which are within the delegated powers of CPSEs. Accordingly numerous ‘administrative controls’ emanating from different ‘government circulars’ issued over the years and pertaining to public sector enterprises were dispensed consequent to the review exercises undertaken in the Department of Public Enterprises in 1996 and in 2000.

8.2 MOU System ‘Process and Principles’

The process of finalizing the MoUs starts with the issue of detailed Guidelines by the Department of Public Enterprises (DPE) on the basis of which the CPSEs submit their draft MoU after getting them approved by the respective Boards and the Administrative Ministries. The draft MOUs indicate

the (five) performance targets on a five point scale for the ensuing financial year. These draft MoUs are then discussed, improved and finalized during the MoU negotiation meetings. The MoU negotiations are attended by the Chief Executives of the CPSEs, Senior Officers from the administrative Ministries and the representatives of the nodal Government agencies such as Planning Commission and Ministry of Finance. The Task Force on MoU set up by DPE, moreover, provides the oversight during the MoU negotiations.

8.2.1 Task Force and Syndicates

The MoU Task Force comprise former Civil Servants, CMDs of the Public Enterprise, financial and technical professionals, Chartered Accountants and academics. They are selected by DPE. Currently, there are 90 Task Force members who are divided into sector-wise Syndicate Group. Each Syndicate consist of 6-7 members. One of the members of the Syndicate acts as the Convener. The rich experience and knowledge of the TF members in different fields provides the necessary technical input and enables the Syndicate in fixing more realistic targets. The DPE issues the Minutes of MoU negotiation meetings to the CPSEs (and the Ministry/Department concerned) for finalizing the MoUs which are authenticated in the DPE to ensure that those are in accordance with the decisions on targets as agreed upon during the meeting. Subsequently, all MoUs have to be signed before 31st March for implementation during the succeeding financial year.

8.2.2 High Power Committee on MoU

The High Power Committee (HPC) on MoU is a Committee of Secretaries (COS) set up by the Government as the Apex Committee to assess the performance of MoU signing CPSEs with reference to the commitments made by them in the MOU and also to assess how far the Administrative Ministries/ Departments have been able to give the necessary support as committed by them in the MoU. HPC is headed by the Cabinet Secretary. Secretary, Department of Public Enterprises is the Member-Secretary of this committee. The other members

comprise, Finance Secretary, Secretary (Expenditure), Secretary (Planning Commission), Secretary(Statistics & Programme Implementation). Chairman Public Enterprises Selection Board, Chief Economic Advisor, Department of Economic Affairs and Chairman Tariff Commission. The Apex Committee of Secretaries on MoU has been from time to time giving directions in regard to the determination of the principles and parameters for evaluating the performance of CPSEs.

8.3 Aims and Objectives of MoU system in CPSEs

The aims and objectives of the MoU system are broadly the followings :

- a. To improve the performance of public sector enterprises by increasing autonomy of Management of the Company.
- b. To remove the fuzziness in goals and objectives of public sector enterprises.
- c. To evaluate the performance of management through objective criteria
- d. To provide incentive for better performance in future.

The incentives under the present system take two forms, namely ‘monetary’ and ‘non-monetary’ incentives. As per the Second Pay Revision Committee recommendations (for the executives of CPSEs) vide DPE OM No. 2(70)/08-DPE (WC)-GL-XV/08 dtd. 26.11.2008, the variable Performance Related Pay (PRP) would be payable in the case of profit making CPSEs at 100 % eligibility levels if the CPSE achieves the MoU rating as “Excellent”. If the CPSE’s MoU is rated as “Very Good”, the eligibility of PRP would be 80% of the basic pay. In respect of “Good” and “Fair” ratings, the eligibility levels would be 60% and 40% respectively. However, there will be no PRP irrespective of the profitability of CPSE, in case it is rated as “Poor”. (Moreover, 60% of the PRP will be given with the ceiling of 3 % of Profit Before tax (PBT) and 40 % of the PRP will come from 10% of incremental profit. Further, the PRP has been linked to the performance of the individual executives, which

will be based on a robust and transparent Performance Management System). The non-monetary incentives comprise the MoU Awards. These awards are also an expression of commitment of the policy makers to the MoU system. While excellent performing CPSEs are awarded with the MoU (Excellent) Awards with Trophies and Excellence Merit Certificates, the remaining excellent performing CPSEs are recognized with Excellence Merit Certificates.

8.4 MoU Targets and Performance Evaluation

Performance evaluation at the end of the year indicates the extent to which the mutually agreed Targets agreed upon at the beginning of the year were achieved by the enterprise.

8.4.1 MoU Targets

The exercise of fixing MoU targets involves the following steps:

- i. Preparation of MoU Guidelines, which are issued by DPE in the month of October/November.
- ii. Submission of draft MoU by CPSEs through Administrative Ministry on the basis of the MoU guidelines.
- iii. Examination of draft MoUs by the MoU Division and preparation of critiques to be circulated to the Task Force Members.
- iv. Fixing of dates and venue for MoU negotiation meetings that starts from January/February.
- v. Holding the MoU negotiation meetings to finalize the MoUs in the presence of the Task Force (January – March) each year.
- vi. Preparation and circulation of the Minutes of the MoU negotiation meetings to CPSEs and concerned administrative Ministry after approval of the Convener.
- vii. Submission of the revised MoU by CPSEs through administrative Ministries as per the Minutes.
- viii. Examination of revised MoUs for authentication by DPE.

- ix. All MoU has to be signed before 31st March of every year.

8.4.2 Evaluation methodology

The MoU system was revamped in 1989 and further refined in 2004. Under the current MoU Guidelines, equal weights (50% + 50%) are assigned to ‘financial’ and ‘non-financial’ parameters. These are done on the lines of ‘balanced score card’ approach of performance evaluation. The ‘financial’ parameters generally relate to profit related, size related and productivity related parameters. The ‘non-financial parameters’ are further sub-divided into ‘dynamic parameters’, ‘enterprise-specific parameters’ and ‘sector-specific parameters’. Examples of ‘dynamic’ parameters are project implementation, investment in R&D and extent of globalization etc. Similarly, while the ‘sector-specific’ parameters refer to macro-economic factors like change in demand and supply, price fluctuations, variation in interest rates etc, (that are, factors beyond the control of the management), the ‘enterprise-specific’ parameters relate to issues such as safety and pollution etc. Performance targets for MoUs are framed on a five point scale.

The ‘composite score’ is thus an index of the performance of the enterprises. The grading of the ‘composite score’ is done in the following manner :

MoU Composite Score	Grading
1.00-1.50	Excellent
1.51-2.50	Very Good
2.51-3.50	Good
3.51-4.50	Fair
4.51-5.0	Poor

8.5 Coverage of CPSEs under the MoU system

The MoU system that was started with four CPSEs signing MoU in the year 1986-87 increased its coverage to 144 CPSEs in the year 2008-09. The table below provides the coverage of CPSEs over the years under the MOU system.

Table 8.1
MoU signing CPSEs

Year	MOUs signed* (Nos.)	Year	MOUs signed* (Nos.)
1987-88	4	1998-99	108
1988-89	11	1999-2000	108
1989-90	18	2000-01	107
1990-91	23	2001-02	104
1991-92	72	2002-03	100
1992-93	98	2003-04	96
1993-94	101	2004-05	99
1994-95	100	2005-06	102
1995-96	104	2006-07	113
1996-97	110	2007-08	144
1997-98	108	2008-09	144
		2009-10	197

** Until 2008-09, only Independent/Holding Companies have been signing MoU with their respective Ministries. The Subsidiary Companies were to sign MoUs with their Holding Companies. However, from 2009-10, the Subsidiary Companies have also to sign MoUs directly with the respective Ministries.*

8.6 MoU ratings of CPSEs during the last five years

MoU rating of CPSEs during the last five years shown in the table below :

Table 8.2
MoU Ratings

Rating	(in nos.)				
	2003-04	2004-05	2005-06	2006-07	2007-08
Excellent	54	45	44	46	55
VeryGood	21	31	36	37	34
Good	10	12	14	13	15
Fair	11	10	08	06	08
Poor	00	01	00	00	00
Total	96	99	102	102	112

Today's competitive and challenging business environment demands continuous up-gradation and development of products, processes and services for sustained growth. Research and Development (R&D) contribute substantially towards achieving these goals as well as to cost-effectiveness and competitiveness in business. R&D also enables an enterprise to phase out products considering the product life cycle by introducing new designs, technologies, products and services. A number of CPSEs have in-house R&D facilities as well as tie-up with internationally recognized institutes and organizations involved in R&D. Increased use of information technology has, moreover, significantly improved the sophistication of these facilities. There is, also, greater awareness of Intellectual Property Rights (IPR) and 'patenting' of new knowledge gained and discoveries made in the process of R&D.

The National Research Development Corporation (NRDC), a CPSE, is actively engaged in promoting, developing and commercializing technologies, knowhow, patents and processes generated through national R&D institutions, thus helping individual enterprises and institutions acquire IPR/Patents for commercial use. The main thrust of NRDC has been towards closing the gaps in the innovation chain through which ideas and inventions get converted into marketable products/services. It also propagates inventions and innovations, enabling growth of indigenous technologies and providing commercial benefits to techno-entrepreneurs through IPR assistance. The CPSEs who are not in a position to have in-house facility, but need to have competitive edge in the market, can benefit through this route (NRDC) for acquiring new knowledge.

The CPSEs can also go for sponsored research through collaboration with Universities and reputed R&D institutions. Sponsored research is cost effective and is suited to CPSEs who cannot afford to incur expenditure on in-house research. Technological collaboration with leading companies of the world has been another approach adopted by CPSEs for upgrading their technological know-how. The CPSEs, during the past several years, have been focusing on

different areas of applied research for development of new products, process and systems and for quality upgradation and cost reduction.

The following paragraphs provide brief details of select R&D activities undertaken by the different CPSEs belonging to different cognate groups.

9.1 Power

9.1.1 NHPC Ltd.

The R&D initiatives includes Energy Audit of Power Stations, establishment of Computational Fluid Dynamics (CFD) software lab to analyze the flow pattern in the water conductor system (used to provide insight into any planned physical model), allowing designers to streamline testing program by reducing the number of options to be evaluated etc. Computational fluid analysis of Penstocks of Baira Siul & Loktak Power Stations is one of the MOU targets for the FY 2009-10. Based on the input data in respect of Baira Siul Power Station, a CFD model of penstock has been developed and the flow analysis is in process. NHPC is also an active participant under the Clean Development Mechanism (CDM) being promoted by the Government.

A. Clean Development Mechanism:

NHPC has actively considered the Clean Development Mechanism (CDM), which is one of the three flexibility mechanisms under the Kyoto Protocol (KP), 1997, for its hydro power projects. Two Projects namely Nimoo Bazgo (3 × 15 MW) Chutak (4 × 11 MW) have been taken up for CDM benefits and likely Annual Green House Gas emission reduction will be 180074 tCO₂ & 159889 tCO₂ on commissioning of these two projects. Other hydropower projects under construction and under different stages of clearances are being pursued for Carbon credits through CDM as well as VER (Voluntary Emission Reduction) route.

B. R&D Activities and Projects

- (i) 3.75 MW Durgaduani Mini Tidal Power Project
- (ii) National R&D Project -Development of Silt Erosion Resistant Material for Turbines of Hydro Generators

- (iii) Solar Power as an alternative source
- (iv) Ecological Study of Teesta River
- (v) Development of Geothermal Power

NHPC has been engaged as the nodal agency by Ministry of non-conventional Energy Sources (MNES) for development of Geothermal Power in India. Six promising geothermal sites have been identified for development and are at various stages of implementation.

9.1.2 NTPC Ltd. (NTPC)

NTPC established a R&D centre in 1980-81. A new R&D center was set up in Noida during 1993 at a cost of Rs.28 crore. R&D is one of the thrust areas of the company and has multi-pronged approach in this regard. While on one hand the company focused its attention to application oriented R&D to meet the immediate generic and specific needs of power stations spread over the country, it has also taken a long term approach of developing technologies through the mode of direct fundamental research coupled with technology oriented applied research in association with agencies like BARC, CPRI, IITs at Kharagpur, Delhi and Mumbai. In addition, NTPC R&D centre also plans to provide comprehensive range of high-end scientific services to stations to enable them to operate and maintain the plants at high performance levels including high availability & reliability. To carry out these in a structured manner Indian Institute of Science, Bangalore has been appointed as consultants for up-gradation of R&D center.

NTPC has also set up an Energy Technology Centre (ET Centre) with the mandate of becoming a world class research institute, for which a state-of-the-art complex is coming up on 75 acres of land in Greater Noida U.P. This will meet a long term need of such a research facility in the power sector in India. It will work in both fundamental and applied research with ultimate objective of developing new technologies both within and outside India. The Centre will develop technologies through collaborative research with the best of R&D and academic institutions in India. ET Centre has already networked with 8 research and academic institutes like National Chemical Laboratory, Pune, IITs at Mumbai and Kharagpur among others

for 12 research projects in the areas of efficiency and environment with respect to power generation.

NTPC has signed MOU with BARC, Mumbai and Heavy Water Board, Mumbai for developmental project and transfer of technology respectively.

9.1.3 Nuclear Power Corp. of India Ltd. (NPCIL)

Technology has been assimilated and absorbed with respect to VVER, FBRs and BWRs. R&D requirements are met through in-house efforts as well as with other organizations including DAE (Dept. of Atomic Energy) units and academic institutions in the country. Thrust areas for R & D are Nuclear Systems and Electronic Systems.

9.1.4 Sathuj Jal Vidyut Nigam Ltd. (SJVN)

In order to reduce silt erosion to underwater parts of turbines, several research projects been concluded in joint venture with research organizations have. Also, an in-house HVOF (High Velocity Oxy Fuel) robotic arm facility has been established to hard coat the underwater parts. Full fledged quality control department of the company carries out quality checks in civil engineering by all standard testing machines of cement aggregate, reinforcement, structural steel and concrete.

9.2 Chemical & Pharmaceutical

9.2.1 Bengal Chemicals and Pharmaceuticals Ltd. (BCPL)

All formulations are developed in-house in BCPL. Assistance is taken from Jadavpur University, Kolkata and Central Research Institute, Kasauli for development of production process, serum, vaccines, etc.

9.2.2 Hindustan Organic Chemicals Ltd. (HOCL)

R&D division has focused its activities on the development of eco-friendly catalyst and process improvements for the production of organic chemicals of interest to HOC. Company is also collaborating for making re-use of spent aniline and formaldehyde catalysts which will result in substantial savings and disposal of the hazardous wastes in an eco-friendly way. It has also developed a specific fuel for ISRO.

9.3 Consumer Goods

9.3.1 Artificial Limbs Manufacturing Corporation of India (ALIMCO)

The company pursued development of Modular Above Knee Prosthesis with Four Bar Linkage Knee Joint, Active Prosthetic Leg, New Child Size Tricycle and Multi Utility Battery Operated Tricycle.

9.3.2 Hindustan Newsprint Ltd. (HNL)

In order to maximize production of highyielding, disease-resistant clonal plantlets, HNL has established two mist chambers with production capacity of 6 lakh plantlets per annum; expanded the facilities like hardening units, open nursery and clonal multiplication area to cater to the increased need of mist chambers; and operationalized 3 more Quonset mist chambers of temporary nature to overcome frequent power failure.

9.3.3 Hindustan Paper Corporation Ltd (HPC)

The company engaged in R & D activities on bamboo dust based gasification plant, tissue culture based production facility for quality planting materials, alkaline sizing trial etc.

9.3.4 Security Printing and Minting Corporation of India Ltd. (SPMCIL)

BNP, Dewas has indigenized the production of quickset intaglio ink. It has introduced an in-house developed bi-fluorescent ink for Indian Passport to be used by India Security Press, Nashik which has designed and produced the first batch of E-Passport for M/o External Affairs. The company is aiming to change production patterns so as to meet the advancement of information technology.

9.4 Fertilizer

9.4.1 Fertilizers and Chemicals (Travancore) Ltd. (FACT)

The R&D Centre of the Company functions with the aim of carrying out in-depth research, to provide specialized services to other divisions of the organization, and also involved in the production of environment friendly bio-fertilizers. It has been producing three kinds of biofertilizers viz. Rhizobium, Azospirillum and Bacillus Megatherium. The other areas of research study were quality control, Zincated, Factamfos, effect of particle size of carrier material in shelf life of Bio-fertilizers, etc.

9.4.2 Rashtriya Chemicals and Fertilizers Ltd. (RCF)

R & D activities are carried out in the areas of agriculture, chemicals and poultry.

Agriculture Division :

Micronutrients, Biofertilizers and 100% soluble fertilizers have been successfully developed with reference to soil and crop requirement, and products have been commercialized. Work is in progress on development of Tablet Fertilizer in various grades, undertaking trials for coffee plants in Karnataka and various other crops in Maharashtra, undertaking developmental work on Biopesticides using Karanj and Nilgudi, developing tissue culture for banana and zerbera, development of customized fertilizer for region/site & crop specific drip grades.

Chemical Division :

Development of 100% Water Soluble fertilizer MAP (12:61:0) in house R&D and installation of 10 MT/Day plant by April, 2009 based on generated data from bench scale plant are in progress. Water soluble Calcium Nitrate (40%) suspension fertilizer has been prepared in R&D laboratory as value addition to by-product chalk. Further agronomical studies on efficacy and mode of application has been carried out in Konkan Krishi Vidyapeeth, Dapoli & Mahatma Phule Krishi Vidyapeeth, Rahuri for certain crops and vegetables. The results are encouraging and market potential is being studied.

Chickton :

In the field of Poultry, R&D has developed Liquid Feed Acidifier which helps in reducing mortality and improves weight gain on chickens. The product is also evaluated at CARI, a National Institute for Poultry. The results are encouraging and the product is currently under market trial.

9.5 Heavy Engineering

9.5.1 Burn Standard Co. Ltd. (BSCL)

BSCL is trying to strengthen its concerned areas of operation in core competence. Salem Works is endeavouring to develop low cost Mag. Carbon Bricks and high Alumina Magnesium Carbon Bricks for ladles impact zone, low cost Magnesium Chrome Bricks for different applications and Magnesium Chrome Laddie

Bricks in collaboration with CGRS and develop better quality of MCB Bricks in collaboration with RDCIS, Ranchi.

9.6 Medium & Light Engg.

9.6.1 Andrew Yule & Company Ltd. (AYCL)

The company has carried out R&D activities in different areas under Engineering Division and Electrical Division, which resulted in design and development of new products and substantial cost saving in the form of import substitution vis-à-vis augmentation of revenue earnings. Electrical Division carried out R&D activities in the areas of design upgradation and testing of 1600Amps. 11KV indoor VCB, design and upgradation of 33KV PCVCB, validation test for Yule HEAG make 11KV, 20KA, 630A Outdoor VCB for Capacitor Banks switching test; re-engineered design of 12KV VCB Indoor Panel for reduced width and distinct compartmentalized enclosure for internal ARC suitability; reengineered design of 36KV Outdoor VCB for making provision of SF6 Gas filling; and reengineered design of 36KV Outdoor VCB for value engineering and adopting ABB interrupter.

9.6.2 Balmer Lawrie & Co. Ltd. (BL)

One of the objectives of the company is to leverage in-house R&D for technology upgradation/absorption and new product development in identified thrust areas, to supplement in-house capabilities through strategic association with scientific/technological institutions of repute. R&D work has been carried out in development of lubricants, leather chemicals and industrial packaging. Based on R&D efforts in lubricants, superior performance specialities were developed for application in steel sector, railways, automobile sector etc. Two patent applications were filed during the year. In leather chemicals, the thrust of development had been towards high performance fat liquors and syntans as well as on environment friendly tanning agents. In industrial packaging, re-engineering of equipment developed in-house for conical drum manufacturing was taken up. For future, the R&D efforts are directed to value engineering of existing product ranges; development of new ranges of speciality/high performance products in lubricants and leather chemicals and value added industrial packaging applications, and development

of systems and equipment to aid in cost effective manufacturing.

9.6.3 Bharat Electronics Ltd. (BEL)

BEL has set up Central Research Laboratories at Bangalore and Ghaziabad for undertaking research in futuristic areas with a view to identify and realize latest technologies relevant to its products. It also closely works with DRDO Laboratories. The company is working on new technology areas which include frequency hopping radios, encryption, software defined radio, mobile satellite terminals, c4i systems, phased array radars, new generation sonars, and electro-optical fire control system.

9.6.4 BEL Optronics Devices Ltd. (BELOP)

The company's in-house R&D Unit is involved in all the product and process developments and yield improvement activities. The R&D Unit is also involved in design & inhouse fabrication of UHV Systems & Test Equipments for enhancement in production & testing capacity of I.I.Tubes and Power Supplies. The company has derived the following benefits as a result of the above efforts:

- Supply of better quality Tubes to customers.
- Yield and productivity improvements leading to profit.
- Increase in production and test capacity.
- Export of products.

9.6.5 Central Electronics Ltd. (CEL)

The company makes efforts to retain its technological leadership in the area of SPV and chosen fields of electronics through in-house R & D as well as collaboration and cooperation with DRDO and CSIR Laboratories, Universities, IITs etc. CEL has launched a project for 'Point Zone Digital Axle Counter (PZDAC) with grant provided by DSIR (Dept of Scientific and Industrial Research) and a project for production of CZT Substrates sponsored by Solid State Physics Lab (SSPL).

9.6.6 HMT Ltd.

The company has taken R&D initiative for reduction of wheelbase and improvement in Ceramic clutches. The company has also made investment for technology up-gradation in CAD/CAM facilities,

testing facilities, implementation of ERP packages etc. The company has developed 75HP naturally aspirated Engine and 4902 Genset Engine. Development of 7522 HP Tractor with 4WD & constant mesh gear box are under progress.

9.6.7 HMT Watches Ltd. (HWL)

The company has established its own R&D facilities for different products to meet its needs. The focus is on progressively achieving self reliance in product technology. It has developed and launched new sub-brand HQ series watches and has introduced several new models of watches.

9.6.8 ITI Limited (ITI)

The company has undertaken R&D initiatives for Encryption-Secure Communication, Pouncing Panther, Media Secrecy Device (MSD), Flex Data Encryptor (FDE) and FAX Encryptor and Protocol Converter (for E1 to V.35). These devices are successfully inducted into customer network.

9.6.9 Vignyan Industries Ltd. (VIL)

As a R&D initiative for increasing production, the Company is introducing fast loop moulding system (no bake process), installation of heat treatment furnace and procurement of spectrometer. Technology has been developed indigenously for manufacture of SG Iron and implemented by the R&D Team.

9.7 Petroleum (Refining & Marketing)

9.7.1 Bharat Petroleum Corporation Limited (BPCL)

BPCL has three in-house R&D Centres viz. Corporate R&D Centre at Greater Noida, UP, Product & Application Development Centre at Sewree, Mumbai and R & D Centre at Kochi Refinery. All these centres are recognized by the DSIR, Ministry of Science & Technology, Govt. of India. The areas of R&D activities being carried out include catalytic processes and catalyst development, fuel additives, corrosion & fouling, detailed crude evaluation and crude compatibility; energy efficiency improvement; alternate fuels, biotechnology including bio-ethanol, nanotechnology for lubrication and gas storage, coal/resid to liquid (CTL) technologies, effluent treatment technologies, long life diesel engine oil for heavy commercial vehicles, passenger car engine oil for latest models; bio-degradable cutting oil, high performance grease, defence specific grade and

alternate formulation for existing grades.

9.7.2 Bongaigaon Refinery and Petrochemicals Limited (BRPL)

BRPL in collaboration with IOC (R&D) had carried out field trial-run in its DCU & CCU plant for production of Needle coke of improved quality using suitable blend of feedstock. Based on the study, the Company has started regular production of Needle coke, which is an import substitute product. Study was carried out to optimise the yields of diesel streams from Assam crude and blend Kerosene variants to the BS-II HSD pool so as to minimise the production of non-BS-II diesel. BRPL is producing a special grade BS-II diesel having (-) 12oC pour point by using pour point depressant. Through an in-house study, Light Diesel Oil (LDO) quality has been improved for better customer satisfaction.

9.7.3 Chennai Petroleum Corpn. Ltd. (CPCL)

The Company's in-house R&D Centre continue to play a pivot role in extending support to refinery operations by carrying out Pilot Plant evaluation of catalysts and feed stocks for secondary processing facilities, assay of New Crude etc. It has further supported Refinery units like FCC, Hydro processing and Lube units with process and feed optimization studies. A high pressure hydro-treating pilot plant was upgraded through revamp during this year with major modification in PC- PLC Control system to carry out evaluation with excellent precision. The research alliance between CPCL R&D centre and National Centre for Asphalt Research, IIT Madras has resulted in the development of various strategies for producing Performance grade products form CPCL feed-stocks meeting ASTM, SHRP standards. CPCL has been a pioneer in introducing many new technologies such as Distributed Control System, process Optimization, Water Management Projects such as Sewage Reclamation unit, Zero Discharge Plant etc. CPCL is also a pioneer in the industry for its efforts in renewable energy initiatives as it has established wind mills/farms to meet the demands of power for its Diesel Unit.

9.7.4 GAIL (India) Limited (GAIL)

GAIL has carried out R&D activities in the following areas :

- Leak detection software development for Natural Gas pipelines.
- Technology development for Adsorptive separation of Light hydrocarbons Gas mixtures.
- Development of Catalyst and Process for the conversion of Waste Plastics, LPW to Value added Liquid Fuels.
- Pilot scale testing of Coke inhibitors for Gas Cracker Furnaces.
- Exploration & Production of gas from Hydrates in Goa offshore under National Gas Hydrate program (NGHP)
- The indigenous leak detection software implemented in Lanco-Tatipaka Pipeline. Implementation in other pipelines are planned.
- Energy savings to the tune of 40% is expected in this novel process of Adsorption separation compared to conventional distillation separations such as Methane- Ethane.
- This technology will convert waste plastics to value added hydrocarbon fuels and will also solve waste plastics disposal problem.
- Coke inhibitor will inhibit coke formation leading to less downtime on account of decoking of furnaces, less maintenance and higher output.
- Based on the Geo-Scientific investigations, Natural Gas Hydrate is the future energy source in the form of Methane if it can be economically produced.

9.7.5 *Hindustan Petroleum Corporation Limited (HPCL)*

Corporate R& D was initiated in 2006-07, with the objective to set up a World Class R&D Centre at Bangalore and to identify and undertake research activities in potential areas. Currently the land acquisition, tendering and placing the purchase orders for the infrastructure facilities are in progress. The R&D Centre has taken up projects in collaboration with national and international in the areas of fundamental research, applicative research and projects to operational improvement. The fundamental research

include study of monolithic reactor for multiphase reactions, slurry bubble column hydro dynamics, supported ionic liquid catalysis and hydro dynamics in packed beds, modeling of mass transfer effects in residue FCC, in-situ sulfating on NiMo/Al₂O₃ catalysts with IIT-Kanpur, study on bioremediation and nano lubes applications (with GITAM University) and nano lubricants molecular research (with IISc, Bangalore). The projects on alternate energies and applicative research include hydrogen production from natural gas (with IIT,Delhi) and slop cut elimination (with IIT,Kanpur).

9.7.6 *Indian Oil Corporation (IOC)*

The company undertakes research in various areas in its R&D Centre established in 1972 at Faridabad. It lays thrust on cutting edge technologies keeping in view the changing/emerging needs. The Company has more than 100 patents registered abroad as well as in India. The technologies under these patents relate to refinery and pipelines, lube/fuel and marketing etc. Some of the technologies have been acquired through joint ventures. The Company has taken steps towards product diversification such as biodiesel, hydrogen research, LNG, petrochemicals etc. Over the years R&D Centre has developed skill sets and expertise in several areas of technologies and services including technical solutions. Every year, the Company develops numerous lubricant formulations and also obtains product approvals from original equipment manufacturers.

9.7.7 *Mangalore Refinery and Petrochemicals Ltd. (MRPL)*

MRPL conducts R&D activities in its state-of-the-art laboratory. It is in the process of setting up a full fledged R&D centre. This will take up projects like Corrosion monitoring and inhibition (Water and Sulfide corrosion) in Refinery, Catalyst evaluation studies, additive efficacy, and further research in bio-based fuel or additives. Specific R&D activities on crude assay, destroying odour causing phenolic compounds in spent caustic using Chlorine Dioxide, development of suitable Bio-additive for HSD etc. have been undertaken.

9.8 **Steel**

9.8.1 *Mishra Dhatu Nigam Limited (MIDHANI)*

Midhani is offering its core competence for manufacturing alloys tailor-made to suit the

specific requirements of customers for their critical applications. The R&D efforts at MIDHANI during 2007-08 resulted in the development of following five new products used for critical applications:

- High temperature corrosion resistant super alloy equivalent to INCONEL 690 for nuclear applications;
- ‘Ti’ containing austenitic stainless steel for nuclear applications;
- Ultra high strength precipitations and hardenable stainless steel for aerospace applications;
- Single phase Ti alloy for cryogenic applications; and
- High strength austenitic stainless steel heavy forgings for nuclear applications.

In order to improve production design and processes the Company adopted new technologies which include pack and cold rolling trials for Titan 31, process improvement in MDN 403 and 440; modification of manufacturing route of Superni 690, development of air hardening quality Armour steel etc.

9.8.2 *Rashtriya Ispat Nigam Ltd. (RINL)*

R&D initiatives are undertaken in RINL keeping in view the present & future requirements of the different plants waste management, cost reduction and environment protection.

Following R&D initiatives were taken during the year :

- 45 Carbonization tests were conducted in Pilot coke Oven for optimization of Coal blend.
- 43 Pot sintering experiments were done to find out affect of Micro fines in various proportions ranging from 0 to 50 percentage of Iron Ore.
- The project on usage of SMS GCP sludge briquettes in Converter as a replacement for Sized Iron ore (38 tons of GCP sludge briquettes were used) was implemented.
- A total of 44 heats in 7 new grades were produced. EN8A, 2830M, TMTMA, MSR, MSP, SUP10, 1547 grades were also produced during the year.

9.8.3 *Steel Authority of India Ltd. (SAIL)*

SAIL has a well-equipped Research and Development Centre for Iron and Steel (RDCIS) at Ranchi, which helps to produce quality steel and develop new technologies for the steel industry. SAIL also has an in-house Centre for Engineering and Technology (CET).

9.9 **Transportation Equipment**

9.9.1 *Cochin Shipyard Ltd. (CSL)*

In-house R&D initiatives were undertaken by the company in the areas of welding and design. CSL has developed complete design of 1500 KW tug, 2400 KW tug and 3300 KW tug, hull model for platform supply vessels; complete production engineering design of above tugs in 3D hull and outfit modeling in Tribon, 3D hull modeling and outfit modeling of piping systems, ventilation, air-conditioning, cabling and structural items; structural drawings of ADS based on the inputs from Navy, propulsion systems integration for the ADS project, and Aircraft Facilities Complex for ADS. Modernization of existing facilities in ship building & ship repairing, renewals and replacements and small ship division have been completed.

9.9.2 *Goa Shipyard Limited (GSL)*

All the vessels that are under construction have been designed with GSL in-house design capability. GSL has designed in-house and model tested 35 knots Fast Patrol Vessel (FPV) for Indian Coast Guard.

9.9.3 *Hindustan Aeronautics Ltd. (HAL)*

The major R&D programmes currently being pursued are Intermediate Jet Trainer (HJT- 36), Light Combat Aircraft (Tejas), Weapon System Integration (WSI) on ALH, Sea Harrier upgrade, Light Combat Helicopter and development of accessories and avionics for different aircraft/helicopters.

9.10 **Coal**

9.10.1 *Coal India Ltd. (CIL)*

The Research & Development (R&D) efforts of Coal India Ltd. are promoted through the R&D Board of CIL, which sanctions R&D projects for funding from internal resources of the company. The key thrust areas of R&D activities are categorized as Production, Productivity and Safety, Coal Beneficiation, Coal Utilization and Environment & Ecology. R&D

project on development of emission factor for various coal mine machineries and operations has been successfully complete during the year. R&D projects on assessment of population exposure to respirable particulates in opencast mines (health study), Damodar River Pollution Quantification & Dynamics, and Water Management in coal washery plants through IIT, Delhi, Newcastle University, UK and CMPDIL have been also identified.

9.10.2 Eastern Coalfields Ltd. (ECL)

The R&D work relating to different mines is handled centrally by CMPDI(HQ), another subsidiary of CIL at Ranchi. In order to improve production, latest underground mining technologies have been proposed in different mines of ECL. Efforts are being made to modernize the operation of UG mines by introduction of Intermediate Technology with the deployment of SDL/LHD, Universal Drilling Machine (UDM) and Pony Belt conveyor.

9.10.3 Neyveli Lignite Corporation Ltd. (NLC)

The R & D projects initiated by the company include development of Integrated Farming System in the mine spoils area for its reclamation, development of high performance highways using fly ash composites, development of a process for the production of activated carbon from lignite, long term studies on utilization, popularization of fly ash in agriculture and pilot plant feasibility studies for continuous production of various forms of potassium humate. The Company has developed a process for extracting humic acid from lignite where the lignite will have a diversified utility for growth of agriculture. Patent has been granted for this project and with a view to commercialise the process, MoU has been entered into with National Research Development Corporation New Delhi. The Coal S&T project Development process for the production of activated carbon from lignite was completed. The activated carbon produced in the pilot plant is found to have good absorption capacity development and use of fly ash based pesticides.

9.10.4 Western Coalfields Limited(WCL)

R&D and technical studies on extraction of pillar, Wide & Stall method, design of support system, hydro-geological survey, slope stability test, controlled blasting are carried out in various mines of WCL

through different scientific and research organisations on a regular basis, like :

- Central Mining Research Institute
- National Institute of Rock Mechanics
- Central Mine Planning & Design Institute

9.11 Crude Oil

9.11.1 Oil India Ltd. (OIL)

During the year the company has taken R&D initiatives in 12 different areas like Oil to Oil and Oil to Source correlation studies using advance geochemical analysis of crude oils and source rocks from assam basin, reservoir fluid identification through geochemical analysis of sidewall cores, control of paraffin deposition in production tubing of producing wells, study on low injectivity problem in water disposal wells at a depth below 1000m, study of scale problem in ITF and shalmari OCS water flow lines, implementation of meor technology in oil's wells, evaluation of alkali surfactant and polymer (asp) flooding for EOR, national gas hydrate programme(NGHP) in Indian offshore, development of oilfield chemicals, flow assurance of barekuri-makum pipeline, studies on conversion of coal to liquid fuel, and ambient air quality monitoring in OIL's operational area.

9.11.2 Oil and Natural Gas Corporation Ltd. (ONGC)

ONGC's R&D infrastructure comprises of ten institutes located across India that are engaged in R&D work covering varied areas of E&P activities such as Exploration, Reservoir Management, Drilling, Production Technology and Offshore technology and also for Management Development. These institutes provide essential support to keep pace with the latest developments in technology world over, through procurement of state-of-the art technology, forming strategic alliances with world leaders, signing of MoUs with other R&D Institutes within India and abroad.

State of Art Technologies like Q-Marine Survey, 4D-seismic, Multi-Component Seismic Survey, GX Technology, Sea-Bed Logging, Air Borne Electro Magnetic(AEM), Multi-Transient Electro Magnetic (MTEM), Virtual Drilling Seismic Channel Capacity Upgradation are absorbed by ONGC and

technologies like 4C-4D project and Accelerated Weight Drop (AWD) are under advanced stage of induction/absorption. ONGC has identified potential areas for gas hydrate investigation in KG offshore, Mahanadi Offshore, Adaman Offshore and West Coast Offshore in collaboration with National Institute of Oceanography, Goa.

The company has set up Energy Centre at Delhi for holistic research for new and alternate energy sources. It has taken up a number of new projects like Thermo-chemical generation of Hydrogen, bioconversion of coal/oil to methane gas, Uranium exploration, Solid state lighting, Solar PV Energy Farm etc.

9.12 Other Mineral & Metals

9.12.1 Bharat Refractories Limited (BRL)

BRL, through its own fully equipped laboratories is aiming to meet the challenge of upgradation of process technology in the major consuming industries and continuous improvement of product quality. Some of the products developed through in-house R & D work include Mullite bricks for high capacity Blast Furnace Tap Hole, Blast Furnace, Tap Hole Mass (both Tar bonded as well as resin bonded), and Zero Cement Castable.

9.12.2 Hindustan Copper Ltd. (HCL)

Study on bio-leaching of lean grade copper core of MCP continued in collaboration with Institute of Minerals and Metals Technology(IMMT), Bhubaneswar under a MOU in this regard. HCL engaged Earth Resources Technology Consultants for optimization of blasting fragmentation at MCP for productivity improvement. R&D Laboratory at ICC has been certified by National Accreditation Board for testing and calibration of Laboratories (NABL), following by accreditation in this regard.

9.12.3 Indian Rare Earths Ltd. (IREL)

The R&D activities carried out by the company in several areas resulted in improvement in grade and recovery of the mineral products, reduction of processing cost, value addition, product diversification, development of new process and technology and recovery of strategic products from new raw materials.

9.12.4 Kudremukh Iron Ore Co. Ltd. (KIOCL)

Process and technological modification for use of Hematite ore for pellet making and grinding facilities are under progress to improve production in consultation with reputed organizations like Regional Research Laboratory (RRL), Bhubaneswar, M/s COREM, Canada, Metchem Canada Inc, Canada, KHD Humboldtwag GMBH etc. Possibility of using presser filters is being explored to filter the ultra fines and reduction of moisture. This will improve productivity and quality of pellets.

9.12.5 National Aluminium Co. Ltd. (NALCO)

In-house R&D Activities are being carried out by the company in Alumina Plant and Smelter Plant which include Laboratory scale studies on Utilization of Fly Ash, setting up of a Pilot Plant for treatment of Sodiatic Condensate, characterization of Baked Anode for process monitoring, setting up Anode Bench Scale Plant facilities, study on effect of Butts content on Green Anode quality etc. Collaborative R&D activities being carried out by the company include development of effective technology for extraction of alumina from PLK in collaboration with MISA, Mosco (Russia), development of viable Flow Sheet to recover Titanium and Iron from the plant sand of Alumina Refinery, Damanjodi in collaboration with Institute of Minerals and Materials Technology (IMMT) (Bhubaneswar), decontamination and recovery of Carbon Value from SPL – a pilot plant study with IMMT; plasma smelting of Red Mud for production of Pig Iron/ Cast Iron and Alumina rich slag with IMMT, investigation and utilization of SPL as a co-fuel at CPP in collaboration with CFRI, Dhanbad; study on impurity build-up during bauxite processing and its effect on Bayer Liquor Chemistry with JNARDDC(Nagpur), evaluation of grain refining efficiency of commercially available grain refiner alloys with JNARDDC(Nagpur) etc.

9.12.6 National Mineral Development Corp. Ltd. (NMDC)

The R&D Centre of NMDC functions in various thrust areas such as upgradation of processing technology of existing process plants; development of technology for utilization of low grade minerals and mines wastes, development of value added products etc. The company has undertaken R&D activities such as (i) setting up pilot plant facilities for production

of Carbon Free Sponge Iron powder and Nano Crystalline powder from Blue Dust, (ii) development of indigenous technology for production of value added products from Beach Sand, (iii) setting up pilot plant for commercialization of Precipitated Silica Sodium Silicate and Zeolite – A from Kimberlite, (iv) development of various grades of Ferrite powders etc.

9.13 Contract & Construction Services

9.13.1 BBJ Construction Co. Ltd. (BBJCC)

In order to promote R&D and upgradation of technology the Company has absorbed the sophisticated technology of Cable Stayed and Cable Suspension Bridges. In the field of Gauge Conversion, the company has developed the First Launching Method of Steel Girders, which has been successfully introduced in various bridges in the states of Assam, Uttar Pradesh and Andhra Pradesh.

9.13.2 Bridge & Roof Co. (India) Ltd. (B&R)

R&D activities of B&R include study of the existing business scenario as well as specific area where new products and services either by diversification or by upgradation of technology can be identified. The Company has been developing new products and Technologies in diversified areas such as Furnaces and Heaters, LSTK Projects, Cross-country Pipeline, Highways and Expressways, Bailey bridge, Railway Wagons, Main Boiler for Thermal Power Stations, Metro Rail at Delhi, Storage Silos for Alumina, Water Supply and Sewerage Systems, Flyovers etc.

9.14 Industrial Development & Technical Consultancy Services

9.14.1 Engineers India Limited (EIL)

The R&D Division of the Company pursued its initiatives towards optimization of acquired technologies and betterment of open art technologies and development of new processes and equipment design. These developmental activities are undertaken at the R&D Centre in Gurgaon and in association with institutes/organizations like IIP, CHT, IOC (R&D) etc.. Two R&D projects relating to design methodology for oxygen enrichment and improved CFC based LPG treating process have been completed. The CFC technology developed in association with the R&D

wing of Indian Oil Corporation Ltd. Has been granted a ‘patent’ in the USA.

9.14.2 National Research Development Corporation (NRDC)

For the up-gradation of technology, NRDC is selecting few projects every year under its programme ‘Priority Projects’ with the following objectives :

- Selection on the basis of market potential, technology supply considerations and export potential.
- Sponsor time bound programmes for such R&D projects.
- Identify and associate Industry for collaboration for quick and effective utilization of technology to be developed.

9.14.3 RITES Limited

The company is improving its efficiency by way of technological upgradation. Steps taken towards technology upgradation at R&D stage are :

- (i) design and development of Cape Gauge DMU Train sets for Angola,
- (ii) design and development of Cape Gauge Self – Propelled Accident Relief Train for Angola,
- (iii) detailed proposal for development of locomotive, crash worthiness and occupied protection (crew and passengers) for Indian Railways.

9.15 Trading & Marketing Services

9.15.1 Handicrafts & Handlooms Exports Corp. India Ltd. (HHEC)

HHEC contributed significantly to the revival of languishing crafts through identification and development of varied craft clusters in different regions of India. The company undertakes development of in-house samples on continuous basis and strives to ensure quality control and timely delivery. It has 21 procurement centres all over India.

9.15.2 Central Warehousing Corporation

CWC is fully committed to maintain scientific preservation of goods received in the warehouses. Code of storage practices are being formulated, which help in assessment of quality, methods of preservation, stacking pattern, nature of infestation,

its control measures, etc. The Corporation has evolved storage practices for 207 commodities, which include agricultural produce, industrial chemicals and other notified commodities. The Corporation is also doing various trials on new chemicals in the field of pest control to evolve effective, less toxic and economic solutions to the pest problems. Earlier, wooden crates were being used as dunnage in the warehouses. As a part of the eco-friendly approach to avoid deforestation, the Corporation has tried alternate dunnage in the form of poly pallets, flexible unbaked laminated PVC flooring, street pallets, eco wood pallets, etc. The results have been quite encouraging. In a bid to evolve non-chemical methods of pest control, the Corporation has done successful trials on Neem Preparation "AZADIRACTIN" 1500 PPM, which can be fitted as a part of integrated storage pest management system. R&D Division has also carried out successful trials on fumigation of high value agro products using carbon di-oxide. These non chemical methods are likely to be more eco-friendly and viable alternative in control of storage pests particularly in organic food, which cannot be treated with any other

pesticide. Based on the field trials, Corporation has introduced multilayered cross-laminated fumigation covers for effective and efficient fumigation.

9.16 Transport Services

9.16.1 Shipping Corporation of India Limited

The Company has achieved the following developments after research and analysis:

- i. installation of equipments and systems on board vessels, like Inmarsat Fleet 77 for economic and speedy communication from ships to shore and vice versa using high speed data/MPDS (mobile packet data service)/ISDN lines,
- ii. installed ISDN telephones/video telephones on new vessels,
- iii. installed water ingress detection system for detection of presence of water in cargo holds on all existing bulk carriers in line with the requirement of IMO
- iv. installation of ship security alert system on applicable coastal and foreign-going vessels as per ISPS code/DGS circulars, etc.

There were altogether 925 projects in the central sector as on 31.3.2009 of which 103 projects were mega projects (each costing Rs. 1,000 crore and above), 472 major projects (each costing between Rs. 100 crore and Rs. 1000 crore) and 350 medium projects (each costing between Rs. 20 crore and Rs. 100 crore). The estimated cost of these 925 projects works out to be Rs. 5,52,093 crore. Based on the Status Report on Central Sector Projects (each costing Rs. 20 crore and above) brought out by the Ministry of Statistics and Programme Implementation. (MOSPI), Government of India, the total expenditure till 31.3.2009 stood at Rs. 2,21,549 crore, which is 40.13% of the total cost.

Out of these 925 projects in central sector, 102 projects (costing Rs. 500 crores and above) belonged to Central Public Sector Enterprises (CPSEs). Of these 102 projects, 75 were mega projects and 27 were major projects. The total original cost in respect of these 102 projects of CPSE stood at Rs. 3,02,585

crore, while the revised/anticipated cost is equal to Rs. 3,14,798 crore.

Sector wise status of these mega and major projects of CPSEs (indicating the name of the project, location, capacity, date of approval, date of commissioning together with anticipated date of completion and cost of the project (original and anticipated) is briefly mentioned in the paragraphs below.

Nuclear Power

There were 6 projects in Nuclear Power sector under implementation as on 31.3.2009. Of these, 5 were in Mega category and 1 in Major category. There were 5 Projects of CPSEs costing Rs. 500 crores and above. These projects belonged to Nuclear Power Corporation of India Limited, Uranium Corporation of India Ltd. and Bhavini Limited, a CPSE under construction. Project wise detail is given as under:-

Nuclear Power Corporation of India Limited (NPCL)

Sl. No.	ProjectLocation	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore)– Original/Anticipated
1.	Kaiga Atomic PowerProject 3 & 4 Units,Kaiga, Uttara Kannada,Karnataka	MW 2 × 220	5/2001	10/2009 (12/2009)	4213.00 (3282.00)
2.	Kudankulam App, Kudankulam,Tamil Nadu	MW 2 × 1000	12/2001	12/2008(5/2010)	13171.00 (13171.00)
3.	Rajasthan Atomic Power Project 5&6, Rawat Bhata Kota, Rajasthan	MWE2 × 220	4/2002	2/2008(9/2009)	3072.00(3072.00)

Uranium Corporation of India Limited. (UCIL)

Sl. No.	ProjectLocation	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore) – Original/Anticipated
1.	Uranium Ore Mine & Processing PlantKadapa, Andhra Pradesh		9/2007	4/2011 (4/2011)	1106.29 (1106.29)

Bhavini Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Prototype Fast Breeding reactor, Kalpakkam, Tamil Nadu	Mwe 500	9/2003	9/2010(9/2010)	3492.00(3492.00)

COAL

There were 125 projects in Coal sector, under implementation as on 31.3.2009. Of these, 8 were in Mega category, 28 in Major category and 89 in Medium

category. There were 10 projects of CPSEs costing Rs. 500 crores and above. These projects belonged to South-Eastern Coal Fields Limited, Northern Coal Fields Limited and Neyveli Lignite Corporation Ltd. Project wise detail is given as under:-

South-Eastern Coalfields Limited (SECL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore)– Original/Anticipated
1.	Dipka Expansion OCP, Korba, Chhatisgarh	[20 MTY]	7/2005	3/2010 (3/2010)	1268.53 (1268.53)
2.	Gevra Expansion OCP, Korba, Chhatisgarh	[25MTY]	7/2005	3/2010 (3/2010)	1667.55(1667.55)
3.	Kusmunda Expansion OCP, Korba, Chhatisgarh	[20 MTY]	6/2006	3/2011(3/2013)	737.65(1188.31)

Northern Coalfields Limited (NCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Krishnashila Singrauli, Madhya Pradesh	[4MTY]	5/2006	3/2010(3/2010)	789.88(789.88)
2.	Amlohri Expansion Project 4 to 10(6 MTY), Singrauli, Madhya Pradesh	[4 to 10 MTY]	5/2006	3/2014(3/2014)	1352.04(1352.04)
3.	Block-B OCP NCL [3.5 MTY], Sidhi, Madhya Pradesh	[3.5 MTY]	7/2006	3/2012(3/2012)	746.04(746.04)

Neyveli Lignite Corporation Ltd. (NLC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Expansion of Mine-II, Neyveli, Tamil Nadu	[10.5 MTPA to 15.0 MTPA 4.5 MTPA	10/2004	6/2009 (2/2010)	2161.28 (2295.93)
2.	TPS-II Expansion (1470 MW to 1970 MW) (NCL) Neyveli, T.N. Tamil Nadu	[1470 MW to 1970 MW (2 × 250 MW)]	10/2004	6/2009 (11/2010)	2030.78 (2453.57)
3.	Barsingsar TPS of 250 MW Bikaner, Rajasthan	[MW 2 × 125]	12/2004	6/2009(1/2010)	1114.18 (1626.09)
4.	Tuticorin Thermal Power Project, Tuticorin, Tamil Nadu	[1000 MW]	5/2008	8/2012(8/2012)	4904.54(4904.54)

Mining

There was only one mega project in Mining sector as on 31.3.2009. This belonged to National

Aluminum Company Limited (NALCO). Detail of the project is given as under:-

National Aluminum Company Limited (NALCO)

Sl. No.	ProjectLocation	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore) – Original/Anticipated
1.	Second Phase Expansionof Captive AluminiumSmelter, Koraput, Orissa	[6300000TPY]	10/2004	12/2008	4091.51 (4091.51)

Petroleum

There were 53 projects in the Petroleum sector under implementation as on 31.3.2009. Of these, 29 were in Mega category and 23 in Major

category. There were 32 Projects of CPSEs costing Rs. 500 crores and above. All these projects belonged to BRPL, BPCL, GAIL, HPCL, IOCL and ONGC. Project wise detail is given as under:-

Bongaingaon Refinery Petroleum Ltd. (BRPL)

Sl. No.	ProjectLocation	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Diesel HydrogenTreatment ProjectBongaingaon, Assam	[2.7 MMTPA]	5/2006	9/2009 (12/2009)	1431.91 (1646.39)

Bharat Petroleum Corporation Limited (BPCL)

Sl. No.	ProjectLocation	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore) – Original/Anticipated
1.	Crude Oil ReceiptFacility, Kochi Refinery,Kerala	[3.0 to 5.0 MMTPA]	4/2006	9/2009 (12/2009)	2591.80 (3941.41)

Gas Authority of India Limited (GAIL)

Sl. No.	ProjectLocation	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore) – Original/Anticipated
1.	Dabhol-Panvel Pipeline Project Maharashtra	[12.5 MCM]	1/2006	7/2007 (1/2009)	1143.54 (1100.00)
2.	Vijaipur-Dadri-Bawana Pipeline Project Andhra Pradesh	[78 MMSCMD]	11/2007	11/2009(10/2010)	5595.31(4316.55)
3.	Dahej-Vijaipur Pipeline Project II Gujarat		11/2007	10/2010(10/2010)	4429.38(4403.26)
4.	Bawana-Mangal Pipeline Project Delhi		11/2007	10/2010(10/2010)	1816.07(1816.07)
5.	Compressor Station (Vijaipur & Jhabua) Phase I & II		11/2007	10/2011(10/2011)	1512.00(1512.00)
6.	Compressor Stations (Kailaras & Chainsa)		11/2007	11/2011(11/2011)	1061.93(1061.93)

Hindustan Petroleum Corporation Limited (HPCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost (Rs. in crore) – Original/Anticipated
1.	Green Fuels & Emission Control Project at Mumbai Refinery, Mumbai, Maharashtra	7.9 MMTPA	10/2002	4/2005 [3/2009]	1152.00 (1731.00)
2.	Clean Fuels Project Vizag Refinery Modernization Visakhapatnam, A.P.	8.3MMTPA	4/2003	5/2006 (6/2009)	1635.00 (2147.79)
3.	Lube Oil Base Stock Quality up Gradation, Maharashtra	[API-GR.III]	10/2006	4/2009 (5/2010)	638.90 (1030.00)
4.	Resitment of Marketing Installation at Visakh, Vishakhapatnam, A.P.		1/2009	12/2011(12/2011)	756.00(756.00)
5.	Installation of FCCV at Mimbai Refinery Mumbai, Maharashtra	[1.456 MMTPA]	3/2007	9/2009(5/2010)	900.47(900.47)

Indian Oil Corporation Limited (IOCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore)– Original/Anticipated
1.	Pradip-Haldia Crude Oil Pipeline System, Orissa/WB	15×60000KL	3/2004	3/2006 (1/2009)	1178.00(1380.00)
2.	Inst. of Facilities for Improvement in Diesel Quality Haldia, W.B.		11/2005	4/2009 (12/2009)	1876.00(2869.00)
3.	Panipat-Naphta Cracker Project, Haryana	[4 × 22.5 MW]	4/2006	9/2009 (11/2009)	12138.00 (14439.00)
4.	Expansion of Panipat Refinery 15 MMTPA, Haryana	[15 MMTPA]	6/2005	3/2008(12/2009)	806.00 (1007.83)
5.	Residue Upgradation & MS/ HSD Quality Improvement Project, Gujarat	[2.1 MMTPA]	1/2007	1/2010 (1/2010)	5693.00 (5882.00)
6.	MSQ Upgradation Project at Panipat Refinery, Panipat, Haryana		1/2008	12/2009 (12/2009)	1131.00 (1131.00)
7.	MSQ Upgradation Project at Barauni Refinery, Barauni, Bihar		4/2008	4/2010(3/2010)	1492.00(1492.00)
8.	Paradeep Refinery Project, Orissa		2/2009	3/2012(3/2012)	29777.00(29777.00)

Oil & Natural Gas Corporation Limited (ONGC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore)– Original/Anticipated
1.	Development of Bassein(Vasai) East, Western Offshore	4.656 MMT of oil & 6.22 BCM of gas	4/2003	3/2006 (4/2009)	985.17 (1688.38)
2.	C2-C3 & LPG Recovery from LNG at Dahej, Dahej, Gujarat	2×4 or 5MMTPA	12/2003	6/2006 (3/2010)	900.92 (1493.49)
3.	Additional Development of A-1 Layer, Maharashtra	[3.49 MMT oil and 0.79 BCM gas]	4/2005	12/2006 (3/2008)	910.53(910.53)
4.	Heera and South Heera Redevelopment Project, Maharashtra	[10.865 MML of Oil and 2.665BCM Gas]	9/2006	6/2010 (6/2010)	2305.30 (1339.25)
5.	Development of C-Series Fields, Maharashtra	[1514. BCM gas and 6.13 MML of Oil]	8/2006	12/2008 (12/2009)	3195.16 (1800.00)
6.	Construction of New Process Complex MHN, Maharashtra	[23 Pipeline × 14 Platforms]	1/2007	5/2010 (5/2012)	2853.29 (2853.29)
7.	Development of B-22 Cluster Fields, Mumbai, Maharashtra	[2,46 MMT of Oil and 6.56 BCM of Gas]	1/2007	2/2009 (9/2010) (3/2011)	1552.63 (1552.63)
8.	Offshore Grid Inter Connectivity Project in Mumbai High, Maharashtra	[81 ESP]	1/2007	3/2010 (3/2012)	740.02 (740.02)
9.	Development of B-193 Cluster Fields, Maharashtra	5.57 MMT of Oil and 5.12 BCM of Gas]	6/2007	3/2010 (3/2011)	3248.78 (2710.10)
10.	Mumbai High South Redevelopment Phase-II	346 MT	6/2007	6/2009(4/2011)	1252.75(5713.07)
11.	Development of B-46 Cluster Field	4.48 BCM of Gas	6/2007	5/2010(5/2010)	1436.21(1436.21)

POWER

There were 70 projects in Power sector under implementation as on 31.3.2009. Of these, 31 were in Mega category and 35 in Major category. There

were 37 Projects of CPSEs costing Rs. 500 crores and above. All these projects belonged to NEEPCO, THDC, NTPC and PGCIL. Project wise detail is given as under :

North East Electric Power Corporation Ltd. (NEEPCO)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore) – Original/Anticipated
1.	Kameng Hydro Electric Project 4×150 MW, Arunachal PR.	[MWE4 ×150 = 600]	12/2004	12/2009 (3/2011)	2496.90 (2977.25)

National Hydroelectric Power Corporation (NHPC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original / Anticipated	Cost(Rs. in crore)– Original/ Anticipated
1.	Loktak Downstream Hydro Electric Project 3 × 30/2 × 30 MW, Manipur	[MW 3 × 30)/2×33]	12/1999	6/2006	578.62 (578.62)
2.	Parbati Hydro Electric Project Stage-II4 × 200 MW, Himachal Pradesh	[MW 4 × 200]	9/2002	9/2009 (3/2013)	3919.59(3525.25)
3.	Lower Subansiri Hydro Electric Project Arunachal Pradesh	[MW 8 × 250]	9/2003	9/2010(12/2012)	6285.33(7451.99)
4.	Sewa-II Hydro Electric Project J&K	MW 3 × 40	9/2003	9/2007 (10/2009)	665.46 (849.98)
5.	Tessta Low Dam Hydro Electric Project Stage-III West Bengal	[MW 4 × 33]	10/2003	3/2007 (3/2010)	768.92 (1073.29)
6.	Chamera Hydro Electric Project, Stage-III	[MW 231]	8/2005	8/2010(8/2010)	1405.63 (1532.52)
7.	Teesta Low Dam Hydro Electric Project Stage-IV West Bengal	[4 × 40 MW]	9/2005	9/2009 (12/2010)	1061.38 (1061.38)
8.	Parbati Hydro Electric Project Stage-III 4 × 130 MW, Himachal Pradesh	[520MW]	10/2005	10/2010(11/2010)	2304.56 (2129.89)
9.	URI H.E.P. Stage-II(NHPC), J&K	[240 MW]	8/2005	11/2009 (2/2011)	1729.29 (1351.88)
10.	Chutak Hydro Electric Project 4 × 11 MW, Kargh, J&K	[44 MW]	8/2006	2/2011 (2/2011)	621.26 (747.10)
11.	Nimboo Bazgo Hydro Electric Project J & K	[3 × 15 MW]	8/2006	8/2010 (8/2010)	611.01(723.99)

Tehri Hydro Development Corporation Limited (THDC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original / Anticipated	Cost(Rs. in crore)– Original/ Anticipated
1.	Koteshwar Hydro Electric Project, 4 × 100 MW, Tehri, Uttaranchal	[MW 400]	4/2000	4/2005 (12/2010)	1301.56 (1301.56)
2.	Tehri Pumped Storage Plant, 4 × 250 MW, Uttaranchal	[1000 MW]	7/2006	7/2010 (4/2013)	1657.00 (1657.60)
3.	Vishnugad-Pipalkota Hydro Electric Project Chamoli, Uttaranchal	[444 MW]	8/2008	6/2013[6/2013]	2491.58(2491.58)

Satluj Jal Vidyut Nigam Limited (SJVN)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/ Anticipated	Cost(Rs. in crore)– Original/ Anticipated
1.	Rampur Hydro Electric Project 412 MW, Rampur, Himachal Pradesh	[6 × 68.87 MW]	1/2007	1/2012(3/2012)	2047.03 (2047.03)

National Thermal Power Corporation (NTPC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Koldam Hydro Electric Project, 4 × 200 MW, Bilaspur, Himachal Pr	[MW 4 × 200]	10/2002	4/2009 (12/2011)	4527.15 (4527.15)
2.	Kahalgaon STPP Stage-II, 3 × 500 MW Bhagalpur, Bihar	[500 × 3 MW]	5/2004	5/2007 (3/2009)	5868.31 (5868.37)
3.	Sipat STPP Stage-I, 3 × 660 MW Bilaspur, Chhatisgarh	[660 MW × 3]	12/2003	12/2009 (3/2011)	8323.39 (8323.39)
4.	Barh STPP, 3 × 660 MW Bihar	[MW 3 × 660]	12/2003	11/2010(12/2012)	8692.97 (8692.97)
5.	Loharinag Pala Hydro Electric Project Uttaranchal	[4 × 150MW]	6/2006	11/2011(6/2012)	2895.10 (2895.10)
6.	Korba STPP Stage-III, 1 × 500 MW Madhya Pradesh	[1 × 500 MW]	8/2006	2/2010(2/2010)	2448.50 (2448.49)
7.	Farakka STPP Stage-III, 1 × 500 MW Murshidabad, West Bengal	[1 × 500 MW]	7/2006	8/2010 (8/2010)	2570.44(2570.44)
8.	National Capital Thermal Power Project Stage-II, 2 × 490 MW, Dadri, Uttar Pradesh	[2 × 490 MW]	10/2006	10/2010 (10/2010)	5135.33 (5135.33)
9.	Simhadri STPP Stage-II, 2 × 500 MW, Visakhapatnam Andhra Pradesh	[2 × 500 MW]	8/2007	5/2011 (5/2011)	5103.39 (5038.53)
10.	Bongaigaon Thermal Power Project Assam	3×250 MW	1/2008	7/2011(7/2011)	4375.35(4375.35)
11.	MOUDA STPP Nagpur, Maharashtra	500 × 2 MW	11/2007	2/2012(8/2012)	5459.28(5459.28)

Power Grid Corporation of India Limited (PGCIL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore)– Original/Anticipated
1.	Transmission Sy. Associated with Barh Gener. Project (P.Gr.), Bihar	[3 × 660 MW]	12/2005	9/2009 (9/2009)	3779.46(3779.46)
2.	Neyveli TS-II, Transmission System, 838 CKM, Tamil Nadu	[838 CKM]	1/2005	12/2007 (6/009)	691.83[806.38]
3.	Kaiga 3 × 4 Transmission System Karnataka	[759 CKM]	3/2005 (12/2008)	12/2007 (3/2010)	596.45 (1007.16)
4.	Kundankulam-App Transmission System, Tamil Nadu	[1838 CKM]	5/2005	11/2008 (6/2009)	1779.29 (1896.65)
5.	SIPAT-II Supplementary Transmission System(1167 CKM), Chhatisgarh	[1400 KVD/C and 765 KV]	6/2005	6/2008 (5/2009)	813.67(820.45)

6.	East-West Transmission Corridor Strengthening Scheme, E/W Region	[1230Ckm]	6/2006	6/2009 (3/2010)	803.70 (803.76)
7.	Eastern Region Strengthening Scheme-I, (1142 CKM) Eastern Region	[1142 Ckm]	10/2004	10/2009 (10/2009)	975.96(975.96)
8.	Western Region System Strengthening Scheme-II, Western Region]	(7075 CKM),	7/2006	7/2010 (7/2010)	5221.23 (5221.23)
9.	Northern Region System Strengthening Scheme-V(1222 CKM) Northern Region	[400 KV]	6/2006	6/2009 (6/2009)	721.25 (721.25)
10.	Transmission System Associated with Sasran Ultra Mega Power Project	765 kv × 7 + 400 kv × 2	12/2008	12/2012(12/2012)	7031.88(7031.88)

Shipping & Ports

There were 50 projects in Shipping & Ports sector under implementation as on 31.3.2009. Of these, 6 were in Mega category and 10 in Major

category. There were 3 projects of CPSEs costing Rs. 500 crores and above. These belonged to Shipping Corporation of India. Detail of the Project is given as under:-

Shipping Corporation of India (SCI)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Acquisition of Very Large Crude Carriers (VLCC), Maharashtra	(2 ×300000 DWT)	10/2005	9/2009 (10/2009)	1136.08 (1136.08)
2.	Acquisition of LR-1 Tankers Mumbai, Maharashtra	6 No. of (60,470 DWT)	10/2006	(7/2010)(7/2010)	1658.59(1658.59)
3.	Acquisition of Handymax Bulk Carriers Mumbai, Maharashtra	6 No. of 57000 DWT Carriers	11/2007	3/2012(3/2012)	1061.96(1061.96)

Steel

There were 55 projects under implementation in the Steel sector as on 31.3.2009. Of these, 6 were in Mega category and 23 in Major category. There

were 7 Projects of CPSEs costing Rs. 500 crores and above. These projects belonged to SAIL and RINL. Detail of the Project is given as under:-

Steel Authority of India Limited (SAIL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore)– Original /Anticipated
1	Rebuilding of Coke Oven Battery No. 1 &2, Jharkhand		10/2007	4/2010 (10/2010)	500.90 (500.90)
2.	Expansion of Salem Steel PlantTamil Nadu		1/2008	3/2010	1902.00(1902.00)

3.	Expansion of IISCO Steel Plant Burnpur, West Bengal	2/2008	7/2010(7/2010)	14443.00(14443.00)
4.	Expansion of Rourkela Steel Plant Rourkela, Orissa	9/2008	2/2011(4/2011)	6133.00(6133.00)
5.	Expansion of Bhilai Steel Plant Bhilai, Chattisgarh	9/2008	5/2011(11/2011)	5185.00(5896.00)
6.	Expansion of Bokaro Steel Plant Jharkhand	1/2008	12/2010(12/2010)	3316.00(3316.00)

Rastriya Ispat Nigam Limited (RINL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Expansion of RINL/VSP from 3 MTPY-6.3 MTPY of Liquid Steel, V'Patnam, Andhra Pradesh	[3.3 MT]	10/2005	10/2009 (6/2011)	8692.00 (12229.00)

Telecommunication

There were 46 projects under implementation in the Telecommunication sector as on 31.3.2009. Of these, 3 were in Mega category and 34 in Major

category. There were 7 Projects of CPSEs costing Rs. 500 crores and above. These projects belonged to BSNL and MTNL. Detail of the Projects is given as under:-

Bharat Sanchar Nigam Limited (BSNL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original /Anticipated	Cost(Rs. in crore)– Original/Anticipated
1.	GSM Network Expansion, Ph-IV(Punjab), Punjab	[900 K Lines]	5/2004	6/2005	508.63 (508.63)
2.	GSM Expansion, Ph.-IV (B), Maharashtra	13,50,000 Lines	7/2005	3/2006 (3/2009)	1174.75(1174.75)
3.	GSM equipment of 3125 K Lines (2G) & 625 Lines(3G), Phase-V,1 Maharashtra	[3125K Lines]	9/2008	9/2009(9/2009)	1799.94(1799.94)
4.	GSM equipment of 900 K Lines (2G) & 300K Lines (3G)-Phase-V Rajasthan	[300K Lines)	6/2007	12/2008[8/2009]	601.49(601.49)
5.	Project NIB-II Broadband Multiply	32135 Broadband Connection	7/2007	3/2009(3/2009)	1008.00(1008.00)
6.	GSM equipment of K Lines (2G) & 325 Lines, Phase-V, 1 Madhya Pradesh	1625K Lines & 325 K lines	6/2008	8/2009(8/2009)	908.30(908.30)

Mahanagar Telephone Nigam Limited (MTNL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning– Original/Anticipated	Cost(Rs. in crore)– Original /Anticipated
1.	Expansion of 450K GSM Lines o 2.5 GSM and Validation Equip.Delhi	(750K Lines)	2/2007	10/2007(7/2009)	741.77(278.16)

CPSEs UNDER CONSTRUCTION

There are some Central Public Sector Enterprises (CPSEs), which are at construction stage and have yet to go on regular production on a commercial scale. A large majority of these CPSEs are subsidiary companies with small authorized and paid-up capital. Some of these subsidiary companies are 'shell companies' which have been set up to facilitate the establishment of Ultra Mega Power Projects (UMPP) in the different parts of the country. The objective of 'shell companies' is to develop large capacities of power generation in India and to bring in the potential investors in UMPP after developing such projects to a stage having major clearances. Power Finance Corporation Limited was selected as the Nodal Agency for the development of these projects under the technical guidance of CEA.

Amongst the larger CPSEs in this group (of CPSEs 'under construction') during the year have been Bharat Petroresources Ltd, Bharatiya Nabhikiya Vidyut Ltd, Bharatiya rail Bijlee Ltd, Dedicated Freight Corridor Corporation of India Limited and Sethusamudram Corporation Ltd.

As on 31.3.2009, there were altogether 33 CPSEs 'under construction'. Eight CPSEs 'under construction' were newly added to the list during the financial year 2008-09. As on 31.3.2008, in comparison, there were 28 CPSEs in construction stage. Out of these, three (3) enterprises have been excluded from discussions in the paragraphs below due to reasons mentioned below:

Name of enterprise	Reason of exclusion
Jharkhand Integrated Power Limited	Transferred to Reliance Power Ltd.
Byrnihat Transmission Company Ltd.	Closed by the holding Company, Power Grid Corporation of India Ltd.
PFC Consulting Limited	Became operational during 2008-09.

While the total authorized capital of these 33 CPSEs stood at approximately Rs.14,318 crores as on 31.03.2009, the paid up capital amounted to Rs.654.92 crores. Brief detail of these enterprises showing their status, date of incorporation as well as their authorized and paid-up capital is given below:

Table 11.1
CPSEs, Under Construction

S. No.	CPSE	Status	Year of incorporation	Authorised Capital (Rs. in lakh)	Paid-up capital (Rs in lakh)
1.	Air India Engineering Services Ltd.	Subsidiary	2004	1000	5
2.	IAL Airport Services Limited	Subsidiary	2003	1800	100
3.	Akaltara Power Ltd.	Subsidiary	2006	5	5
4.	Bharat Petroresources Ltd.	Subsidiary	2006	100000	50255
5.	Bharat Petroresources JPDA	Subsidiary	2006	100	5
6.	Bharatiya Nabhikiya Vidyut Nigam Ltd.	Independent Company	2003	500000	170715
7.	Bharatiya Rail Bijlee Company Ltd.	Subsidiary	2007	160600	25000
8.	Bihar Drugs & Organic Chemicals Ltd.	Subsidiary	1994	200	—
9.	Bokaro Kodarma Maithon Transmission Company Ltd.	Subsidiary	2007	5	—
10.	Brahmputra Cracker & Polymer Ltd.	Subsidiary	2006	120000	5
11.	Coastal Karnataka Power Ltd.	Subsidiary	2006	5	5

12. Coastal Maharashtra Mega Power Ltd.	Subsidiary	2006	5	5
13. Coastal Tamil Nadu Power Ltd.	Subsidiary	2007	5	5
14. CREDA – HPCL Biofuel Ltd.	Subsidiary	2008	2000	1058
15. Dedicated Freight Corridor Corporation of India Limited	Independent Company	2007	400000	25823
16. East-North Interconnection Co. Ltd.	Subsidiary	2007	5	–
17. GAIL Gas Limited	Subsidiary	2008	20000	–
18. Ghogarpalli Integrated Power Company Ltd.	Subsidiary	2009	5	5
19. IL Power Electronics Limited	Independent Company	2000	100	2
20. Indian Vaccine Corporation Ltd.	Subsidiary	1988	5000	1878
21. Instrumentation Control Valves Ltd.	Independent Company	2000	425	3
22. Instrumentation Digital Controls Ltd.	Independent Company	2000	125	2
23. Jagdishpur Paper Mills Ltd.	Subsidiary	2008	10000	–
24. Kanti Bijlee Utpadan Nigam Limited	Subsidiary	2006	10000	10
25. NLC Tamil Nadu Power Ltd.	Subsidiary	2006	125	2
26. North Karanpura Transmission Co. Ltd.	Independent Company	2007	5	5
27. NTPC Hydro Limited	Subsidiary	2003	5	5
28. Orissa Integrated Power Limited	Subsidiary	2006	5	5
29. Punjab Ashok Hotel Company Limited	Subsidiary	1998	300	250
30. REC Transmission Projects Co. Ltd.	Subsidiary	2006	5	5
31. Sakhigopal Integrated Power Company Ltd.	Subsidiary	2009	5	5
32. Sethusamudram Corporation Ltd.	Independent Company	2004	100000	65200
33. Talcher-II Transmission Co. Ltd.	Independent Company	2007	5	5
Total			1431840	65492

A brief account of each of these enterprises and the projects being executed by them are discussed below:

1. Air India Engineering Services Ltd.

Air India Engineering Service Limited (AIESL), a wholly owned subsidiary company of the erstwhile Air India Ltd, was incorporated on 11 March 2004. The main objectives of the Company as per the Memorandum & Articles of Association are given below:

To carry on the business and activities of providing engineering services to aircraft and the services of repairing, maintaining, servicing and refurbishing aircraft and all components and parts thereof.

To carry on the business and activities of providing engineering services or aircraft engines, auxiliary power units and the services of repairing, maintaining, servicing and refurbishing aircraft engines, auxiliary power units and all parts and all components thereof.

To carry on the business of providing engineering services, repairing and maintaining services of any nature for aircraft, flying machines, helicopters, dirigibles, balloons, aerial conveyances and their engines, auxiliary power units and all components and parts of any of the foregoing in any part of the world.

However, pending Government approval, no business transactions has taken place till date.

2. IAL Airport Services Limited

IAL Airport Services Limited was incorporated on 27 August 2003. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 1800 lakh and Rs. 100 lakh respectively. However, pending Government approval, the Company is yet to commence business.

3. Akaltara Power Limited (APL)

Akaltara Power Limited, a wholly owned subsidiary of PFC Ltd. has been established to develop an Ultra Mega Power Project (UMPP) in the State of Chhattisgarh. The authorized and paid up capital of the Company as on 31.3.2009 was Rs. 0.05 crore.

The Government of Chhattisgarh has recommended the site for the project in villages Salka and Khaaria, in district Surguja. The recommended site has been cleared by CEA also. The norms of allocation of power from the project has been finalized by the Ministry of Power (Government of India) on 3.11.2008. The beneficiaries from the project are the states of Chhattisgarh (2000 MW), Maharashtra (1000MW), Madhya Pradesh (425 MW), Gujarat (275MW), Goa (200MW), Daman & Diu (50MW) and Nagar Haveli(50 MW). The application for allocation of Pindrakhi & Puta Parogia coal blocks, has been submitted by the Company.

The State Government of Chhattisgarh confirmed that 135 MCM of water required for the Power Plant can be made available from Rehar River after constructing the requisite hydro structures on the river. This cost shall however, be adjusted against the water charges payable by the projects.

M/s Desein has been appointed as the Technical Consultant for the project. The terms of reference (TOR) for EIA studies was approved by Expert Advisory Committee on 13.3.2009. The

draft report for Rapid EIA has also been submitted. Technical studies for the project would begin after Section 4 notification. Application for Open-Access for Transmission has also been submitted to PGCIL on 11.2.2009. The Company spent an amount of Rs.132.44 lacks in the development of project during the year, which has been transferred to capital-work-in-progress.

4. Bharat Petroresources Ltd. (BPRL)

Bharat Petroresources Ltd. (BPRL) was incorporated in October 2006 as a wholly owned subsidiary of Bharat Petroleum Corporation Ltd. (BPCL) to implement BPCL's projects in Exploration and Production of oil/gas energy resources. The authorized and paid up capital of the Company as on 31.3.2009 was Rs. 1000 crore and Rs. 502.55 crore respectively.

As on 31.3.2009, BPRL has participating interests in 26 exploration blocks in Consortium with various partners in India and abroad. BPRL has participating interest in these blocks directly and through wholly owned subsidiary companies. Out of these 14 blocks, nine are located in India and five in foreign countries.

While the last year had focus on acquisition for exploration acreages, the year 2008-09 was the year predominantly of consolidation and streamlining of operations in Brazil, as well as venturing into unexplored/virgin basin in Mozambique. The award of 'Joint operatorship' with Hindustan Oil Exploration Corporation Ltd. in the Rajasthan block during the NELP VII bid round was another milestone for BPRL.

5. Bharat Petroresources JPDA

Bharat PetroResources JPDA Ltd was incorporated as a wholly owned subsidiary company of Bharat PetroResources Ltd (BPRL). This Company was formed as a Special Purpose Vehicle (SPV) as required under the terms on which the Block JPDA 06-103-East Timore in Joint Petroleum Development Area (JPDA) between East Timore and Australia, was awarded to the Consortium led by Oilex Ltd in which BRPL was a member. It is a wholly owned subsidiary of Bharat Petroleum Corporation Ltd.

The Minimum Work Programme Commitment (MWPC) in the block comprises a Primary Term

of exploration phase of 3 years ending 15/1/2010, a Secondary Term of 2 years and a Third Term of another 2 years subsequently. The block is currently in the third year of the Primary Term.

Acquisition for 3D seismic data, covering an area of 2140 sq.km., was carried out during the months of May and August 2008. Simultaneously, the Consortium purchased the processed 3D data covering additional 926 sq.km in the block, which was earlier acquired by the multi-national company Shell. The newly acquired data was processed and merged with the purchased data, which has enabled better interpretation and analysis of the prospects. It is proposed to drill two more wells by end 2009.

6. Bharatiya Nabhikiya Vidyut Nigam Ltd.

Bharitiya Nabhikiya Vidyut Nigam Ltd. (BHAVINI) was incorporated in October, 2003. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 5000 crore and Rs. 1707.15 crore respectively. The Company is responsible for construction, commissioning and operation of 500 MWe Prototype Fast Breeder Reactor Project at Kalpakkam, Tamil Nadu as well as the other Fast Breeder Reactors (FBR) that may come up in future.

The progress of the FBR Project at Kalpakkam is mentioned below :

- Reactor Vault (RV) has been completed up to EL 26.715 m and being released for Safety Vessel (SV) erection.
- The fabricating & erection of upper lateral segments along with Biological Shield Cooling Pipes are completed and the assembly of panels as a single unit for erection is in progress.
- In Reactor Containment Building the part slab at EL 30 m is completed and the Argon Buffer Tank cell Wall is completed upto EL 27 m.
- In Control Building and Electrical Building 1 & 2 the slab at EL 51 m is completed and the slab at EL 37.5 m is in completed for RAD Waste Building. The concreting of Sopendt Sub-Assembly Storage Bay wall is completed at EL 27.4 m.
- In Turbine Building, seven pour of PCC below the TG deck has been completed.

- In D.M. Plant 34/56 nos. of footing pedestal and 15/56 column have been completed up to grade beam level.
- Seawater outfall Channel is completed upto 230 m out of 1600 m. The Shore Protection is completed upto 215 m out of 1700 m and the Tsunami Protection Bund is completed upto 900 m out of 1730 m.
- In the Raw Water, Domestic Water & Service Water Pump House Building, the Foundation Raft is completed.
- In Construction of 230 KV Indoor Switchyard, the GIS Building Columns and the Control Building columns above plinth beam are completed. Tower Foundation excavation and PCC are completed.
- Fabrication of Safety Vesel with Thermal Insulating Panels, Sodium Storage⁴ Tanks and Argon Buffer Tanks has been completed.
- The fabrication of Main Vessel is nearing completion.

7. Bhartiya Rail Bijlee Company Limited

The Company was incorporated on 22nd November, 2007 as a subsidiary company of NTPC Ltd. It is a joint venture (V) with the Ministry of Railways. Its main objective is to undertake various activities related to setting up of the 1000 MW Coal Based Thermal Power Project (4x250 MW) at Nabinagar (Arangabad) in Bihar, and thereafter undertake Operation and Maintenance (O&M) for meeting traction and non-traction requirement of electricity of Railways and others.

The authorized and paid up capital of the Company as on 31.3.2009 was Rs. 1606 crore and Rs. 250 crore respectively. NTPC Limited presently holds 74% and the Ministry of Railways has 26% equity stake in the Company.

The Topographic Survey, Hydrographic Survey and Geo-tech investigations for priority area for the project has been completed during the year. The survey work of MGR Track has been completed by RITES Limited. The Borewell has been done for providing water to project activities. Acquisition of land is in advanced stage. Main plant civil and

infrastructure works for the project is under the process of award. Widening and strengthening of approach road, including culverts and bridges, from Barun to Nabinagar is under final process of award by the Road Construction Department of Government of Bihar.

For supplying power to the project erection activities, deposit work of 33kV line construction power has been started by Bihar State Electricity Board. Porta Cabin available at the site is being used as site office as a measure to contribute in the development activities of nearby area and villagers,

Public Information Centre and Mobile Health Clinic have also been started at site. Rehabilitation Action Programme has been finalized for the villages and submitted to the District Magistrate, Aurangabad.

8. Bihar Drugs & Organic Chemicals Limited (BDOC)

Bihar Drugs & Organic Chemicals Limited (BDOC) was set up in 1994 as a wholly owned subsidiary of the Indian Drugs & Pharmaceuticals Limited to manufacture Acetic Acid and other related products. The authorized capital of the Company as on 31.3.2009 was Rs. 2 crore. The Company's Registered and Corporate/Head Office as well as the manufacturing unit are located at Muzaffarpur, Belagarh (Bihar). As on 31.3.2009, there were 14 employees on the roll of the Company. There is, however, no production activity since 1996.

9. Bokaro Kodarma Maithon Transmission Company Ltd.

Bokaro Kodarma Maithon Transmission Co. Ltd. (BKMTCL), a wholly owned subsidiary of Power Finance Corporation Ltd. was incorporated on 31st January, 2007 for selection of Transmission Service Provider for developing "Evacuation System for Maithon RB (1000 MW), Koderma (1000 MW) and Bokaro Extension (500 MW)". The SPV has been formed to undertake preliminary survey work, identification of route, preparation of survey report, conduct the bidding process, etc.

The Ministry of Power (Government of India) withdrew the project from PFC due to its linkage with the Common Wealth Games, and directed the Power

Grid Corporation of India Ltd. for taking up the said project. As BKMTCL has been established by PFC for specific project, it has been decided to strike off the name of the Company from the record of Registrar of Companies.

10. Brahmaputra Cracker And Polymer Limited (BCPL)

Brahmaputra Cracker and Polymer Limited (BCPL), was incorporated on 08.01.07 as a subsidiary of GAIL with equity participation from GAIL (70%), OIL(10%), Govt. of Assam(10%) and NRL(10%), for setting up 2,80,000 MT Gas Cracker Project at Lepetkata, District Dibrugarh, Assam. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 1200 crore and Rs. 0.05 crore respectively.

Necessary environmental and pollution clearances from Government of Assam and Ministry of Environment & Forests have been obtained for the project. The Certificate of Commencement of Business for BPCL was issued by ROC, Shillong on 12.9.2007. The gas supply agreement with OIL and Term Sheet of Naphtha supply with NRL was signed on 19.9.2007. The gas supply agreement with ONGCL has also been signed on 15.10.2007. With the award of PMC jobs to EIL, various activities have picked up. Selection of Technology Licensors has also been completed and License agreements have been signed.

The work of barbed wire fencing, topographical and geotechnical surveys, pipeline and hydrological route survey, power construction site has been completed.

The complex has been configured for a production capacity of 220,000 tons per annum of Ethylene and 60000 tons per annum of propylene with natural gas and naphtha as feed stock.

11. Coastal Karnataka Power Limited

Coastal Karnataka Power Limited was incorporated on 10th February, 2006 under the Companies Act, 1956 as a wholly owned subsidiary of Power Finance Corporation Limited, for the development of Tadri Ultra Mega Power Project in the state of Karnataka. The authorized and paid up

capital of the Company as on 31.3.2009 was Rs. 0.05 crore respectively.

The Govt. of Karnataka informed that the Tadari site is not feasible considering the resistance from the local people. The State Govt has therefore identified two more possible project sites at Kudug/Mannur at Bijapur District and Port site at Karwar in Goa which is 320-350 Km away from the sites for import of coal. With the addition of one more berth at Goa Port as already planned, the port can handle 6-6 MTPA of Coal which will be adequate to cater to the requirement of 2000 MW capacity power project. After doubling of the rail track from Goa to Hospet, 6 to 7 rakes of coal can be transported from Momugao port to the project site. Project development activities will be initiated after site identification. The Company, so far, has spent an amount of Rs.73.31 lacks in the development of project which has been transferred to capital work in progress. During the year under review, the Company had not started its commercial activities.

12. Coastal Maharashtra Mega Power Limited

Coastal Maharashtra Mega Power Ltd. (CMMPL), a wholly owned subsidiary, has been established by Power Finance Corporation Ltd. to facilitate the development of Ultra Mega Power Project in Maharashtra. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 0.05 crore respectively.

The Govt. of Maharashtra suggested various sites for development of UMPP, but none of them could be finalized due to local resistance. The project will use imported coal, to be unloaded in a captive port. Maritime, the Consultant appointed by Mahavitrans, has submitted feasibility report for development of port.

Topographic survey and preliminary studies required to initiate the bidding process will be taken up after the local agitation issued is resolved and the project and port site is made available by the State Govt.

The Company has, so far, spent an amount of Rs.108.18 lacs in the development of project which has been transferred to capital-work-in-progress. During the year under review, the Company had not started its commercial activities.

13. Coastal Tamil Nadu Power Limited

To take up the developmental work for Ultra Mega Power Projects (UMPP), wholly owned subsidiaries have been established by Power Finance Corporation Ltd. One of such subsidiary is Coastal Tamil Nadu Power Ltd (CTNPL) for setting up of an UMPP in Tamil Nadu. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 0.05 crore respectively.

CTNPL, a wholly owned subsidiary of Power Finance Corporation Ltd., has been set up in 2007 to undertake preliminary studies for the Ultra Mega Power Projects (UMPP) in Tamil Nadu and to obtain necessary clearances and tie up inputs including water, land and power selling arrangements etc., for proposed power project prior to award of the project to the successful bidder.

Institute of remote sensing has been appointed for carrying out topographic survey at the project site which is nearing completion. Technical studies have been awarded to M/s. WAPCOS. Various studies are in progress. Ministry of environment & forests has approved TOR for main Plant Application for port site. Application for land acquisition is yet to be issued by government of Tamil Nadu.

The Company has, so far, spent Rs. 316.12 lacs on the development of the project that was transferred to capital-work-in-progress. During the year under review Company had, however, not started commercial activities.

14. Crede HPCL Biofuel Limited

In pursuit of promoting alternate fuels, CREDA-HPCL Biofuel Ltd was incorporated on 14.10.2008 as a subsidiary company of Hindustan Petroleum Corporation Ltd. with equity shareholding of 74% by HPCL and 26% by Chattisgarh State Renewable Energy Development Agency (CREDA). CHBL would undertake cultivation of jatropha plants on 15,000 hectares of land leased by the Government of Chattisgarh. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 20.00 crore and Rs.10.58 crore respectively.

This Company is in the process of acquiring land on lease from Government of Chattisgarh (through CREDA) for cultivation of jatropha plants. HPCL will

have exclusive rights on the entire produce of jatropha seeds and for producing marketing biodiesel and bi-producers from the produce.

15. Dedicated Freight Corridor Corporation of India Ltd

DFCCIL was incorporated on 30.10.2006 and received the Certificate of Commencement of Business on 03.11.2006 from the Registrar of Companies NCT of Delhi & Haryana. DFCCIL is a Government company under the provisions of Section 617 of the Companies Act, 1956 with 100% shareholding held by Government of India. As on 31.3.2009, the Authorized Share Capital of the Company was Rs.4000 crores and the paid up Share Capital of the Company was 258.23 cores

DFCCIL has been created as a Special Purpose Vehicle (SPV) to undertake planning and development, mobilization of financial resources, construction, maintenance and operation of Dedicated Freight Lines covering about 3236 route kms on two Corridors-Eastern Corridor (1767 kms) from Ludhiana to Dankuni and Western Corridor (1469 kms) from Jawahar Lal Nehru Port Mumbai to Tughlakabad/Dadri.

As required by the Ministry of Railways, such Corridors shall be constructed in a manner that will ensure (a) optimal time and cost for each unit of freight movement; (b) application of latest technologies in the field of Railway Infrastructure and (c) such construction is in line with the government policies of promoting environmental conservation and development and (d) adoption of technologies that will reduce life cycle cost and unit cost of O&M.

Inauguration of the construction work of Eastern Dedicated Freight Corridor was done on 10.2.2009 for Karwandiya to Gankhwaja. Sonnagar-Mughalsarai section Work has commenced on both the corridors.

As on 31.3.2009, there were 136 employees on the roll of the Company.

16. East-north Interconnection Company Limited

East North Interconnection Company Ltd. was incorporated on 1st February, 2007 under Companies Act, 1956 as a wholly owned subsidiary of Power

Finance Corporation Limited. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 0.05 crore respectively.

Various 'shell companies' have been set up as wholly owned subsidiaries of Power Finance Corporation Limited. East-North Interconnection Company Limited (ENICL) is one such subsidiary for the development of Transmission system for enabling import of NER/ER surplus Power NR". Shell companies are formed to undertake preliminary survey work, identification of route, preparation of survey report initiation of process of land acquisition, initiation of process of seeking forest clearance, if required and to conduct bidding process, etc.

However, an amount equal to Rs.107.74 lacs has been spent in the development of project, which has been transferred to capital-work- in- progress.

17. Gail Gas Limited

The Company was incorporated on 27.5.2008 with the objective of focusing on implementation of City Gas Distribution projects. It has an authorized capital of 200 crore. The Company will take up Distribution and Marketing of CNG as fuel, for vehicles (intercity as well as intra city), Piped Natural Gas for domestic/commercial/industrial purposes and Auto LPG as fuel for transport vehicles in the various cities of India and abroad. The Company will also take up investment in and setting up of infrastructure, in the various cities of India and along the national highways for building CNG corridors It will also carry out allied retail business activates of CNG/ Auto LPG retail outlets within the cities and along the highways.

The Company will also take up the CNG Corridor Project for setting up CNG stations along the highways. GAIL Gas has identified 230 cities contiguous to existing and propos pipelines for City Gas Distribution in phased manner. In the first phase, seventeen cities have been identified to be taken up though its subsidiary company with authorization from Petroleum and Natural Gas Regulatory Board.

In the first round of the bidding process, the Company has been assigned the implementation of CGD project in four cities, namely, Sonapat, Kota, Dewas and Merrut.

As on 31.3.2009, there were 24 employees on the roll of the Company.

18. Ghogarpalli Integrated Power Company Ltd.

The Ghogarpalli, Dipside of Ghogarpalli and Chaturdhara coal blocks have been earmarked for developing a power projects on the pattern of UMPPs in Orissa with the stipulation that the State Government shall provide necessary support in acquiring land, assistance in R&R measures, allocation of water & environment and forest clearances as well as necessary recommendation for other clearances. Accordingly, it was decided that PFC will take appropriate action for establishing SPV for the development of a power project linked to this coal block on the pattern of UMPPs and carry out the bidding process along with necessary preliminary site investigation activities.

Ghogarpalli Integrated Power Company Ltd has been established by PFC Consulting Limited (a wholly owned subsidiary of PFC) on 22.5.2008 to undertake preliminary studies and to facilitate tie-ups of inputs, linkages and to obtain necessary clearances for the projects such as water, land, environment clearance and power selling arrangement etc. for proposed power project prior to award of the project to the successful bidder. The commencement of business was obtained on 16.4.2009.

19. IL Power Electronics Limited

The Company IL Power Electronics Limited (ILPEL) was incorporated on 12.9.2000 with the objective to take over the business of Jaipur Unit of Instrumentation Ltd., Kota. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs.1.00 crore and Rs.0.02 crore respectively. Since no expression of interest was received for the Jaipur Unit, it was integrated with main unit at Kota during 2002-03, as per the directives of Department of Heavy Industry. It is a shell company with no unit branch, plant machinery and manpower. The Company till date has carried out no commercial activity. The Company (ILPEL) is to be wound up on receipt of GOI approval. GOI has been requested for permission for winding up of the Company.

20. Indian Vaccine Corporation Ltd.

Indian Vaccines Corporation Ltd was incorporated in March 1989 as a joint venture (JV)

company, promoted by Pasteur Merieux Serium & Vaccines (PMSV), France, Indian Petrochemicals Corporation Ltd (OPCL) and Department of Biotechnology (Govt of India) with a paid up capital of Rs.18.78 crores, with the objective of manufacturing vaccines based on Verocell Technology to be supplied by PMSC, France. The Company came into inception after a joint venture (JV) agreement was signed on 1st February, 1989. The main objective of the Company was to manufacture Injectable Polio Vaccines (IPV) to be incorporated in the mass immunizations programme of Govt. of India. However, IPV was not approved by W.H.O. As a result, the project was put on "HOLD" in February 1992.

The Govt. of Haryana, acquired 108.18 acres of land in Manesar for D.B.T., which was later transferred to IVCOL (after its incorporation) on making full payment. The construction activities started at the site thereafter. P.M.S.V. subsequently got disinterested in the project and expressed to exit the joint venture. Efforts were made to rope in 'Strategic partner' as part of the restructuring exercise. The disinvestment of IVCOL, moreover, could not be materialized. Hence, the promoters decided to lease balance 69.4 acres of land to Reliance Life Sciences Pvt Ltd (a group co. of M/ RIL) for setting up a Super Specialty Hospital and Life Science and Research and Development Centre (and other related facilities) at this site. The lease agreement in this regard has been signed on 31.10.2008. As on 31.3.2009, there were 5 employees on the roll of the Company.

21. Instrumentation Control Valves Limited

Instrumentation Control Valves Limited (ICVL) was incorporated on 16.11.2000 with the objective to take over the business of Palakhad Unit of Instrumentation Ltd., Kota. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 4.25 crore and Rs. 0.03 crore respectively.

It is a 'shell company' with no unit, branch, plant/machinery and manpower. The Company till date has carried out no commercial activity. As per Modified Revival Scheme of the holding company Instrumentation Limited, the Company ICVL is to be wound up on receipt of GOI approval. A petition for winding up of the Company has been filed with the Registrar of Companies, Kerala.

22. Instrumentation Digital Controls Ltd.

The Company Instrumentation Digital Controls Limited (IDCL) was incorporated on 12.9.2000 with the objective to take over the business of PDDC Unit of Instrumentation Ltd., Kota. The authorized capital and paid up capital of the Company as on 31.3.2009 was Rs. 1.25 crore and Rs. 0.02 crore respectively. Since no expression of interest has been received for the P-DDC Unit, the manufacturing facilities of P-DDC Unit was integrated with the main Unit at Kota during 2002-03. It is a 'shell company' with no unit branch, plant machinery and manpower. The Company till date has carried out no commercial activity. The Company, Instrumentation Digital Controls Ltd. is to be wound up on receipt of GOI approval. The Government of India has been requested for permission for winding up of the Company. A petition for winding up of the Company has been filed with the Registrar of Companies, Rajasthan.

23. Jagdishpur Paper Mills Limited

Jagdishpur Paper Mills Limited was incorporated on May 8, 2008 as a subsidiary of Hindustan Paper Corporation Ltd.. The Company will obtain Certificate of Commencement of Business before commencing the business. The matter of Land Allotment is being taken up with Uttar Pradesh State Industrial Development Corporation. Finalization of the Plan Layout, and freezing of Technical parameters will be decided after land allotment.

The Company is a subsidiary of HPC by virtue of HPC exercising control over the Management of the Company and not due to holding the majority shares in the Company (since the shares are yet to be allotted). There are no employees on the rolls of the Company.

24. Kanti Bijlee Utpadan Nigam Limited

The Company has changed the name from Vaishali Power Generating Company Limited to Kanti Bijlee Utpadan Nigam Limited w.e.f. 10.04.2008. In order to give the correct impression of location of the plant, the name of the Company has been changed to Kanti Bijlee Utpadan Nigam Limited. It is a subsidiary company of NTPC Limited. The authorized capital and paid up capital of the Company as on 31.3.2008 was Rs.100 crore and Rs.0.10 crore respectively.

The Company has test synchronized unit #2 of 2×110 MW of Muzaffarpur Thermal Power Station on 17.10.2007. The coal firing for Unit #2 had started from 29.01.2008. Since then the unit is under stabilization, and the infirm power generated from the Unit is being supplied to Bihar State Electricity Board. Bharat Heavy Electricals Limited (BHEL) has taken up R&M of Unit #1. The Company has also taken up expansion of Muzaffarpur Thermal Power Station with installation of 2×250 MW additional units for which the Board has approved the Feasibility Report.

During the Financial Year 2007-2008, the Company has incurred an expenditure of Rs. 53,350 which has been charged to the Profit and Loss Account. Under the "Rashtriya Sam Vikas Yojana" of Government of India, the Company has received grant of Rs.150 million during the year from the Government of India. The Company has also taken loan of Rs.200 million from the holding Company i.e. NTPC Limited.

25. NLC Tamil Nadu Power Limited

NLC Tamil Nadu Power Limited was set up as a subsidiary company of Neyveli Lignite Corporation Ltd. in 2006. It is a coal based 2 × 500 MW Power Project at Tuticorin. Unit I is to be implemented within 46 months from the date of sanction and Unit II within 51 months from the date of sanction. The authorized capital and paid up capital of the Company, as on 31.3.2009 was Rs.1.25 crore and Rs.0.02 crore respectively.

The foundation stone of the Company was laid on 28.2.2009. Tuticorin Port Trust has allocated 133 hectare of land required for the project, on long-term lease basis. In order to facilitate erection, relocation of sheds and rerouting of underground pipelines of other companies are in process. Coal link for the project has been established with Mahanadi Coalfields Ltd. In respect of main packages of Steam Generator and ESP and Turbine Generator Letter of Award has been issued to BHEL. The Civil work of the project is in process. The Project Consultancy Contract has been awarded to MECON Ltd.

26. North Karanpura Transmission Company Limited

North Karanpura Transmission Company Limited was set up in the year 2007. The authorized

and paid up capital as on 31.3.2009 was Rs.0.05 crore. Since the Company is yet to commence its commercial operations, no Profit & Loss Account was prepared for the second financial year ending 31st March, 2009. In place thereof, a statement of incidental expenditure during Construction Period was prepared. A total expenditure of Rs.1.19 crore was incurred during the period year ended 31.03.2009.

27. NTPC Hydro Limited

NTPC Hydro Limited was incorporated in the year 2002 as a wholly owned subsidiary of NTPC Limited, with a view to develop small & medium sized Hydro Electric Projects. The authorized and paid up capital, of the Company, as on 31.3.2009 was Rs. 0.05 crore. The Company is presently executing two projects namely, Lata-Tapovan Hydro Electric Project (171 MW), located in Chamoli District of Uttrakhand and Rammam Hydro Electric Project, Stage-III (120 MW) located in Darjeeling District of West Bengal.

Lata-Tapovan HEP is being developed as a regional power station with 12% free power to the State of Uttrakhand. In respect of Lata-Tapovan Hydro Electric Project (171 MW), the Company had received all statutory clearances and the land acquisition activities had been completed. The Lata-Tapovan Hydro Electric Project (171 MW) is scheduled to be commissioned during 12th Plan period.

Rammam Hydro Electric Project, Stage-III (120 MW) is being developed for the benefit of States of West Bengal and Sikkim. An interstate agreement had also been signed between the State of Sikkim & West Bengal in this regard. In respect of Rammam Hydro Electric Power Project, the Company has already received all statutory clearances. The Company has received physical possession of land required for the project and mutation work will be completed soon.

Infrastructure development activities at site like construction of bridges and approach roads etc. has been started. Further, the work for award for Civil & Hydro Mechanical Works is envisaged to be made

during 2009. Rammam Hydro Electric Power Project is scheduled to be commissioned during the 12th Plan period.

As on 31.3.2009, there were 33 employees on the roll of the Company.

28. Orissa Integrated Power Limited

Orissa Integrated Power Limited was set up in the year 2006 as a subsidiary company of Power Finance Corporation. The authorized and paid up capital as on 31.3.2009 was Rs. 0.05 lakh. The Central Electricity Authority has selected the land in district Sundergarh, and requested Government of Orissa to furnish the consent letter for the selected site.

The Water Resources Department, Govt. of Orissa has confirmed water linkage from Hirakud reservoir and advised OIPL to furnish the necessary undertaking for bearing the cost of development of storage scheme.

The application for determining the Terms of Reference (ToR) for obtaining the prior environmental clearance from MoEF was submitted on 6.2.2009. The site of the project is yet to be decided. Application for Land Acquisition for private land and Alienation for Govt. land was submitted to M/s. IDCO on 3.6.2009.

An amount of Rs.193.36 lacs has spent on the development of project, which, has been transferred to capital work in progress. During the year under review, the Company has, however, not started its commercial activities.

29. Punjab Ashok Hotel Company Limited

Punjab Ashok Hotel Co. Ltd. is a joint venture (JV) between India Tourism Development Corporation Limited and Punjab Tourism Development Corporation Ltd. It was incorporated on 11th November, 1998. The authorized and paid up capital of the Company as on 31.3.2009 was Rs.3.00 crore and Rs.2.50 crore respectively. The equity contribution is in proportion of 51:49 between Indian Tourism Development

Corporation and Punjab Tourism Development Corporation Limited respectively. The registered office is located in Chandigarh. The unit is located at Anandpur Sahib in the State of Punjab.

The main objectives of the Company are (a) to own, manage, construct-purchase and operate hotels, restaurants, motels etc and (b) to establish, manage transport unit etc. for promoting tourism in Punjab.

30. REC Transmission Projects Company Limited

The Government of India initiated a scheme in 2006-07, which that involved inviting private sector investment in major transmission projects. The scheme entailed private developers eventually becoming transmission service providers on “Build, Own and Operate” basis. Out of the 14 projects identified under this scheme, a subsidiary company of REC was set up as Bid Process Coordinator for two of the projects i.e. North Karanpura Transmission System and Talcher Augmentation Transmission System. REC set up a separate subsidiary company by name “REC Transmission projects Company Limited” for this purpose. These SPVs will be merged with the Transmission Service Provider (TS) of the Transmission System after the developer is granted a license by the CERC The authorized and paid up capital of the Company as on 31.3.2008 was Rs. 0.05 lakh.

RECTPCL has taken up the task of selection of developer for the two transmission projects entrusted to REC. Technical Consultants and Bid Process Consultants to assist RECTPCL in the process have already been appointed.

31. Sakhigopal Integrated Power Company Ltd

The objective of Ultra Mega Power Projects (UMPPs) is to develop large capacities of power generation in India, and to bring in the potential investors after developing such projects to a stage having major clearances. Power Finance Corporation

Limited was selected as the Nodal Agency for the development of these projects under the technical guidance of CEA.Sakhigopal Integrated Power Company Ltd has been established by PFC Consulting Limited (as wholly owned subsidiary of PFC) on 21.5.2008 for such purpose. For proposed power project prior to award of the project to the successful bidder, the certificate for commencement of business was obtained on 1.4.2009. The authorized and paid up capital of the Company as on 31.3.2009 was Rs. 0.05 crore respectively.

Coastal sites have been proposed by the Government of Orissa for development of two such UMPP Projects of 4000 MW capacity each. Application for allocation of Coal block in the name of the Company has been filed with the Ministry of Coal Allocation of coal block is expected to be received shortly.

32. Sethusamudram Corporation Limited

The Sethusamudram Ship Channel project was sanctioned at a total cost of Rs.2427.40 crores by Government of India on 01.06.2005, and inaugurated on 2.7.2005. Dredging is the major component of the project accounting for about two third of the project cost. The total length of the channel is 167 Kms. Whereas dredging is required for a length of 89 Km in two stretches, viz. Adam’s Bridge areas and Palk Bay/Palk Strait area involving a total quantity of 82.5 million cum. The designed depth of the channel is 12m below chart datum.

The dredging work for apportion of Palk Strait area, viz. the reach E3-E4 (Word-D), involving a quantity 13.55 Million Cum was initially awarded to M/s. Dredging Corporation of India on nomination basis in June 2005.

The dredging works at Adam’s Bridge was commenced on 11.12.2006. Out of the total quantity of 48.05 M.Cum about 9.52 M.Cum of dredging was completed and due to non-availability of dumping spot within the vicinity, the dredged materials was

allowed to be dumped within the channel alignment where the existing depth was 9 to 12 m. Out of this 9.52 M.Cum of material dredged and dumped, about 5M.Cum is estimated to be re-handled.

Progress/status of the project includes (i) Procurement of Navigational Aids (ii) Procurement of Tugs & Crafts (iii) Procurement of 3 No of 30T BP Tug (iv) Procurement of 2 Nos. of 10T BP Tug (v) Procurement of Hydrographic Survey Launch with Survey equipment (vi) Launching of Procurement of 8 Nos. of FRP Mooring (vii) Launching of Procurement of 6 No. of Diesel Powered Pilot (Viii) Procurement of 5 Nos. of Patrol Crafts, and (ix) introduction of Vessel Traffic Management System

As on 31.3.2009, there were 57 employees on the roll of the Company.

33. Talcher-II Transmission Company Limited

Talcher-II Transmission Company Limited was incorporated in 2007. The authorized and paid up capital of the Company as on 31.3.2009 was Rs.0.05 crore. RECTPCL (Holding Company of Talcher-II Transmission Company Limited) issued Request For Qualification (RFQ) on 06.10.2008. 15 bidders submitted their RFQ proposal for Talcher-II Transmission System which were opened in December, 2008. Six bidders have been issued letters on 08.05.2009 for issuance of RFP based on the short listing done after evaluation of RFQ for the above project. The successful bidders are ESSAR Power, JSW Energy, L & T Transco, Reliance Power, Lanco-Deepak Consortium and Sterlite Technology. Since the Company is yet to commence its commercial operations, no Profit & Loss Account was prepared for the second financial year ending 31st March, 2009.

REVIVAL AND RESTRUCTURING OF SICK/LOSS MAKING CPSEs

12.1 Introduction

Some of the Central Public Sector Enterprises (CPSEs) have been incurring losses continuously for the last several years. The accumulated loss in many of these cases has exceeded their net worth. Sickness in CPSEs has been the continuing concern

of the Government. There has, nonetheless, been significant improvement in the overall condition of these enterprises over the years. In comparison to 105 loss making CPSEs in March, 2002, there were 54 loss making CPSEs in March, 2009 (Table 12.1).

Table 12.1
Loss making CPSEs
(2002–03 to 2008–09)

Year	No. of Loss making CPSEs, during the year	Aggregate Loss, during the year (Rs. in crore)	No. of sick CPSEs*	No. of sick CPSEs**	Accumulated losses of sick CPSEs** (Rs. in crore)
(1)	(2)	(3)	(4)	(5)	(6)
2002–03	105	10972	–	111	76721
2003–04	89	8522	–	100	73487
2004–05	73	9003	81	90	82352
2005–06	63	6845	75	81	83554
2006–07	61	8526	83	74	89064
2007–08	52	10257	78	67	93781
2008–09	54	14424	73	65	85968

Note: *As per the definition of BRPSE ** As per the definition of BIFR.

12.2 Sickness in CPSEs

The reason for sickness varies from enterprise to enterprise. In some cases, the cause of sickness is historical; textile companies which were taken over from the private sector on social consideration for protecting employment of workers in early seventies could not be modernized quickly. British India Corporation, Bird Jute & Exports and NTC belong to this group. Besides these textile companies, there have been other enterprises that were taken over from the private sector but could not be modernized. These include engineering and refractory enterprises like Andrew Yule & Co, Bharat Wagons & Engineering, Biecco Lawrie, Praga Tools, Burn Standard, Braithwaith & Co., Richardsan and Crudass Ltd., drug companies like Bengal Chemicals & Pharmaceuticals Ltd., transportation/ shipping companies like Hooghly Dock & Port Engineering Ltd., Central Inland Water

Transport Corporation and consumer goods companies like Tyre Corporation of India and Hooghly Printing Co. Ltd.

The other group of sick companies (other than those taken over) is greenfield companies. These became sick over the years on account of high manpower cost, high cost of production due to inefficiencies and competition from private sector. These include fertilizer companies like Fertilizer Corporation of India, Hindustan Fertilizer Corporation, Pyrites, Phosphates and Chemicals Ltd., chemicals and drugs companies like Indian Drugs & Pharmaceuticals Ltd., Hindustan Insecticides Ltd., and Hindustan Antibiotics Ltd. Some of the loss making companies, such as, the Nagaland Pulp & Paper Company Ltd., Manipur State Drugs & Pharmaceuticals Ltd., and North Eastern Regional Agricultural Marketing Corporation Limited etc, have had macro-economic

objectives to serve like development of backward areas providing remunerative prices to farmers, etc.

In addition to the above reasons, the other problems common to most sick and loss making CPSEs have been adverse market/stiff competition, obsolete technology/ machines, high manpower costs, weak marketing strategies and slow decision making process. Attempts have, therefore, been made to overcome “sickness” in these CPSEs through various policy initiatives. The Statement on Industrial Policy (1991), over the years and other policy pronouncements by the Government have addressed this issue from time to time.

12.3 Strategies for revival/restructuring

Some of the strategies adopted for restructuring/ revival of sick CPSEs are mentioned below:

- (i) Financial restructuring: Financial restructuring involves investment in CPSEs by the Government in the form of equity participation, providing loan (plan/non-plan) grants and/or write-off of past losses as well as changing the debt equity ratio. Measures such as waiver of loan/interest/penal interest, conversion of loan into equity, conversion of interest including penal interest into loan, moratorium on payment of loan/ interest, Government guarantee, sale of fixed assets including excess land, sacrifices by State Government, one-time settlement with banks/financial institutions, etc.
- (ii) Business restructuring: Business restructuring involves change of management hiving off viable units from CPSEs for formation of separate company, closure of unviable units, formation of joint ventures by induction of partners capable of providing technical, financial and marketing inputs, change in product mix, improving marketing strategy, etc. on case to case basis.
- (iii) Manpower rationalization: Salaries and wages are often a major component of cost for an

enterprise. In order to shed excess manpower, CPSEs have often resorted to Voluntary Retirement Scheme (VRS) from time to time. In case of CPSEs found unviable and where a decision has been taken to close the unit, it is the Voluntary Separation Scheme (VSS) that is introduced. Retrenchment of employees is adopted only as the last resort and in exceptional circumstances.

The revival packages granted by the Government amounting to Rs. 5221.65 in 2005-06, Rs. 2438.89 crore in 2006-07, Rs. 769.94 crore in 2007-08 and Rs. 6698.49 crore in 2008-09 has helped these enterprises in a big way in improving their conditions. Some of the sick and loss making enterprises have turned around and recorded profit during the last two years.

12.4 Sick Industrial Companies (Special Provisions) Act, 1985 (SICA)

Net loss in a company means excess of expenditure (including depreciation, interest, taxes, extra ordinary items, prior period adjustments but before providing appropriations to reserves) over operating income. If, however, the enterprise incurs ‘cash loss’, that is ‘net loss’ along with ‘provision for depreciation’, then it is usually considered a fit case for recommending closure.

The CPSEs were brought under the purview of Sick Industrial Companies (Special Provision) Act, 1985 (SICA) which was subsequently amended in 1991 and made effective from 1992. Under the provisions of Sick Industrial Companies (Special Provisions) Act, 1985 (SICA), the industrial CPSEs whose accumulated losses are equal to or have exceeded their net worth, may be referred to the Board for Industrial and Financial Reconstruction (BIFR). The BIFR may either sanction suitable revival/rehabilitation schemes (in case of enterprises which are viable) or recommend winding up/closure (in respect of enterprises considered unviable). During the period of the last seventeen years, that is, 1992-93

to 2008-09, 65 CPSEs have been referred to the BIFR (Annex. 12.1, Table 12.1). The year-wise registration of CPSEs with BIFR is given below :

Table 12.2
Registration of CPSEs with BIFR

Year	No. of CPSE	Year	No. of CPSE
1992	30*	2001	2
1993	2*	2002	3
1994	4*	2003	2
1995	1	2004	4*
1996	2	2005	2
1997	3	2006	1
1998	3	2007	1
1999	3	2008	0
2000	2	2009	0
		Total	65

* This includes the subsidiaries of NTC, which has been registered again in 2008 after merger.

Out of the 65 CPSEs registered with BIFR till 30.6.2009, 3 CPSEs namely Scooters India Limited, Vignyan Industries Limited & North Eastern Regional Agricultural Marketing Corporation Limited, have since been declared 'No Longer Sick' by the Board. This does not include Indian Iron Steel Co. Limited as it has been merged with Steel Authority of India Limited. In addition, Bharat Immunologicals and Biologicals Corporation Limited, Hindustan Salts Limited, Maharashtra Elektros melt Limited, Hindustan Insecticides Limited and Hindustan Organic Chemicals Limited have been dropped from the list of 'sick industrial CPSEs' by BIFR on their net worth becoming positive. Cases of four CPSEs have been declared as 'Non-maintainable' by the Board as either the matter had become time barred for reference to the Board or on account of the net worth of the CPSE becoming positive or the CPSE was found not fulfilling the conditions of being industrial company as defined under SICA or on some other grounds. Moreover, one of these companies, namely, Manipur

State Drugs and Pharmaceuticals Limited has been closed. The status of the 65 sick industrial CPSEs registered with BIFR as on 30.6.2009 is given at Table 12.3.

Table 12.3
Status of CPSEs registered with BIFR

Sl. No.	Particulars	Number
1.	Revival scheme sanctioned	11
2.	Draft Scheme circulated/under ex-amination/under process	14
3.	Declared no longer sick	3
4.	Dropped on net worth becoming positive	5
5.	Dismissed as non-maintainable	4
6.	Winding up recommended and closed	15
7.	Winding up recommended	5
8.	Winding notice issued	1
9.	Sanctioned by AAIFR	1
10.	Failed and re-opened	2
11.	Pending determination of sickness	1
12.	Deregistered with BIFR	3
	Total	65

The BIFR has already disposed of 48 cases of CPSEs either through sanctioning revival schemes (11 cases), or recommending winding up (21 cases) or declaring 'no longer sick' (3 cases) or dropping due to net worth becoming positive (5 cases) or dismissing the cases as non-maintainable (4 cases) (Annex-12.1). The BIFR is yet to take any view on 17 cases of CPSEs.

The process of appointment of Official Liquidator (OL) for winding up of CPSEs has been also slow. The process of sanctioning of revival /rehabilitation schemes has also been slow on account of involvement of multiple agencies, delay in finalization of revival schemes, lack of funds, lack of adequate powers with BIFR, lack of proper monitoring of sanctioned revival schemes, delay in winding up of sick companies, etc.

12.5 Board for Reconstruction of Public Sector Enterprises (BRPSE)

The Government set up the Board for Reconstruction of Public Sector Enterprises (BRPSE) in December, 2004 to advise the Government, inter alia, on the measures to restructure/revive, both industrial and non-industrial CPSEs. The Board comprises a part-time Chairman in the rank of Minister of State, three part-time Non-Official Members and three part-time Official Members including Secretary, Department of Expenditure, Secretary, Department of Disinvestment and Secretary, Department of Public Enterprises (DPE). In addition, Chairman, Public Enterprises Selection Board, Chairman, Standing Conference on Public Enterprises and Chairman, Oil and Natural Gas Corporation Limited are permanent invitees to the meetings of BRPSE. Secretaries to the Government in the Administrative Ministry/Department concerned with the CPSE under consideration by the Board are Special Invitees. There is a full-time Secretary for BRPSE in the level/rank of Additional Secretary to the Government of India. The Board is located in the Department of Public Enterprises (DPE). The DPE provides necessary secretarial assistance to the Board.

- For the purpose of making reference to BRPSE, a company is considered 'sick' if it has accumulated losses in any financial year equal to 50% or more of its average net worth during 4 years immediately preceding such financial year, and/or a company which is a sick company within the meaning of Sick Industrial Companies (Special Provisions) Act, 1985 (SICA). The concerned administrative Ministries/ Departments are required to send proposals of their CPSEs identified as 'sick' for consideration of BRPSE. Other loss making CPSEs may be considered by the Board either suo moto or upon reference by the administrative Ministry, if it is of the opinion that revival/restructuring is necessary

for checking the incipient sickness (incurring loss for two consecutive years) and making the CPSE profitable, keeping the industry specific business environment in view. The Board is expected to make its recommendations within 2 months of the date of receipt of the complete proposal from the administrative Ministry/ Department.

- As per the definition of sick CPSEs given above and the performance evaluation of CPSEs for 2007-08 and previous years, 78 CPSEs were referable to BRPSE. Up to September, 2009, cases of 64 sick CPSEs have been referred to BRPSE; out of which the Board has made recommendations in respect of 58 cases. In addition, the Board has also recommended to the Government to accord "in principle" approval for rescinding of its earlier decision to close the units of Fertilizers Corporation of India (FCIL) and Hindustan Fertilizers Corporation Ltd. (HFCL) and to explore various options for their revival. The Board during the period from November, 2008 to September, 2009 reviewed the status of implementation of revival package sanctioned by Government to 5 CPSEs namely (i) Mineral Exploration Corporation Ltd. (ii) Central Inland Water Transport Corporation Ltd., (iii) Heavy Engineering Corporation Ltd., (iv) Bengal Chemicals & Pharmaceuticals Ltd. and (v) Fertilizers & Chemicals (Travancore) Ltd. and also the status of its recommendations in respect of 3 CPSEs namely (i) Hindustan Cables Ltd., (ii) Brahmaputra Valley Fertilizer Corporation Ltd. and (iii) Madras Fertilizers Ltd.
- Out of these 58 cases, the Government has approved revival proposals in respect of 36 cases of CPSEs and winding up of two enterprises namely Bharat Ophthalmic Glass Limited and Bharat Yantra Nigam Ltd. as on 30.9.2009. Out of the 36 cases of revival

approved by the Government till September, 2009, 15 were approved during 2005-06, 11 cases were approved during 2006-07, 6 cases have been approved during 2007- 08, 4 cases have been approved during 2008- 09, and 2 cases have been approved during 2009- 10 (upto September, 2009). The restructuring/ revival proposals approved by the Government involved a total expenditure of Rs. 16253.36 crore including Rs. 2920.71 crore as cash assistance and Rs. 12332.65 crore as non-cash assistance. The enterprise-wise details of cash and non-cash assistance in respect of approved proposals are given in Annex-12.2. Government have approved on 26.11.2007 transfer of Bharat Heavy Plates and Vessels Ltd. to BHEL and merger of Bharat Refractories Ltd. with SAIL on 24.4.2008. BIFR approved on 13.6.2008 merger of Praga Tools Ltd. with HMT Machine Tools Ltd. w.e.f. 1.4.2007. Government also approved on 7.2.2008 for transfer of Bharat Wagon & Engineering Co. Ltd. (BWEL) from D/o Heavy Industries to M/o Railways and administrative control of it was transferred w.e.f. 13.8.2008.

- In addition to the above, Government have already approved revival package for Nagaland Pulp & Paper Co. Ltd. with a total assistance of Rs. 787.54 crores (Rs. 552.44 crores cash and Rs. 235.10 crores as non-cash). Government have also approved second revival package for Heavy Engineering Corporation (HEC) on 4th September, 2008 at a total cost of Rs. 615.43 crores (Rs. 310 crores as cash and Rs. 305.43 crores as non-cash). Similarly, the

Government have approved on 7.2.2008 a one time interim grant of Rs. 200 crores as non-plan funds to Fertilizer & Chemicals (Travancore) Ltd (FACT) to enable it to sustain its operation till 31.3.2008. This package is in addition to the revival package approved in March, 2006. In order to revive, ITI Ltd., the Government have sanctioned a sum of Rs. 1427 crores (Rs. 1403 crores as cash and Rs. 24 crores as non-cash) from December, 2004 till January, 2009. Further, the Government has also approved on 20.2.2009, inter alia, Rs. 3000 crores towards revival of ITI Ltd. Government have also approved 2nd revival package on for NTC for Rs. 6129.75 crores by way of waiver of Government of India loans and interest thereon. The Government have also approved proposal of converting Semi-Conductor Complex Ltd. into a Society under the Department of Space on 23.2.2006. The proposal for transfer of assets, liabilities and manpower of National Instruments Ltd. (Kolkata) to Jadavpur University, Government of West Bengal was approved on 8.2.2007 (Table 12.4). Government have also approved revival of Hindustan Fertilizer Corpn. Ltd. (Barauni Unit) on October 30, 2008 through Special Purpose Vehicle to be promoted by Fertilizer PSUs/ Fertilizer Co-operatives. The Government have established an Empowered Committee of Secretaries (ECS) with the mandate to evaluate all options of revival of closed units of FCI and HFCL, and to make suitable recommendations for consideration of the Government.

STATUS OF CPSEs REGISTERED WITH BIFR AS ON 30.06.2009

S. No.	Case No. and year of reference	CPSE	Date of orders
1	2	3	4
A. Revival Scheme sanctioned			
1.	518/1992	The British India Corpn. Ltd., Kanpur, (Uttar Pradesh) @	17.12.2002/ 29.11.2007
2.	521/1992	Projects and Development India Ltd., Dhanbad (Jharkhand)	26.3.2004 / 19.4.2006 *
3.	525/1992	Bharat Refractories Ltd., Bokaro Steel City (Jharkhand) @	13.1.2004 / 20.04.2006 *
4.	528/1992	Braithwaite & Co. Ltd., Kolkata (West Bengal) @	17.10.1995 / 29.6.2006 *
5.	531/1992	National Instruments Ltd., Kolkata (West Bengal)	1.10.2002 / 13.5.2008 / 04.08.2008
6.	507/1994	Hindustan Fluorocarbons Ltd., Hyderabad (Andhra Pradesh) @	24.7.2003*
7.	501/1996	Cement Corporation of India Ltd., New Delhi (Delhi)	05.12.2005 / 21.3.2006 / 17.06.2008*
8.	501/1997	Hindustan Antibiotics Limited, Pune (Maharashtra)	5.6.2007 / 14.10.2008
9.	501/1998 /501/2000	Eastern Coalfields Limited, Burdwan (West Bengal) @	01.06.1998/ 2.11.2004 / 12.6.2007
10.	501/2003	Andrew Yule and Company Ltd., Kolkata (West Bengal) @	20.8.2007/ 30.10.2007*
11.	501/2006	HMT Machine Tools Limited, Bangalore (Karnataka)	2.11.2006 / 12.6.2008
B. Scheme Sanctioned by AAIFR			
12.	502/1999	Hindustan Vegetable Oils Corpn. Ltd., New Delhi (Delhi) @	7.12.2001 / 23.07.2008
C. Winding up Notice Issued			
13.	503/505/2002	Hindustan Cables Ltd., Kolkata (West Bengal)	21.03.2003/ 25.07.2008
D. Winding up Recommended			
14.	507/1992	Triveni Structurals Ltd., Allahabad (Uttar Pradesh)	5.6.2003
15.	511/1992	Heavy Engineering Corpn. Ltd., Ranchi (Jharkhand)	6.7.2004*
16.	514/1992	Orissa Drugs & Chemicals Ltd., Bhubaneswar (Orissa)	8.4.2003
17.	515/1992	Fertilizers Corpn. of India Ltd., New Delhi (Delhi)	2.4.2004
18.	503/1995	Hindustan Photofilms Mfg. Co. Ltd., Ootacamund (Tamilnadu)	30.1.2003
E. CPSEs recommended for winding up and have been 'closed'			
19.	505/1992	Bharat Gold Mines Ltd., Kolar Gold Fields (Karnataka)	12.6.2000

20.	506/1992	Tannery and Footwear Corporation of India Ltd., Kanpur (Uttar Pradesh)	14.2.1995
21.	508/1992	Cycle Corporation of India Limited, Kolkata (West Bengal) @	10.7.2000
22.	510/1992	Mining and Allied Machinery Corporation Ltd., Durgapur (West Bengal)	29.6.2001
23.	513/1992	National Bicycle Corporation of India Ltd., Mumbai (Maharashtra) @	20.12.1993
24.	520/1992	Bharat Process and Mechanical Engineers Ltd., Kolkata (West Bengal) @	22.7.1996
25.	524/1992	Weighbird India Limited, Kolkata (West Bengal) @	17.2.1997
26.	526/1992	Bharat Brakes & Valves Ltd., Kolkata (West Bengal) @	27.9.2002
27.	527/1992	Cawnpore Textiles Ltd., Kanpur (Uttar Pradesh) @	19.1.1995
28.	529/1992	Smith Stanistreet & Pharmaceuticals Ltd., Kolkata (West Bengal) @	3.12.2001
29.	532/1992	Bharat Ophthalmic Glass Ltd., Durgapur (West Bengal)	19.6.2003
30.	538/1992	Bengal Immunity Limited, Kolkata (West Bengal) @	25.2.2003
31.	504/1994	Southern Pesticides Corporation Limited, Hyderabad (Andhra Pradesh)	1.11.2001
32.	506/1994	Rayrolle Burn Ltd., Kolkata (West Bengal) @	13.7.2001
33.	503/1999	Pyrites, Phosphates & Chemicals Ltd., Rohtash (Bihar)	20.11.2002

F. Dismissed as 'Non-maintainable'

34.	502/1992 / 601/1998	Nagaland Pulp & Paper Co. Ltd., Mokokchung, (Nagaland)	13.11.1995 / 25.5.2007*
35.	504/1997	Manipur State Drugs & Pharmaceuticals Ltd., Imphal (Manipur) \$\$	17.11.1997
36.	502/2002	Central Coalfields Ltd., Ranchi (Jharkhand)	29.11.2002*
37.	517/1992/ 504/2002	Biecco Lawrie Limited, Kolkata (West Bengal) @	27.3.2003 *

G. Declared Sick / Draft Revival Scheme (DRS) Awaited / Under Examination / Process

38.	503/1992	Indian Drugs and Pharmaceuticals Limited, Gurgaon (Haryana)	28.3.2006 / 29.9.2008
39.	509/1992	Richardson & Crudass (1972) Ltd., Mumbai (Maharashtra) @	24.9.2007 / 04.09.2008 / 27.05.2009
40.	516/1992	Hindustan Fertilizer Corpn. Ltd., New Delhi (Delhi)	1.2.2007 / 05.12.2008 / 26.03.2009
41.	523/1992	Tyre Corporation of India Ltd., Kolkata (West Bengal) @	20.2.1997 / 10.3.2008 / 19.05.2009
42.	506/1993	National Jute Manufactures Corporation Ltd. Kolkata (West Bengal)	8.7.2004 / 24.11.2008 / 05.03.2009
43.	588/1994	Burn Standard Co. Ltd., Kolkata (West Bengal) @	16.4.2007 / 30.9.2008

44.	502/1996	Maharashtra Antibiotics & Pharma. Ltd., Nagpur (Maharashtra)	4.7.2000 / 16.12.2008
45.	502/1998	NEPA Ltd., Neapanagar (Madhya Pradesh)	29.5.2007 / 15.05.2008 / 26.02.2009
46.	501/1999	Birds Jute and Exports Ltd., Kolkata (West Bengal) @	24.6.2004 / 07.08.2008
47.	501/2001	Bharat Wagon & Engg. Co. Limited, Patna (Bihar) @	11.2.2004 / 25.11.2008 / 24.06.2009
49.	503/2004	Bharat Heavy Plates and Vessels Limited, Visakhapatnam (Andhra Pradesh)	6.10.2005 / 29.08.2008 / 25.03.2009
50.	505/2004	Tungabhadra Steel Products Limited, Tungabhadra Dam (Karnataka)	4.8.2005 / 11.12.2006 / 09.03.2009
51.	502/2005	HMT Bearings Limited, Hyderabad (Andhra Pradesh)	13.2.2006 / 23.04.2009
H. Declared 'No Longer Sick'			
52.	504/1992	Scooters India Ltd., Lucknow (Uttar Pradesh)	1.7.2000
53.	512/1992	Vignyan Industries Ltd., Tarkere (Karnataka)	27.5.2003 *
54.	503/1997	North Eastern Regional Agri. Marktg. Corpn., Guwahati (Assam)	20.8.2001*
I. Dropped (Positive Networth)			
55.	502/1997/ 503/1998	Bharat Immunologicals & Biologicals Corporation Limited, Buland Sahar (Uttar Pradesh)	1.8.2002
56.	502/2000	Hindustan Salts Limited, Jaipur (Rajasthan)	22.8.2005 / 15.12.2008*
57.	501/2002 / 502/2003	Maharashtra Elektros melt Ltd., Mumbai (Maharashtra)	27.6.2005*
58.	501/2004	Hindustan Insecticides Ltd., New Delhi (Delhi)	18.9.2007 *
59.	501/2005	Hindustan Organic Chemicals Limited, Rasayani, Raigad (Maharashtra)	21.11.2005 / 28.05.2008 *
J. Others / Abated / Deregistered from BIFR			
60.	501/1992	Bharat Pumps & Compressors Ltd., Allahabad (Uttar Pradesh)	6.2.2007*
61.	504/2004	ITI Limited, Bangalore (Karnataka)	3.10.2005 / 27.11.2008 / 23.02.2009
62.	519/1992	The Elgin Mills Co. Ltd., Kanpur (Uttar Pradesh) @	13.3.2007
K. Failed & Reopened			
63.	533/1992	Bengal Chemicals & Pharmaceuticals Ltd., Kolkata (West Bengal) @	31.3.1995 / 03.02.2009
64.	509/1993	Instrumentation Ltd., Kota (Rajasthan)	23.12.1998 / 24.05.2006
L. Pending Determination of Sickness			
65.	501/2007	Madras Fertilizer Ltd., Chennai (Tamilnadu)	02.04.2009

@ Taken over PSEs (24)

* Profit making during 2007-08 (18) \$\$ Since closed

Note : Since Mandya National Paper Mills Limited wound up, Jessop & Co. Ltd. privatized, U.P. Drugs and Pharmaceuticals Limited transferred to the U.P. Government, All 9 subsidiaries of NTC (Holding) Ltd. merged with NTC (Holding) , Indian Iron and Steel Co. Limited merged with SAIL and Praga Tools Ltd. merged with HMT Ltd. These CPSEs have not been included in the list of BIFR referred CPSEs.

**Cash and Non-cash Assistance approved by the Government in respect of BRPSE
recommended proposals upto 30.9.2009**

S. No.	Name of the CPSE	Assistance (Rs. In Crores)		
		Cash #	Non-Cash @	Total
1.	Hindustan Salts Ltd.	4.28	73.30	77.58
2.	NTC including its subsidiaries	39.23	–	39.23
3.	Bridge & Roof Co. (India) Ltd.	60.00	42.92	102.92
4.	BBJ Construction Co. Ltd.		54.61	54.61
5.	HMT Bearings Ltd.	7.40	43.97	51.37
6.	Praga Tools Ltd.	5.00	209.71	214.71
7.	Braithwaite & Company Ltd.	4.00	280.21	284.21
8.	British India Corporation Ltd.	47.35	–	47.35
9.	Central Inland Water Transport Corporation Ltd.	73.60	280.00	353.60
10.	Heavy Engineering Corporation Ltd.	102.00	1116.30	1218.30
11.	Cement Corporation of India Ltd.	184.29	1267.95	1452.24
12.	Richardson & Cruddas Ltd.	–	–	–
13.	Hindustan Antibiotics Ltd.	137.59	267.57	405.16
14.	Hindustan Organic Chemicals Ltd.	250.00	NA	250.00
15.	Fertilizers & Chemicals (Travancore) Ltd.	–	670.37	670.37
16.	Tungabhadra Steel Products Ltd.	–	–	–
17.	Bharat Ophthalmic Glass Ltd. ##	9.80	–	9.80
18.	Hindustan Insecticides Ltd.	–	267.29	267.29
19.	Mineral Exploration Corporation Ltd.	–	104.64	104.64
20.	Central Electronics Ltd.	–	16.28	16.28
21.	Eastern Coal Fields Ltd.	–*	–*	–*
22.	Bharat Pumps and Compressors Ltd.	3.37\$	153.15	156.52\$
23.	Bengal Chemicals & Pharmaceuticals Ltd.	207.19	233.41	440.60
24.	HMT Machine Tools Ltd.	723.00	157.80	880.80
25.	MECON Ltd.	93.00**	23.08	116.08
26.	Andrew Yule & Co. Ltd.	– &	457.14	457.14
27.	Hindustan Copper Ltd.	–	612.94	612.94
28.	Bharat Yantra Nigam Ltd.##	3.82	7.55	11.37
29.	Bharat Heavy Plate Vessels Ltd.	–	–	–\$\$
30.	State Forms Corporation of India Ltd.	21.21	124.42	145.63
31.	Bharat Refractories Ltd.	–	479.16	479.16
32.	Tyre Corporation of India Ltd.	–	1018.45	1018.45&&
33.	NEPA Ltd.	–	–	–@@
34.	Bharat Wagon & Engineering Company Ltd.	52.79~	258.73~	311.52~
35.	Konkan Railway Corporation Ltd.	857.05	3222.46	4079.51
36.	National Projects Construction Corporation Ltd.	–	219.43***	219.43***
37.	Instrumentation Ltd.	48.36	549.36	597.72\$\$\$
38.	Hindustan Prefab Ltd.	–	128.00	128.00
Total		2934.33*	12340.20*	15274.53*

Note :

Cash Assistance may involve budgetary support through equity/loan/grants

- @ Non-cash Assistance may involve waiver of interest, penal interest, GOI loan, Guarantee fee, conversion of loan into equity/debentures etc.
- ## Government have approved closure/winding up of these CPSEs.
- & The issue of infusion of funds by GOI or by Joint Venture or a Strategic Partner will be sorted out by M/o Finance and the M/o Heavy Industries.
- * The revival plan approved by the Government inter alia envisaged non-cash assistance of Rs.2470.77crores and waiver of service charges of Rs.14 crores per annum from 2004-05 from Coal India Ltd.
- \$ In addition ONGC and BHEL would extend cash support to the extent of Rs.150 crores and Rs.20 crores respectively.
- ** Excludes continuation of 50% interest subsidy not exceeding Rs.6.50 crores per annum on VRS loans
- \$\$ Cabinet approved “in principle” the takeover of BHPV by BHEL with the direction that the valuation of BHPV be carried out prudently on the basis of established principles and if the takeover is not found feasible, the matter be brought back before the Cabinet.
- && Parliament had approved the Tyre Corporation of India Ltd. (Disinvestment of Ownership) Bill 2007 for changing the public sector Enterprises Character of the company. Disinvestment after cleaning the balance sheet.
- @@ Proposal to revive NEPA Ltd. through JV route in the private sector and a Bill seeking Parliamentary approval for induction of such JV has been introduced in Parliament.
- *** In addition Govt. had also approved the conversion of cumulative interest due & accrued on GOI loan as on the date of conversion into equity capital and further written down to 10% of value.
- \$\$\$ Interest free mobilization advance of Rs.30 crores from BHEL for technological up-gradation and diversification which would be repaid through supplies to be made to BHEL against their orders. Interest free advance of Rs.25 crores from BHEL to ILK at the beginning of each year for the next three years from 2008-09 which will be adjusted against supplies to BHEL in the same year.
- ~ Includes Rs.2.30 crores cash assistance and Rs.5.00 crores non-cash assistance in addition to waiver of interest on GOI loan of Rs.4.18 crores (2.51+1.67) on account of reliefs and concessions to BBUNL for financial restructuring of Bharat Wagon and Engineering Company Ltd. for corresponding changes in books of accounts of these two companies.

DISINVESTMENT IN CENTRAL PUBLIC SECTOR ENTERPRISES

13.1 Background

The policy on 'Disinvestment' has evolved over the years. Disinvestment of Government equity in Central Public Sector Enterprises (CPSEs) began in 1991-92. The chronology of evolution of the policy on disinvestment since 1991-92 is given in Annex-13.1.

From 1991-92 to 1996-97, disinvestment in CPSEs was handled by the Department of Public Enterprises. Subsequently, the Department of Economic Affairs, Ministry of Finance took over the task of disinvestment in CPSEs.

13.2 Public Sector Disinvestment Commission

The Ministry of Industry (Department of Public Enterprises) vide its resolution dated 23rd August, 1996, constituted a Public Sector Disinvestment Commission for a period of three years with Mr. G.V. Ramakrishna as its full time Chairman. The term of the Commission was further extended till 30th November, 1999. The Commission submitted its (12) reports on 58 CPSEs.

The Commission was reconstituted in July, 2001 for a period of two years with Dr. R.M. Patil as its (part-time) Chairman. The term of this Commission was subsequently extended till October, 2004. The reconstituted Commission submitted its reports on 41 CPSEs, including review cases of earlier Commission's recommendations on 4 CPSEs. The term of the Commission expired on 31st October, 2004 and the Commission was wound up.

13.3 Department of Disinvestment, Ministry of Finance

The Department of Disinvestment (Ministry of Finance) was formed on 10th December, 1999 to handle the following functions:

- a. (i) All matters relating to disinvestment of Central Government equity in CPSEs.
- (ii) All matters relating to sale of Central Government equity through offer for sale or private placement, in the erstwhile CPSEs.

- b. Decisions on the recommendations of the Disinvestment Commission on the modalities of disinvestment, including restructuring.
- c. Implementation of disinvestment decisions, including appointment of advisers, pricing of shares, and other terms and conditions of disinvestment.
- d. Matters relating to Disinvestment Commission.
- e. Issues relating to CPSEs for purposes of disinvestment of Government equity only.
- f. Financial policy in regard to the utilization of the proceeds of disinvestment, channelised into the National Investment Fund.

*Note: *All other post-disinvestment matters, including those relating to and arising out of the exercise of 'call-option' by the Strategic Partner in the erstwhile CPSEs, shall continue to be handled by the administrative Ministry (or Department concerned), where necessary, in consultation with the Department of Disinvestment.*

The Department was later elevated in 2001 and became the Ministry of Disinvestment. Subsequently from 2004, it has once again been turned into a Department of the Ministry of Finance.

13.4 Evolution of Disinvestment Policy

The policy of disinvestment has largely evolved through the policy statements of Finance Ministers in their Budget Speeches. The policy, as evolved, is enumerated below:

- In the Interim budget 1991-92, it was announced that the Government of India would divest upto 20% of its equity in selected PSU's in favor of mutual funds, financial and institutional investors belong to the public sector.
- In the budget speech of 1992-93, the cap of 20% was re-instated and the list of eligible investor was enlarged to include FII's, employees and OCB's.
- In April, 1993, the Rangarajan Committee recommended for divestment upto 49% of

CPSE's equity for industries explicitly reserved for the public sector and over 74% in other industries. The Government did not, however, take any decision on its recommendations.

- As per the Common Minimum Programme, the Finance Minister in his Budget Speech announced the setting up of Disinvestment Commission for 3 years. The Common Minimum Programme also emphasized on greater transparency in the disinvestment process.
- In the Budget Speech of 1998-99, the Government announced that shareholding in CPSEs may be brought down to 26% on a case to case basis, excluding strategic CPSEs (where Government would retain majority shareholding). It was also stated that the interest of workers will be protected in all cases. On 16th March, 1999, the Government accordingly classified these enterprises into strategic and non strategic CPSEs. Enterprises belonging to the following areas were declared as strategic CPSEs:
 - Arms and ammunition (and the allied items of defence equipment), defence aircrafts and warships;
 - Atomic energy (except in the areas related to the generation of nuclear power and applications of radiation and radio-isotopes to agriculture, medicine and non-strategic industries);
 - Railway transport.

(All other PSE's were to be considered non strategic).

- In the Budget Speech of 1999-2000, it was announced that the Government will continue to strengthen the strategic CPSEs and "privatize" the non-strategic ones through gradual disinvestment or strategic sale and will devise viable rehabilitation strategies for the weak units.
- In the Budget Speech of 2000-01, the Government stressed on restructuring and revival of viable CPSEs; on closing down of CPSEs which cannot be revived and to bring down Government shareholdings in non-

strategic CPSEs to 26% or lower, if necessary. It was further announced that the receipts from disinvestment will be used for social sectors, restructuring of CPSEs and for retirement of public debt.

- In May, 2004, the Government adopted the National Common Minimum Programme (NCMP), which outlined the policy of the Government with respect to CPSEs as mentioned below:
 - a. The Government pledged to devolve full managerial control and commercial autonomy to successful, profit-making companies operating in competitive environment. It was declared that CPSEs will not be privatized. The 'Navratna' CPSEs were allowed to raise resources from the capital market. It was also announced that efforts will be made to modernize and restructure 'sick public sector companies'.
 - b. Sale of small proportions of Government equity through IPO/FPO was favoured, without changing the character of (PSE's. In this regard, it approved listing of unlisted profitable CPSE's subject to residual equity of the Government remaining atleast 51% and Government retaining the control over the management.
 - c. The Government also constituted the 'National Investment Fund' NIF. The proceeds from disinvestment of CPSE's was channelized into NIF. It was , furthermore, declared that 75% of annual income of NIF will be used to finance selected social sector schemes in education, health and employment, and the rest 25% of the annual income to meet the capital investment requirements of profitable and revivable CPSE's.
 - d. On 27th January, 2005 the Government, approved in principle the following:
 - a. Listing of currently unlisted profitable CPSEs, each with a net worth in excess of Rs. 200 crore, through an Initial Public Offering (IPO) either in conjunction with a fresh equity issue by the CPSE concerned or independently by the Government on a case to case basis, subject

to the residual equity of the Government remaining at least 51 per cent and the Government retaining management control of the CPSE;

- b. Sale of minority shareholding of the Government in listed and profitable CPSEs either in conjunction with a Public Issue of fresh equity by the CPSE concerned or independently by the Government subject to the residual equity of the Government remaining at least 51 per cent and the Government retaining management control of the CPSE; and
- c. Constitution of a “National Investment Fund”.
- e. On 25th November, 2005, Government decided, in principle, to list unlisted, profitable CPSEs on domestic stock exchanges and to selectively sell small portions of equity in these CPSEs (other than the Navratna CPSEs).

13.5 Current Policy on Disinvestment

The current policy on disinvestment emanate from the following pronouncements by the Government:

- (i) ‘Our fellow citizens have every right to own part of the shares of public sector companies while the Government retains majority shareholding and control. My Government will develop a roadmap for listing and people-ownership of public sector undertakings while ensuring that Government equity does not fall below 51 %’. (President’s Address to Joint Session of both the Houses of Parliament dtd. 4.6.2009)
- (ii) “Public Sctor Undertakings (PSUs) are the wealth of the nation, and part of this wealth should rest in the hands of the people. While retaining at least 51 per cent Government equity in our enterprises, I propose to encourage people’s participation in our disinvestment programme. Here, I must state clearly that public sector enterprises such as banks and insurance companies will remain in the public sector and will be given all support, including capital infusion, to grow and remain competitive. (FM’s Budget Speech dtd. 6.7.2009)

13.5.1 Objective of Listing

There are inherent advantages in the listing of shares of profitable CPSEs on the stock exchanges.

This process will enhance shareholder’s value in such CPSEs and bestow the following benefits on these listed companies:

- a. Higher disclosure levels will bring greater transparency, liquidity and credibility to their stocks;
- b. Enhance corporate governance through induction of independent directors’ on the Boards of these CPSEs, which is mandatory for listed companies;
- c. Higher levels of public scrutiny will enforce ethical conduct of business in these CPSEs and thus improve corporate culture;
- d. Expectations of investors / shareholders will bring pressure upon the management to perform and to unlock the true value of these enterprises;
- e. Listing will enable wider shareholding of CPSE stocks, and people-ownership of CPSEs.

13.5.2 Broad approach to Disinvestment

The Department of Disinvestment in consultation with Ministries/Departments will to identify cases for disinvestment. The focus will first be on profitable CPSEs that are listed with less than 10% public shareholding (and make them compliant through Follow-on Public Offerings). Profitable unlisted companies will be also listed on stock exchanges through Offer-for-Sale or through Issue of Fresh Equity by the companies or both in conjunction.

13.6 Disinvestment in CPSEs (2004-05 to October 2009)

- The Government approved disinvestment of 5.25% equity of National Thermal Power Corporation Limited (NTPC) on 12th July, 2004 (out of Government’s shareholding) in conjunction with the IPO by the Company. The IPO that was completed in October 2004 fetched an amount of Rs.2684.07 crore.
- The Government sold 8% equity in Maruti Udyog Limited (MUL) in January 2006 out of its residual shareholding of 18.28% to public sector financial institutions (FIs) and public sector banks through a differential pricing method. The Government realized, in the process, Rs.1567.60 crore from this sale.

In March 2006, 0.01% equity of the Company was sold to the employees and the Government realized an amount of Rs.2.08 crore. On 21st December 2006, the Government decided to disinvest its entire residual shareholding of 10.27% in Maruti Udyog Limited. The shareholding of 10.27% was finally disinvested in May 2007 through the differential pricing method to Indian public sector FIs, public sector banks and Indian Mutual Funds. The Government realized in the process Rs.2277.62 crore from this disinvestment.

- In February, 2007, the Government decided to piggy-back with an 'Offer-for-Sale' of 10 per cent, 5 per cent and 5 per cent of the pre-issue paid-up capital of REC, PGCIL and NHPC respectively. The IPO of PGCIL was completed in October 2007 and the Government realized an amount of Rs.994.82 crore. The IPO of REC was completed in March 2008 and the Government realized an amount of Rs.819.63 crore. The IPO of NHPC was completed in August 2009 and the Government realized an amount of Rs. 2012.85 crore. In August, 2007, the Government approved disinvestment of 10% equity in Oil India Ltd, out of its shareholding alongwith fresh issue of equity of 11% of the post-issue paid-up capital of Oil India Limited and simultaneous disinvestment of 10% equity of Government in favour of IOC, HPCL and BPCL in the ratio of 2:1:1, at the market discovered price. The IPO was completed in September 2009 and the Government realized an amount of Rs.2247.046 crore.

The total receipts from disinvestment over the period 1st April, 1999 till 30th September, 2009, amounted to Rs.57,682.93 crore. The details of the annual realization and the methodologies adopted for disinvestment, are given at Annex 11.1.

13.7 National Investment Fund

The Government decided to constitute a "National Investment Fund" (NIF) on 27th January 2005,. The Fund is maintained outside the Consolidated Fund of India, and into which the realisation from sale of minority shareholding of the Government in profitable CPSEs would be channelized. The income from the Fund will, be used for the broad objectives of (a) Investment in social sector projects

and programmes which promote education, health care and employment; and (b) Investment in select profitable and revivable public sector enterprises that promise adequate returns, through enlarging their capital base.

13.7.1. The salient features of NIF are mentioned below :

- i. The proceeds from disinvestment of CPSEs will be channelized into the National Investment Fund which is to be maintained outside the Consolidated Fund of India.
- ii. The corpus of the National Investment Fund will be of a permanent nature.
- iii. The Fund will be professionally managed to provide sustainable returns to the Government, without depleting the corpus. Select public sector Mutual Funds have been entrusted with the management of the corpus of the Fund.
- iv. 75 per cent of the annual income of the Fund will be used to finance select social sector schemes, that promote education, health and employment. The residual 25 per cent of the annual income of the Fund will be used to meet the capital investment requirements of profitable and revivable CPSEs that yield adequate returns, in order to enlarge their capital base to finance expansion/diversification.

13.7.2 Fund Managers of NIF

The following Public Sector Mutual Funds have been appointed (initially) as Fund Managers to manage the funds of NIF under the 'discretionary mode' of Portfolio Management Scheme which is governed by SEBI guidelines, namely.

- i. the UTI Assets Management Company Ltd.
- ii. the SBI Funds Management Company (Pvt.) Ltd.
- iii. the Jeevan Bima Sahayog, Asset Management Company Ltd.

13.7.3 Corpus of NIF

The present corpus of the Fund is Rs. 1814.45 crore being the proceeds from the disinvestment in Power Grid Corporation of India Limited and Rural Electrification Corporation. While the pay out on NIF, in the first year, stood at Rs.84.81 crores, it was Rs.206.21 crores in the second year. (Average income works out to 8.47% in the first year and 10.02% in the second year). The average income for the two years, therefore, works out to 9.245%, against the hurdle rate of 9.25%.

Details of the annual realization and the methodologies adopted for disinvestment are given in **Annexure-13.1**

Annex. 13.1

Chronology of the evolution of the policy on disinvestment since 1991-92

Date	Event
1991-1992 Interim Budget	Government announced its intention to divest upto 20% of Government equity in selected PSUs in favour of public sector institutional investors.
Industrial Policy statement dated 24-7-1991	In the case of selected enterprises, part of Government holdings in the equity share capital of the enterprises will be disinvested in order to provide further market discipline to the performance of public enterprises.
Rangarajan Committee-April, 1993	It emphasized the need for substantial disinvestment, and stated that while the percentage of equity to be divested should be not more than 49% for industries explicitly reserved for the public sector, it should be either 74% or 100% for others.
Budget speech – 1998-1999	“Government have also decided that in the generality of cases, the Government shareholding in public sector enterprises will be brought down to 26 per cent. In cases of public sector enterprises involving strategic considerations, Government will continue to retain majority holding. The interest of workers shall be protected in all cases.”
Budget speech –1999-2000	“Government strategy towards public sector enterprises will continue to encompass a judicious mix of strengthening strategic units, privatising non-strategic ones through gradual disinvestment of strategic sale and devising viable rehabilitation strategies for weak units.”
Cabinet decision dated 16.3.1999	Public Sector Undertakings (PSUs) have been classified into strategic and non-strategic areas for the purpose of disinvestment. Strategic PSUs would be those in the areas of: (a) Arms and ammunitions and the allied items of defence equipment, defence air-crafts and warships; (b) Atomic energy (except in the areas related to the generation of nuclear power and applications of radiation and radio-isotopes to agriculture medicine and non-strategic industries); (c) Railway transport. All other PSUs were to be considered as non- strategic. For the non-strategic PSUs, it was decided that the reduction of Government stake to 26% would not be automatic. Decision in regard to the percentage of disinvestment i.e., Government’s stake going down to less than 51% or to 26%, would be taken on the following considerations: (a) Whether the industrial sector requires the presence of the public sector as a countervailing force to prevent concentration of power in private hands, and (b) Whether the industrial sector requires a proper regulatory mechanism to protect the consumer interest before Public Sector Enterprises are privatised.

Budget speech 2000 – 2001	Government announced its decision to reduce its stake in the non-strategic PSUs even below 26%, if necessary. There would be increasing emphasis on strategic sale and the entire proceeds from disinvestment/privatisation would be deployed in social sector, restructuring of PSUs and retirement of public debts.
Decision dated 23.6.2000	In order to secure the presence of the public sector as a Countervailing force, the Government took the decision of not going for disinvestment of GAIL, IOC and ONGC, and retaining them as flagship companies.
Decision dated 7.9.2002	Central Public Sector Undertakings (PSUs), Central Government owned Cooperative Societies (where Government's ownership is 51% or more) should not be permitted to participate in the disinvestment of other PSUs as bidder. If in some specific cases any deviation from these restrictions is considered desirable in public interest, the Ministry/Department concerned may bring an appropriate proposal for consideration of the Core Group of Secretaries on Disinvestment.
Budget Speech 2003-2004	Details about the already announced Disinvestment Fund and Asset Management company, to hold residual shares post disinvestment, shall be finalised early in 2003-2004.
Budget Speech 2004-2005 (July 2004)	Disinvestment and privatization are useful economic tools. Government will selectively employ these tools, consistent with the declared policy. Government will establish a Board for Reconstruction of Public Sector Enterprises (BRPSE). The Board will advise the Government on the measures to be taken to restructure PSEs, including cases where disinvestment or closure or sale is justified. The disinvestment revenues will be part of the Consolidated Fund of India. While presenting the Budget for 2005-2006, report to the House the manner in which the said revenues have been or will be applied for specified social sector schemes.
Decision dated 27.1.2005	(i) Government decided, in principle, to list large, profitable Public Sector Enterprises (PSEs) on domestic stock exchanges and to selectively sell a minority stake in listed, profitable PSEs while retaining atleast 51% of the shares alongwith full management control so as not to disturb the Public Sector character of the companies. (ii) Government has also decided to constitute a "National Investment Fund" into which the realisation from sale of minority shareholding of the Government in profitable PSEs would be channelised. The Fund would be maintained outside the Consolidated Fund of India. The income from the Fund would be used for the following broad investment objectives: - (a) Investment in social sector projects which promote education, health care and employment; (b) Capital investment in selected profitable and revivable Public Sector Enterprises that yield adequate returns in order to enlarge their capital base to finance expansion/ diversification.
Decision dated 25.11.2005	Government decided, in principle, to list large, profitable CPSEs on domestic stock exchanges and to selectively sell small portions of equity in listed, profitable CPSEs (other than the Navratnas)

Annexure 13.2

SUMMARY OF RECEIPTS FROM DISINVESTMENT : (1991-92 to 30.9.2009)

Year	Budgeted receipt (Rs. crore)	Receipts through sale of minority shareholding in CPSEs (Rs. crore)	Receipts through sale of majority shareholding of one CPSE to another CPSE (Rs. crore)	Receipts through Strategic sale (Rs. crore)	Receipts from other related transactions (Rs. crore)	Receipts from sale of residual shareholding in disinvested companies / CPSEs (Rs. crore)	Total receipts (Rs. crore)	Transactions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1991-92	2,500	3,037.74	-	-	-	-	3,037.74	Minority shares sold in Dec, 1991 and Feb, 1992 by auction method in bundles of "very good", "good" and "average" companies
1992-93	2,500	1,912.51	-	-	-	-	1,912.51	Shares sold separately for each company by auction method.
1993-94	3,500	-	-	-	-	-	-	Equity of 6 companies sold by auction method but proceeds received in 94-95.
1994-95	4,000	4,843.10	-	-	-	-	4,843.10	Shares sold by auction method.
1995-96	7,000	168.48	-	-	-	-	168.48	Shares sold by auction method.
1996-97	5,000	379.67	-	-	-	-	379.67	GDR -VSNL
1997-98	4,800	910.00	-	-	-	-	910.00	GDR -MTNL
1998-99	5,000	*5371.11	-	-	-	-	5,371.11	GDR-VSNL; Domestic offerings of CONCOR and GAIL; Cross purchase by 3 Oil sector companies i.e. GAIL, ONGC and IOC.
1999-00	10,000	**1479.27	-	105.45	275.42	-	1,860.14	GDR-GAIL; Domestic offering of VSNL; capital reduction and dividend from BALCO; Strategic sale of MFIL.
2000-01	10,000	-	1,317.23	554.03	-	-	1,871.26	Sale of KRL, CPCL and BRPL to CPSEs; Strategic sale of BALCO and LJMC.
2001-02	12,000	-	-	3,090.09	2,567.60	-	5,657.69	Strategic sale of CMC, HTL, VSNL, IBP, PPL, hotel properties of ITDC and HCI, slump sale of Hotel Centaur Juhu Beach, Mumbai and leasing of Ashok Bangalore; Special dividend from VSNL, STC and MMTC; sale of shares to VSNL employees.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2002-03	12,000	-	-	2,252.72	1,095.26	-	3,347.98	Strategic sale of HZL, IPCL, hotel properties of ITDC, slump sale of Centaur Hotel Mumbai Airport, Mumbai; Premium for renunciation of rights issue in favour of SMC; Put Option of MFIL; Sale of shares to employees of HZL and CMC.
2003-04	14,500	12,741.62	-	342.06	-	2,463.73	15,547.41	Strategic sale of JCL; Call Option of HZL; Offer for Sale of MUL, IBP, IPCL, CMC, DCI, GAIL and ONGC; Sale of shares of ICI Ltd.
2004-05	4,000	2,700.06	-	-	64.81	-	2,764.87	Offer for Sale of NTPC; sale of shares to IPCL employees
2005-06	No target fixed	-	-	-	2.08	1,567.60	1,569.68	Sale of MUL shares to Indian public sector financial institutions & banks and employees
2006-07	No target fixed	-	-	-	-	-	-	
2007-08	No target fixed	1,814.45	-	-	-	2,366.94	4,181.39	Sale of MUL shares to Indian public sector financial institutions, public sector banks and Indian mutual funds and sale of PGCIL and REC shares through Offer for Sale.
Total		35,358.01	1,317.23	6,344.35	4,005.17	6,398.27	53,423.03	

* Out of Rs.5371.11, Rs. 4184 crore constitute receipts from cross purchase of shares of ONGC, GAIL and IOC.

** Out of Rs.1479.27, Rs.459.27 crore constitute receipts from cross purchase of shares of ONGC, GAIL and IOC.

PERFORMANCE OF PUBLIC SECTOR INSURANCE COMPANIES

Since the opening up of the insurance sector in 1999 with the enactment of Insurance Regulatory Development Act, the number of participants in the sector has been steadily going up, considering the vast potential in India. From six insurers in the year 2000, the number of players has gone up to 42 insurers operating in the life, non-life and reinsurance segments as in October, 2008. There is much greater competition, to-day in the market, although there is vast potential of expansion in India. As many as seven insurance companies (life and non-Life insurance) are functioning as public sector enterprises viz., the Life Insurance Corporation of India, the New India Assurance Company Limited, the National Insurance Company Limited, the Oriental Insurance Company Limited, the United India Insurance Company Limited, the General Insurance Corporation of India and the Agriculture Insurance Company of India Limited. The Public Sector Insurers are offering a variety of insurance policies ranging from Life insurance to Crop insurance.

14.1 Life Insurance Corporation of India (LIC)

The Life Insurance Corporation of India (LIC) was established in 1956 as a Statutory Corporation under Section 3 of the Life Insurance Act, 1956 to carry out life insurance business. The LIC has its Central Office in Mumbai and eight Zonal Offices at Mumbai, Kolkata, Delhi, Chennai, Hyderabad, Kanpur, Bhopal and Patna.

The Corporation also transacts business abroad and has branch offices in Fiji, Mauritius and United Kingdom. LIC also operates in overseas insurance markets through Joint Venture companies namely Life Insurance Corporation (International) B S C (C), registered in Bahrain, Kenindia Assurance Company Ltd. registered in Nairobi, Life Insurance Corporation (Nepal) Ltd registered in Kathmandu, in collaboration with Vishal Group Ltd, Nepal and Life Insurance Corporation (Lanka) Ltd registered in Colombo, in partnership with M/S Bartleet Transcapital Pvt. Ltd, Sri Lanka. An offshore company, Life Insurance Corporation (Mauritius) Offshore Ltd. registered in Nairobi is a Joint Venture Company between LIC

of India and GIC of India with focus on non-life reinsurance business with active participation of GIC. LIC along with Life Insurance Corporation (International) B S C (C), Bahrain, New India Assurance Company Ltd. & Al Hokair group of Saudi Arabia have registered a Joint Venture Company, namely, Saudi Indian Company for Co-operative Insurance in the Kingdom of Saudi Arabia to transact both Life and Non-Life Insurance business. The operating License for this Joint Venture has now been granted by the local Regulator. A Representative Office in Singapore, for which approval from local Regulator has already been obtained, is being opened shortly. Through International Operations, LIC covered a total number of 62,840 policies and also generated a total premium income worth Rs.725.75 crores in the F.Y. 2008-09.

The Life Fund of LIC as on 31.3.2009 amounts to Rs.8,07,317.43 crore. During 2008-09 the Corporation made payments of Rs.5962 crore under Death Claim cases, Rs.34744 crore under Maturity Claims and Rs.2812 crore under Annuities. Under Varishtha Pension Bima Yojana, the Corporation made payments of Rs.103.92 crore under Death Claim and Rs.641.12 crore under Annuities.

14.2 Janashree Bima Yojana

launched on 10th August 2000 is also administered by Life Insurance Corporation of India. The scheme replaced the Social Security Group Insurance Scheme (SSGIS) and Rural Group Life Insurance Scheme (RGLIS). The premium for the scheme is Rs.200/- per member per annum. Fifty per cent of the premium is borne by the Social Security Fund maintained with LIC and balance fifty per cent premium is borne by the member and / or Nodal Agency.

Table 14.1
Benefits under Janashree Bima Yojna

SI No.	Amount
1. On Natural Death	Rs.30,000
2. On Death or Total Permanent Disability due to accident	Rs.75,000
3. On Partial Permanent Disability	Rs.37,000

As on 31st March 2009, about 1.62 crore persons have been covered under the scheme.

14.2.1 Shiksha Sahayog Yojana

Is a scheme to provide scholarship of Rs.600/- per half year to the children of members of Janashree Bima Yojana who are studying in classes 9th to 12th (including ITI courses) as a free add on benefit. This benefit is limited to two children per family. During financial year 2008-09 an amount of Rs.97.21 crores was disbursed as scholarship in 13.09 lakh cases.

14.3 Aam Admi Bima Yojana

Launched on 2nd October 2007 is a new Social Security Scheme for Rural Landless Households. The head of the family or one earning member in the family of rural landless household would be covered under the scheme. The premium of Rs. 200/- per person per annum is shared equally by the Central Government and State Government.

Table 14.2
Benefits under Aam Admi Bima Yojna

Sl No.	Item	Amount
1.	On Natural Death	Rs. 30,000
2.	On Death or Total Permanent Disability due to accident	Rs. 75,000
3.	On Partial Permanent Disability	Rs. 37,000

As on 31st March 2009, about 71,71,556 heads of the families of rural households were covered under the scheme.

Scholarship of Rs.600/- per half year is available to the Children of members of Aam Admi Bima Yojana who are studying in classes 9th to 12th (including ITI courses) as a free add on benefit. This benefit is limited to two children per family. In addition to above the highlights of LIC's the performance in other significant parameters in the Financial Year 2008-09 are given below.

Table 14.3
Performance of LIC during the year 2008-09

Sl No.	Amount
1. Individual Policies Sold (Nos. in crores.)	3.58

2.	Total Income (Rs. In crore)	2,00,280
3.	Total Premium Income (Rs. In crore)	1,57,186
4.	Market Share in terms of number of Policy	70.52%
5.	Total No. of Death Claims settled (in lacs)	7.87
6.	Total No. of Maturity Claims settled (in lacs)	145.73
7.	Total No. of Agents as on 31.3.2009	13,44,856

14.4 Non-Life Insurance Companies

The non life insurance companies in the public sector are National Insurance Company Ltd. (NICL), New India Assurance Company Ltd. (NIACL), Oriental Insurance Company Ltd., (OICL) and United India Insurance Company Ltd. (UICL) providing insurance coverage for variety of purposes such as car insurance; medical insurance, insurance against fire etc. The over all performance of these companies (along with GIC) during the year in terms of Gross Direct Premium Income (GDPI) and Net Incurred Claim Ratio (ICR) are given below:

Table 14.4
Performance of non-life Insurance Companies (2007-08 and 2008-09)

		(Rs. in crore)					
Sl No.	Company	2007-08			2008-09		
		GDPI	ICR	Net Profit	GDPI	ICR	Net Profit
			(in%)			(in%)	
1.	National	4022	89	163	4296	93	(-) 149
2.	New India	6151	85	1401	6456	85	224
3.	Oriental	3900	90	9	4078	95	(-) 53
4.	United India	3740	87	632	4278	72	476

14.5 General Insurance Corporation of India (GIC)

The General Insurance Corporation of India (GIC) was set up as a Government company under the General Insurance Business (Nationalisation) Act, 1972 for the purpose of superintending, controlling and carrying on the business of 'General Insurance'. The GIC was authorised to carry out the general insurance business through its four subsidiaries

viz., National Insurance Company Ltd., New India Assurance Company Ltd., Oriental Insurance Company Ltd., and United India Insurance Company Ltd. With the notification of the General Insurance Business (Nationalisation) Amendment Act, 2002, the GIC was designated as the 'Indian Reinsurer' on 3rd November 2000 and its supervisory role over its subsidiaries ended. The ownership of these subsidiaries companies now rests with the Government of India.

The Registered Office of the Corporation is in Mumbai. Besides, the Corporation has liaison/area offices in New Delhi, Kolkata and Chennai to cater to the needs of clients in these metro cities. The Corporation has its presence in foreign reinsurance business through its Branch offices in Dubai and London, and a Representative Office in Moscow. Apart from reinsurance business, GIC Re continues to participate in the share capital of Kenindia Assurance Company Ltd (Kenya), India International Insurance Pte Ltd., Singapore, LIC (Mauritius) Offshore Limited and Asian Reinsurance Corporation, Bangkok. During the year, the Corporation made strategic investment in the shares of East Africa Reinsurance Company Ltd., in Kenya.

GIC Re, has a dominant presence in the domestic business, primarily on account of the obligatory cessions. The compulsory cessions have been gradually reduced to 10% from 20%. GIC Re is now competing for business on the basis of price, service and expertise. It has diversified its area of operation by accepting new lines such as life reinsurance, off-shore energy and liability business. Risk management and assessment capabilities are being enhanced to provide value added services to clients.

During the year 2007-08, the net premium of the Corporation was Rs. 7402 crores as against Rs 8,311.14 crore in the previous year. The net incurred claims were at Rs. 6217 crore. Profit before tax was Rs. 1812 crore as on 31st March 2009. The Corporation has recorded a profit after tax of Rs. 1407 crores as against Rs. 995.86 crore in 2007-08. The total assets and networth was Rs. 30,019 crore and Rs. 7784 crore respectively as on 31st March 2009. The present paid up capital of the Corporation is Rs. 430.00 crores.

14.6 Agricultural Insurance Company of India Limited (AICIL)

A new company for Agriculture Insurance,

namely, Agriculture Insurance Company of India Limited (AICIL) was registered under on the Companies Act 1956, with equity participation from General Insurance Corporation of India (35%), NABARD (30%), four Public Sector Insurance Companies (i.e., National, New India, Oriental & United India combined 30% @8.75% each). The paid up share capital of company is Rs. 200 crore against an authorized share capital of Rs. 1500 crore. It has been set up with the objective to implement various Crop Insurance Schemes and other insurance products relating to agriculture. The company commenced its business with effect from 1.4.2003 with the transfer of Crop Insurance Business from General Insurance Corporation of India. The company enjoys the distinction of being the largest crop insurance provider in the world in terms of the number of farmers insured annually.

During 2008-09, the Company insured around 195 lakh farmers constituting 16% of the total farm holdings in the country.

The main product i.e. "National Agricultural Insurance Scheme" (NAIS) is being implemented from Rabi 1999-2000 season replacing Comprehensive Crop Insurance Scheme (CCIS) and is presently implemented in 25 States and 2 Union Territories. AICIL is implementing the scheme on the behalf of the Ministry of Agriculture. The Scheme is available to all the farmers both, loanee and non loanee irrespective of the size of their holding. The main objective of the scheme is to protect the farmers against the losses suffered due to crop failure on account of natural calamities, such as drought, flood, hailstorm, cyclone, fire, pest/ diseases, etc., so as to indemnify the losses and to restore the credit worthiness of the loanee farmers for the ensuing season. The Scheme envisages coverage of all crops including cereals, millets, pulses, oilseeds and annual commercial and horticulture crops in respect of which past yield data is available.

At present 70 different food and oilseed crops are covered during Kharif and Rabi seasons. Among the annual commercial/ horticultural crops, sugarcane, potato, ginger, onion, turmeric, chilly, jute, tapioca, banana pineapple, brinjal, coriander, cumin, fennel, french bean, garlic, isabgul, fenugreek and tomato have been brought under insurance coverage. Flat premium

rates of 3.5% of sum insured for bajra and oilseeds, 2.5% for other crops during Kharif seasons and 1.5% for wheat and 2% for other crops during Rabi seasons are charged. In case the actuarial rates are less than prescribed flat premium rates mentioned above, the lower rate is applicable for food crops and oilseeds. In case of annual commercial and horticulture crops actuarial rates are charged. At present, 10% subsidy in premium is allowed for small and marginal farmers, shared equally by central and state government. The Scheme operates on the basis of 'Area Approach' for widespread calamities. The unit of insurance may be Gram Panchyat, Mandal, Hobli, Circle, Phirka, Block, Taluka etc., to be decided by the respective State/ UT Government.

Since the inception of the scheme and until Rabi 2008-09 about 1347 lakh farmers have been insured, covering an area of 211 million hectare for a sum insured value of Rs. 1,48,265 crore, against a premium of Rs. 4426 crore. Claims to the tune of about Rs. 14,782 crore have been reported so far benefiting nearly 356 lakh farmers. Claims are automatically calculated based on shortfall in the current season yield obtained from crop cutting experiments conducted by State Governments under General Crops Estimation Survey (GCES) as compared to threshold yield and settled through the rural banking network. The Company is making efforts to bring the remaining States/ UTs into the fold of NAIS.

14.6.1 Pilot Weather Based Crop Insurance Scheme (WBCIS)

As announced in Union Budget proposal of 2007-08, a Pilot Weather Based Crop Insurance Scheme (WBCIS) has been introduced. The Scheme operates on an actuarial basis with an element of subsidy from Union and State Governments. AICIL has since implemented the scheme in various States during Kharif and Rabi seasons. WBCIS is a parametric insurance product designed to provide insurance protection to the cultivator against adverse weather incidence during the cultivation period, such as deficit & excess rainfall, frost, heat (temperature), relative humidity, wind speed etc., which are deemed to adversely impact the crop yield. Crops and 'Reference Unit Areas (RUA)' are notified before the commencement of the season by the State Govt. Each RUA is linked to a Reference Weather Station (RWS), on the basis of which payout/ claims are processed. The payouts are made on the basis of adverse variations in the current

season's weather parameters as measured at Reference Weather Station (RWS). Claim under WBCIS is area based and automatic. During Kharif 2007 the scheme was implemented in Karnataka covering 70 Hoblis. During the Rabi 2007-08 season, the scheme was implemented in the states of Rajasthan, Chhattisgarh, Madhya Pradesh and Bihar. During the Kharif 2008 season, the scheme was implemented in 10 states namely Madhya Pradesh, Haryana, Punjab, Bihar, Rajasthan, Jharkhand, Maharashtra, Karnataka, Orissa and Tamilnadu. During the Rabi 2008-09 season, the scheme was again implemented in 10 states namely Haryana, Bihar, Rajasthan, Jharkhand, Karnataka, Tamilnadu, Kerala, West Bengal, Chhattisgarh and Himachal Pradesh. During 2008-09, 3,33,000 farmers were covered for a sum insured of 739 crore against the premium of Rs.68 crore in which farmers contribution was Rs.17 crore, rest being Government subsidy.

Besides the above, two Government sponsored schemes AICIL has designed and is implementing various crop insurance products to cater to the diverse needs of farming community of India. These are Apple Insurance, Bio-Fuel Insurance, Cardamom Insurance, Coconut Insurance, Grapes Insurance, Mango Weather Insurance, Potato Contract Farming Insurance, Pulpwood Tree Insurance, Rainfall Insurance Scheme-Coffee (RISC), Rabi Weather Insurance, Rubber Insurance, Varsha Bima/ Rainfall Insurance.

The Gross Direct Premium of the Company was Rs.833.44 crore and net premium was Rs.776.53 crore during financial year 2008-09, while net incurred claims during the year was Rs.530 crore. The net worth of the company stood at Rs.733 crore during 2008-09.

14.7 Awareness & Publicity Program

Reaching out to the poorest and the remotest farmers has always been a challenge to the company. To this end, the Company has undertaken various intensive awareness and publicity activities, both direct and indirect. A number of awareness workshops were organized at the State and District levels where farmers, bank officials, district level government functionaries and others were briefed about the services on offer. A special effort was made to give wide publicity to the newly launched schemes. Publicity has been done through various media like newspaper, radio, TV, fairs and exhibitions etc.